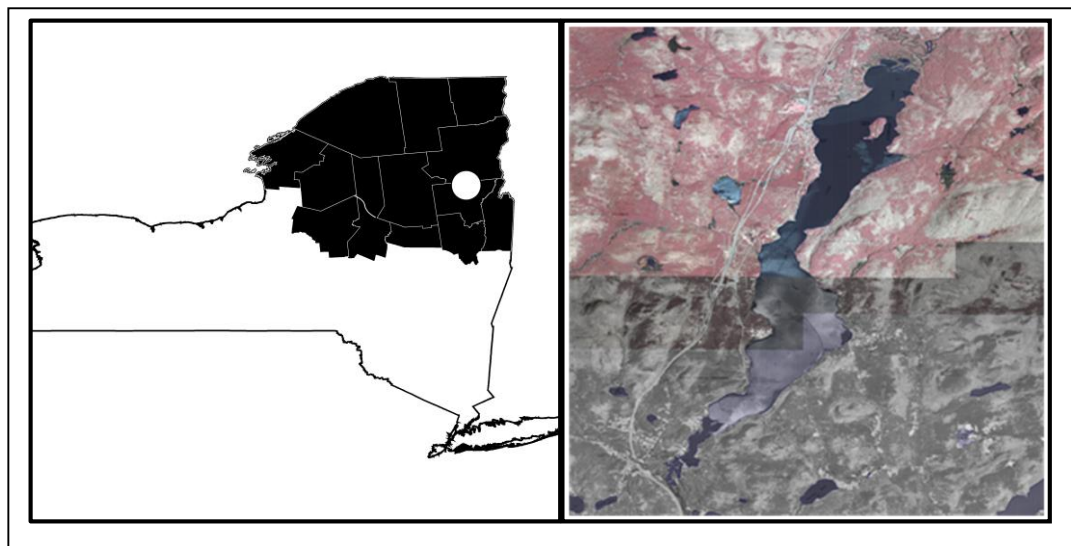


# CSLAP 2014 Lake Water Quality Summary: Schroon Lake

## General Lake Information

<b>Location</b>	Towns of Chester, Horicon and Schroon
<b>County</b>	Essex and Warren
<b>Basin</b>	Upper Hudson River
<b>Size</b>	1,670.6 hectares (4,126.4 acres)
<b>Lake Origins</b>	Natural
<b>Watershed Area</b>	136,000 hectares (335,920 acres)
<b>Retention Time</b>	0.4 years
<b>Mean Depth</b>	17 meters
<b>Sounding Depth</b>	44 meters
<b>Public Access?</b>	DEC launch
<b>Major Tributaries</b>	Schroon River, Alder Creek, Mill Brook, Rogers Brook, Spectacle Brook, Sucker Brook, Sucker Brook
<b>Lake Tributary To...</b>	Schroon River to Hudson River
<b>WQ Classification</b>	AA (potable water)
<b>Lake Outlet Latitude</b>	43.728
<b>Lake Outlet Longitude</b>	-73.812
<b>Sampling Years</b>	1987-1995, 1997-2014
<b>2014 Samplers</b>	Chuck and Nancy Harste, Timmy Salit, Kevin Nessler, Merritt Hulst, Glen Repko, M. Ryan, and A. and D. Dalto
<b>Main Contact</b>	Chuck Harste and Bob Colegrove

## Lake Map



## **Background**

Schroon Lake is a 4125 acre, class AA lake found in the Town of Schroon in Essex County and the town of Horicon in Essex County, in southeastern Adirondack region of New York State. It was first sampled as part of CSLAP in 1987.

It is one of nine CSLAP lakes among the more than 270 lakes found in Essex County, one of 12 CSLAP lakes among the 120 lakes in Warren County, and one of 31 CSLAP lakes among the more than 470 lakes and ponds in the Upper Hudson River drainage basin.

## **Lake Uses**

Schroon Lake is a Class AA lake; this means that the best intended use for the lake is for potable water use—drinking, contact recreation—swimming and bathing, non-contact recreation—boating and angling, aquatic life, and aesthetics. The lake is used by lake residents and visitors for swimming, boating and other recreation via shoreline properties and a public boat launch.

The state stocks about 7,300 six to seven inch lake trout and about 3,000 seven inch landlocked salmon each year at Schroon Lake. Fish species in the lake include Atlantic salmon, black crappie, brown bullhead, lake trout, largemouth bass, northern pike, pumpkinseed sunfish, rainbow smelt, rock bass, white sucker, and yellow perch.

General statewide fishing regulations are applicable in Schroon Lake. In addition, for sunfish, yellow perch, and pickerel, the open season lasts all year long, with no daily take or size limit. For landlocked salmon, open season lasts all year long, with a minimum size limit of 15 inches and a daily take limit of three fish. There is a daily limit of two lake trout and a minimum size of 18 inches. For trout, there is a daily take limit of five fish, but no size limits or limits on the length of the open season.

In addition to the statewide fish consumption advisories, there are several fish advisories governing consumption of fish in Schroon Lake. For lake trout greater than 27 inches in length, yellow perch more than 13 inches in length, or smallmouth bass of any size, the New York State Department of Health recommends no more than a single meal per month.

## **Historical Water Quality Data**

CSLAP sampling was conducted on Schroon Lake from 1987 to 1995, and 1997 to 2014. The CSLAP reports for each of the past several years can be found on the NYSFOLA website at <http://nysfola.mylaketown.com>. The most recent CSLAP report and scorecard for Schroon Lake can also be found on the NYSDEC web page at <http://www.dec.ny.gov/lands/77872.html>.

Schroon Lake has been sampled through a number of major monitoring programs. It was sampled in 1992 as part of the US Environmental Protection Agency (USEPA) Environmental Monitoring and Assessment Program (EMAP), a short-term nationwide monitoring program in which samples lakes are randomly chosen. The lake was also sampled in 1991 as part of the USEPA Temporal Integrated Monitoring (TIME) program used to evaluate lake acidity and other water quality issues. Schroon Lake was also sampled through several NYSDEC monitoring programs prior to CSLAP, including the Lake Classification and Inventory (LCI) survey and its predecessor ambient lake monitoring program in 1982, 1973 and 1972. The lake has also been

regularly sampled by NYSDEC Fisheries staff, recently in 1983, 1984, 1989, and 1998, and originally by the Conservation Department (the predecessor to the NYSDEC) as part of the Biological Survey of the Black River basin in 1931. The lake was also sampled extensively by Adirondack Ecologists (AE) through consulting work conducted by Steve LaMere.

The data from the USEPA and NYSDEC monitoring programs from the early 1970s through the early 1990s indicated that water quality conditions were similar to that measured through CSLAP starting in the late 1980s. There was depressed pH in the 1982 LCI surface sample, but it is likely that this was not representative of the lake.

The 1932 Biological Survey was intended in part to evaluate water quality conditions as they relate to fisheries management, so much of the information collected cannot be easily compared to the CSLAP dataset. The summary information for the lake included the following:

*“Within the area bounded by its shores are a variety of depths and bottom conditions which meet the life requirements of several species of fishes. A large part of the lakes is over 50 feet deep and in most places the bottom slopes rapidly away from the shores which are made for the most part of sand, gravel, or rubble. The oxygen and temperature relationships are especially good, the oxygen value of 8.1 parts per million which obtains on the bottom in 130 feet of water surpassing all other records secured in the deep part of lakes in the watershed. In spite of these excellent conditions in the deeper portions of the lake there are few records of lake trout for this season.*

*The principal weed beds are located at the head and foot of the lake and extend into the river at the foot. Few weeds grow along the greater part of the shoreline because of the hard bottom and the action of winds which have an unobstructed sweep of the length of the lake.*

*(Schroon Lake) has a rather irregular shoreline which provides several large bays, some of which support considerable weed areas. The most extensive weed areas were found in the narrow bay at the south end and in the mouth of the Schroon River. Another weed area was found at the north end west of the Schroon River”*

The water quality data showed much higher water transparency than in any of the monitoring programs conducted 40 to 60 years later. Dissolved oxygen levels were very high even at the lake bottom in 130 feet of water.

None of the major tributaries to the lake (Mill Brook, Sucker Brook, Spectacle Brook, Rogers Brook, and the Schroon River) have been sampled through the state Rotating Intensive Basins (RIBS) stream monitoring program. However, Mill Brook at Adirondack and the Schroon River at Schroon Falls were sample as part of the state stream biomonitoring program in 2001. The summary of those sampling results is as follows, as appearing in the 30 Year Trends in Water Quality of Rivers and Streams in New York State (1972-2002):

*“(Mill Brook) This small tributary of Schroon Lake was sampled at Adirondack in 2001, and was assessed as non-impacted. Two metrics were within the range of slight impact, and the headwater correction factor was applied to these. The stream habitat of boulders was not conducive to a diverse fauna.*

*(Schroon River) The upstream site at Schroon Falls was assessed as slightly impacted in 2001. Although the fauna contained many clean-water mayflies, stoneflies, and caddisflies, species richness was low, possibly due to the substrate of boulders embedded in sand. A similarly reduced fauna was found at the downstream Warrensburg site. Previous sampling assessed the Schroon Falls site as non-impacted in 1994. The Warrensburg site was assessed as non-impacted in 1994, slightly impacted in 1993, and non-impacted in 1987 and 1988. Further sampling of these sites is recommended to determine if the decline is genuine."*

## **Lake Association and Management History**

Schroon Lake is served by the Schroon Lake Association and the East Shore Schroon Lake Association. The former was founded in 1911, the latter in 1964, and these associations collectively oversee much of the management of the lake. This includes:

- Hiring a lake manager to evaluate water quality data, conduct milfoil hand harvesting and matting, and recommending other management actions
- Development of a lake management master plan
- Conducting association and outreach educational efforts
- Conducting Scientific studies
- Supporting management activities through donations and SLA arts and crafts show
- Coordinating volunteer weed watchers through the APIPP program
- Developing a volunteer Milfoil Scout Program

The Schroon Lake Association maintains a website at [www.schroonlakeassociation.com](http://www.schroonlakeassociation.com). The East Shore Schroon Lake Association maintains a website at [www.essla.org](http://www.essla.org).

## **Summary of 2014 CSLAP Sampling Results**

### **Evaluation of 2014 Annual and Monthly Results Relative to 1987-2014**

The summer (mid-June through mid-September) average readings are compared to historical averages for all CSLAP sampling seasons in the "Lake Condition Summary" table, and are compared to individual historical CSLAP sampling seasons in the "Long Term Data Plots – Schroon Lake" section in Appendix C.

### **Evaluation of Eutrophication Indicators**

No south basin samples were collected in 2014. Chlorophyll *a* samples (algae filters) were not submitted from the north basin in 2012 or 2013, and only one sample was submitted in 2014. Water clarity readings were slightly lower than usual in 2014, despite phosphorus readings that were close to normal. However, phosphorus levels have been slightly higher since the mid-2000s, although nearly all readings continue to be low.

Lake productivity is fairly stable (or varies unpredictably) over the course of the typical summer in both basins, although there is sometimes a slight increase in algae levels from June through August. Water clarity rose slightly from June through September in 2014, despite the lack of any similar changes in nutrients or algae levels.

The lake continues to be characterized as *mesoligotrophic* at both sites, based on water clarity (typical of *mesotrophic* lakes), total phosphorus readings (typical of *oligotrophic* lakes) and chlorophyll *a* readings (typical of *mesotrophic* lakes in the north basin and *oligotrophic* lakes in the south basin). The trophic state indices (TSI) evaluation suggests that phosphorus levels are lower than expected (given the algae and water clarity readings) in the lake. This suggests that small changes in phosphorus readings may trigger larger changes in algae levels or water clarity. Overall trophic conditions are summarized on the Lake Scorecards.

Lake productivity appears to be slightly higher in the north basin than in the south basin, based on typically higher chlorophyll *a* readings measured in the north basin, although the difference in the water quality conditions in these basins is not significant. Overall trophic conditions are summarized on the Lake Scorecard and Lake Condition Summary Table.

### **Evaluation of Potable Water Indicators**

Algae levels are usually not high enough to render the lake susceptible to taste and odor compounds or elevated DBP (disinfection by product) compounds that could affect the potability of the water. Hypolimnetic phosphorus and ammonia readings in Schroom Lake are usually similar to those measured at the lake surface, although deepwater phosphorus was higher in 2014, probably due to sampling results that were not representative of deepwater conditions in the lake.

Deepwater iron, manganese and arsenic levels appear to be low in the north basin, but higher iron readings were apparent at times in the south basin—none of these indicators have been measured thorough CSLAP in recent years. This suggests that deepwater intakes may support potable water use in the north basin, and would probably support this use in the south basin. Potable water conditions, at least as measurable through CSLAP, are summarized in the Lake Scorecard and Lake Condition Summary Table.

### **Evaluation of Limnological Indicators**

Conductivity readings were lower than normal in 2014. Color readings have been higher since 2002, but this is probably due to the laboratory change and has not resulted in any change in water clarity (and therefore may not be a “real” change). It is likely that most of the small changes in the other limnological indicators (NO<sub>x</sub>, NH<sub>4</sub>, TN, pH, and calcium) represent normal variability. Limnological conditions were mostly comparable in both basins. Overall limnological conditions are summarized in the Lake Scorecard and Lake Condition Summary Table.

### **Evaluation of Biological Condition**

Macrophyte communities in the lake have been evaluated by the Darrin Freshwater Institute. These plant surveys found a high plant diversity, with at least 20 plant species, including two protected plant species (*Myriophyllum alterniflorum*, alternate flower watermilfoil, and *Potamogeton alpinus*, northern pondweed) and one invasive exotic plant species (*Myriophyllum spicatum*, Eurasian watermilfoil). The modified floristic quality index (FQI) indicates the quality of the aquatic plant community is “excellent.”

The fish community in the lake is comprised of a mix of coldwater (at least two species), coolwater (at least five species) and warmwater (at least five species) fish. This indicates that the lake supports a two story fishery.

Zooplankton and macroinvertebrate surveys have not been conducted through CSLAP at Schroon Lake, although historical data from previous studies may be included in future generations of the CSLAP reports. The fluoroprobe screening samples analyzed by SUNY ESF in the last few years indicated low overall algae levels and low percentages of blue green algae. The algae community is comprised of a mix of green algae, diatoms, and other algae species. No shoreline blooms have been reported or sampled at either site, at least in recent years.

Biological conditions in the lake are summarized in the Lake Scorecard and Lake Condition Summary Table.

### **Evaluation of Lake Perception**

Recreational conditions in the north basin of Schroon Lake were slightly more favorable than normal, although recreational assessments are usually favorable. Water quality assessments were close to normal in 2014, consistent with water conditions that were also close to normal. It is not known if plant coverage in 2014 was higher or lower than normal.

Recreational and water quality assessments are fairly stable during the typical summer in both basins, and this was also apparent in 2014. Overall lake perception is summarized on the Lake Scorecard and Lake Condition Summary Table. Lake perception was comparable at both sampling sites.

### **Evaluation of Local Climate Change**

Water temperatures in the summer index period were slightly higher than normal, but temperature readings have not exhibited any long-term change. It is not likely that any of the small changes in water temperature readings are indicative of local climate change in the lake.

### **Evaluation of Algal Toxins**

Algal toxin levels can vary significantly within blooms and from shoreline to lake, and the absence of toxins in a sample does not indicate safe swimming conditions. Phycocyanin readings have been well below the levels indicating a susceptibility for harmful algal blooms (HABs) in the open water and within shoreline blooms in both basins. This is consistent with the fluoroprobe screening results from the last few years indicating low levels of blue green algae in nearly all samples. An analysis of algae samples indicate microcystin and anatoxin readings below the levels needed to support safe swimming and potable water use in both basins. Nearly all samples from the open water, including those from 2014, find undetectable toxin levels, and shoreline blue green algae blooms have not been reported.

## Lake Condition Summary-North Basin

Category	Indicator	Min	Overall Avg	Max	2014 Avg	Classification	2014 Change?	Long-term Change?
Eutrophication Indicators	Water Clarity	2.25	4.00	10.00	3.51	Mesotrophic	Within Normal Range	No Change
	Chlorophyll <i>a</i>	0.05	2.97	12.40	3.20	Mesotrophic	Within Normal Range	Decreasing Slightly
	Total Phosphorus	0.001	0.008	0.024	0.006	Oligotrophic	Within Normal Range	Increasing Slightly
Potable Water Indicators	Hypolimnetic Ammonia	0.01	0.03	0.11	0.03	Close to Surface NH4 Readings	Within Normal Range	Not known
	Hypolimnetic Arsenic	0.34	1.32	4.00		Elevated Deepwater As	Higher than Normal	Not known
	Hypolimnetic Iron	0.01	0.70	3.01		Elevated Deepwater Fe	Higher than Normal	Not known
	Hypolimnetic Manganese	0.01	0.11	0.28		Low Manganese Levels	Higher than Normal	Not known
Limnological Indicators	Hypolimnetic Phosphorus	0.000	0.020	0.374	0.097	Close to Surface TP Readings	Higher than Normal	Not known
	Nitrate + Nitrite	0.00	0.04	0.30	0.03	Low NOx	Within Normal Range	No Change
	Ammonia	0.00	0.03	0.20	0.02	Low Ammonia	Within Normal Range	No Change
	Total Nitrogen	0.07	0.31	1.34	0.30	Low Total Nitrogen	Within Normal Range	No Change
	pH	6.19	7.46	9.07	7.38	Circumneutral	Within Normal Range	No Change
	Specific Conductance	18	68	104	56	Softwater	Lower Than Normal	No Change
	True Color	3	19	52	18	Intermediate Color	Within Normal Range	Increasing Slightly
	Calcium	2.9	6.1	11.6	5.2	Not Susceptible to Zebra Mussels	Within Normal Range	No Change
Lake Perception	WQ Assessment	1	1.3	3	1.0	Crystal Clear	Within Normal Range	No Change
	Aquatic Plant Coverage	1	1.2	2	1.0	Plants Not Visible	Within Normal Range	No Change
	Recreational Assessment	1	1.7	5	1.0	Excellent	More Favorable Than Normal	No Change
Biological Condition	Phytoplankton					Open water-low blue green algae biomass	Not known	Not known
	Macrophytes					Excellent quality of aquatic plant community	Not known	Not known
	Zooplankton					Not evaluated through CSLAP	Not known	Not known
	Macroinvertebrates					Not evaluated through CSLAP	Not known	Not known
	Fish					Two story fishery	Not known	Not known
	Invasive Species					rudd, bluntnose minnow, chain pickerel, fallfish, gizzard shad, northern pike, rainbow smelt, smallmouth bass, Eurasian watermilfoil, curly-leaved pondweed	Not known	Not known
Local Climate Change	Air Temperature	10	22.2	38	23.6		Within Normal Range	No Change
	Water Temperature	11	21.6	33	23.0		Within Normal Range	No Change

Category	Indicator	Min	Overall Avg	Max	2013 Avg	Classification	2013 Change?	Long-term Change?
Harmful Algal Blooms	Open Water Phycocyanin	-1	9	61	4	No readings indicate high risk of BGA	Not known	Not known
	Open Water FP Chl.a	0	2	14	1	Few readings indicate high algae levels	Not known	Not known
	Open Water FP BG Chl.a	0	1	11	0	Few readings indicate high BGA levels	Not known	Not known
	Open Water Microcystis	<DL	0.2	0.5	<0.30	Mostly undetectable open water MC-LR	Not known	Not known
	Open Water Anatoxin a	<DL	<DL	<DL	<DL	Open water Anatoxin-a consistently not detectable	Not known	Not known
	Shoreline Phycocyanin					No shoreline blooms sampled for PC	Not known	Not known
	Shoreline FP Chl.a					No shoreline blooms sampled for FP	Not known	Not known
	Shoreline FP BG Chl.a					No shoreline blooms sampled for FP	Not known	Not known
	Shoreline Microcystis					No shoreline bloom MC-LR data	Not known	Not known
	Shoreline Anatoxin a	<DL	<DL	<DL	<DL	Shoreline bloom Anatoxin-a consistently not detectable	Not known	Not known



## Lake Condition Summary-South Basin

Category	Indicator	Min	87-13 Avg	Max	2013 Avg	Classification	2013 Change?	Long-term Change?
Eutrophication Indicators	Water Clarity	2.30	4.16	9.00	3.48	Mesotrophic	Within Normal Range	No Change
	Chlorophyll <i>a</i>	0.05	1.47	6.50	2.60	Oligotrophic	Higher than Normal	No Change
	Total Phosphorus	0.003	0.009	0.026	0.007	Oligotrophic	Within Normal Range	No Change
Potable Water Indicators	Hypolimnetic Ammonia	0.00	0.06	0.67	0.02	Close to Surface NH4 Readings	Lower Than Normal	Not known
	Hypolimnetic Arsenic	0.34	0.68	1.00		Low Deepwater Arsenic Levels	Higher than Normal	Not known
	Hypolimnetic Iron	0.01	1.17	5.32		Highly Elevated Deepwater Fe	Higher than Normal	Not known
	Hypolimnetic Manganese	0.01	0.13	0.68		Low Manganese Levels	Higher than Normal	Not known
Limnological Indicators	Hypolimnetic Phosphorus	0.002	0.010	0.059	0.006	Close to Surface TP Readings	Lower Than Normal	Not known
	Nitrate + Nitrite	0.00	0.04	0.17	0.01	Low NOx	Lower Than Normal	No Change
	Ammonia	0.00	0.03	0.14	0.01	Low Ammonia	Lower Than Normal	No Change
	Total Nitrogen	0.09	0.28	1.04	0.28	Low Total Nitrogen	Within Normal Range	Increasing Significantly
	pH	6.25	7.51	8.77	8.01	Alkaline	Higher than Normal	Increasing Significantly
	Specific Conductance	30	68	96	52	Softwater	Lower Than Normal	No Change
	True Color	6	21	50	24	Intermediate Color	Within Normal Range	No Change
	Calcium	4.2	6.0	8.4		Not Susceptible to Zebra Mussels		No Change
Lake Perception	WQ Assessment	1	1.5	3	2.0	Crystal Clear	Less Favorable than Normal	No Change
	Aquatic Plant Coverage	1	1.7	3	2.7	Subsurface Plant Growth	More Significant than Normal	Slightly Increasing
	Recreational Assessment	1	1.7	4	2.0	Excellent	Within Normal Range	No Change
Biological Condition	Phytoplankton					Open water-low blue green algae biomass	Not known	Not known
	Macrophytes					Excellent quality of aquatic plant community	Not known	Not known
	Zooplankton					Not evaluated through CSLAP	Not known	Not known
	Macroinvertebrates					Not evaluated through CSLAP	Not known	Not known
	Fish					Two story fishery	Not known	Not known
	Invasive Species					rudd, bluntnose minnow, chain pickerel, fallfish, gizzard shad, northern pike, rainbow smelt, smallmouth bass, Eurasian watermilfoil, curly-leafed pondweed	Not known	Not known
Local Climate Change	Air Temperature	6	21.2	37	24.5		Within Normal Range	No Change
	Water Temperature	12	20.5	29	19.7		Within Normal Range	No Change

Category	Indicator	Min	87-13 Avg	Max	2013 Avg	Classification	2013 Change?	Long-term Change?
Harmful Algal Blooms	Open Water Phycocyanin	0	12	57	4	No readings indicate high risk of BGA	Not known	Not known
	Open Water FP Chl.a	1	2	3	2	No readings indicate high algae levels	Not known	Not known
	Open Water FP BG Chl.a	0	1	2	0	No readings indicate high BGA levels	Not known	Not known
	Open Water Microcystis	<DL	0.1	0.0	<0.30	Mostly undetectable open water MC-LR	Not known	Not known
	Open Water Anatoxin a	<DL	<DL	<DL	<DL	Open water Anatoxin-a not detectable	Not known	Not known
	Shoreline Phycocyanin					No shoreline blooms sampled for PC	Not known	Not known
	Shoreline FP Chl.a					No shoreline blooms sampled for FP	Not known	Not known
	Shoreline FP BG Chl.a					No shoreline blooms sampled for FP	Not known	Not known
	Shoreline Microcystis					No shoreline bloom MC-LR data	Not known	Not known
	Shoreline Anatoxin a					No shoreline bloom anatoxin data	Not known	Not known

## Evaluation of Lake Condition Impacts to Lake Uses

The 2006 NYSDEC Priority Waterbody Listings (PWL) for the Upper Hudson River drainage basin indicated that *fish consumption is impaired* in Schroon Lake due to PCBs and mercury. The PWL listing for Schroon Lake is shown in Appendix B.

### Potable Water (Drinking Water)

The CSLAP dataset at Schroon Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, is inadequate to evaluate the use of the lake for potable water. The limited data related to algae levels indicate that the lake may presently support potable water usage, although deepwater intakes in both basins may be *threatened* by elevated iron levels.

### Contact Recreation (Swimming)

The CSLAP dataset at Schroon Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggests that swimming and contact recreation should be fully supported. Additional information about bacterial levels is needed to evaluate the safety of the water for swimming.

### Non-Contact Recreation (Boating and Fishing)

The CSLAP dataset on Schroon Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that non-contact recreation should be fully supported, although this use may ultimately be *threatened* by the presence of Eurasian watermilfoil and invasive plants.

### Aquatic Life

The CSLAP dataset on Schroon Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that aquatic life may be *threatened* by deepwater hypoxia in the south basin, and by the presence of exotic plants and fish. Additional data are needed to evaluate the food and habitat conditions for aquatic organisms in the lake.

**Aesthetics**

The CSLAP dataset on Schroon Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that aesthetics should be fully supported, although this use may be *threatened* by invasive species.

**Fish Consumption**

There are several fish consumption advisories for Schroon Lake—the NYS Department of Health recommends no more than one meal per month for lake trout greater than 27" in length, yellow perch greater than 13 inches in length, or smallmouth bass of any size.

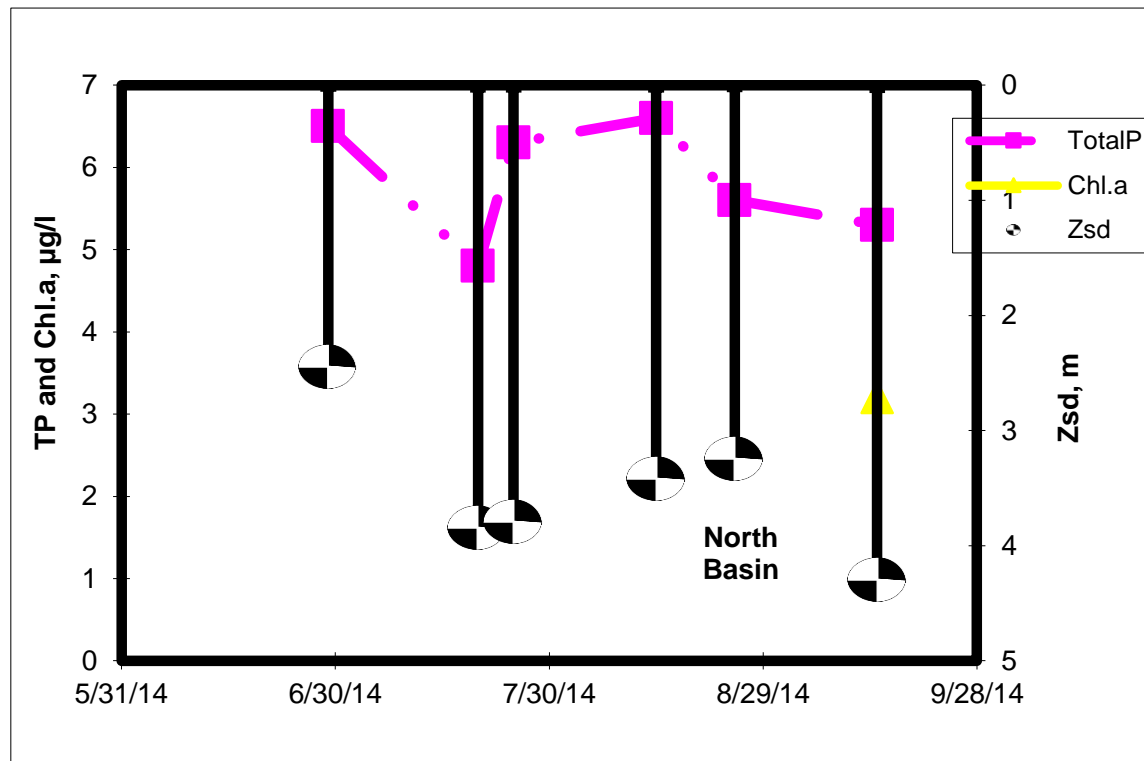
**Additional Comments and Recommendations**

Additional information might be needed to determine if the Eurasian watermilfoil populations in the lake have significantly affected the biological integrity of the lake. Lake residents should report and avoid exposure to any surface scums or heavily discolored water associated with shoreline blue green algae blooms.

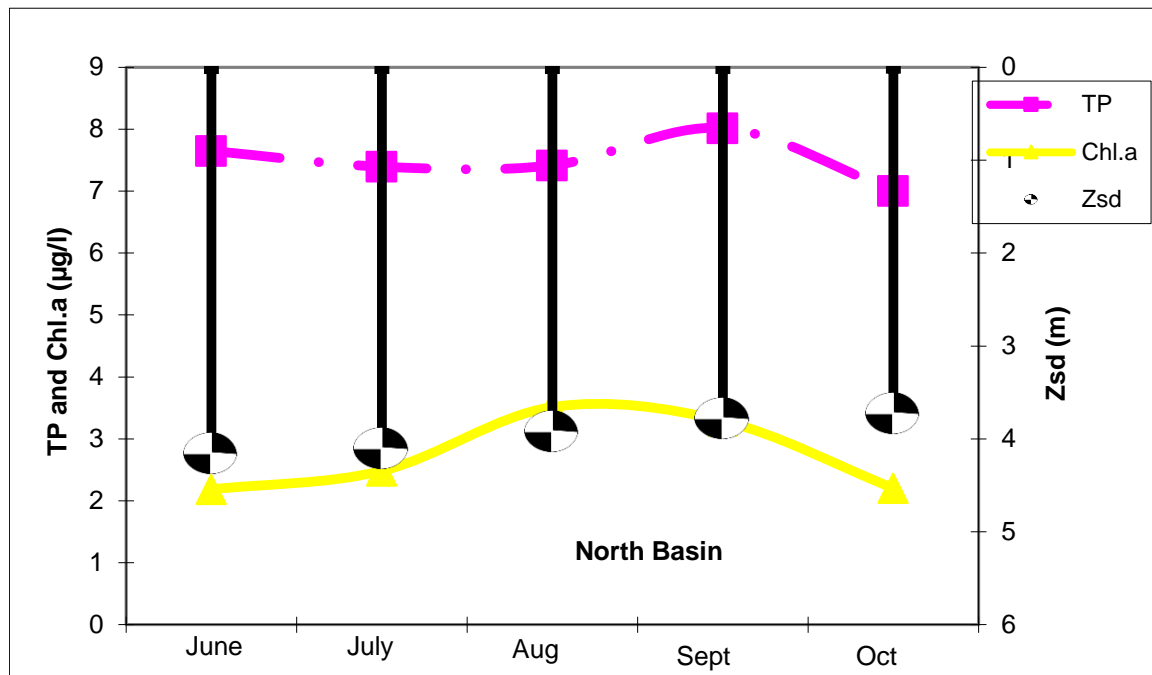
**Aquatic Plant IDs-2014**

None submitted for identification in 2014.

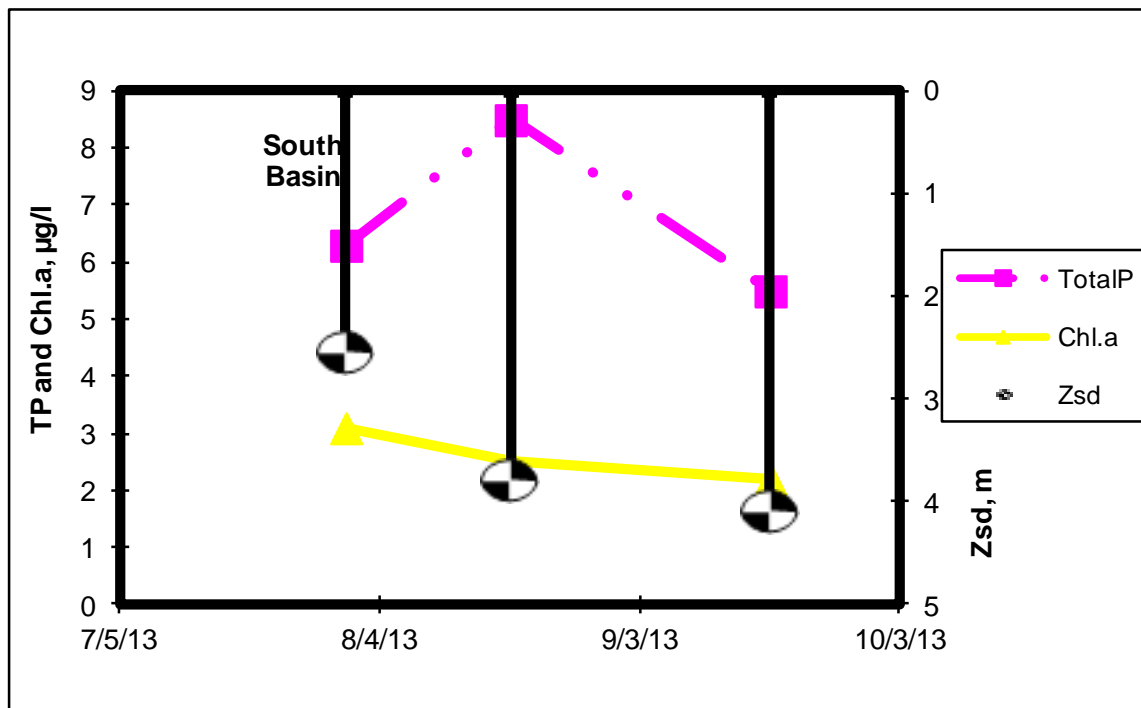
## Time Series: Trophic Indicators, 2014- North Basin



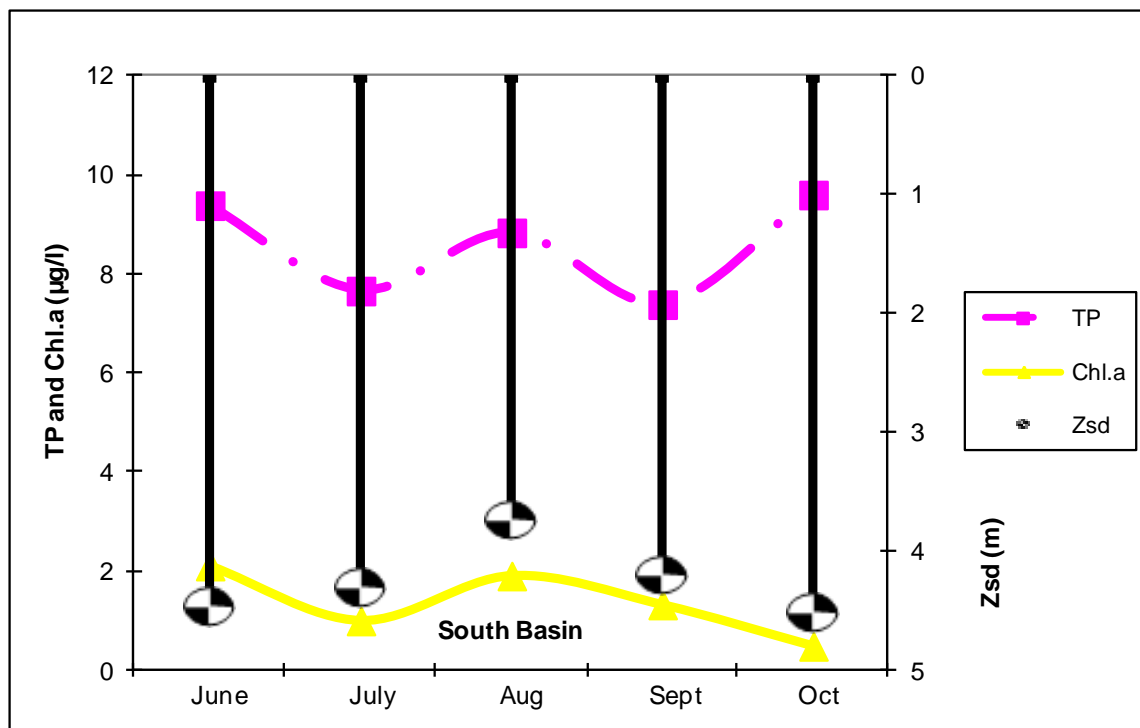
## Time Series: Trophic Indicators, Typical Year (1987-2014)-North Basin



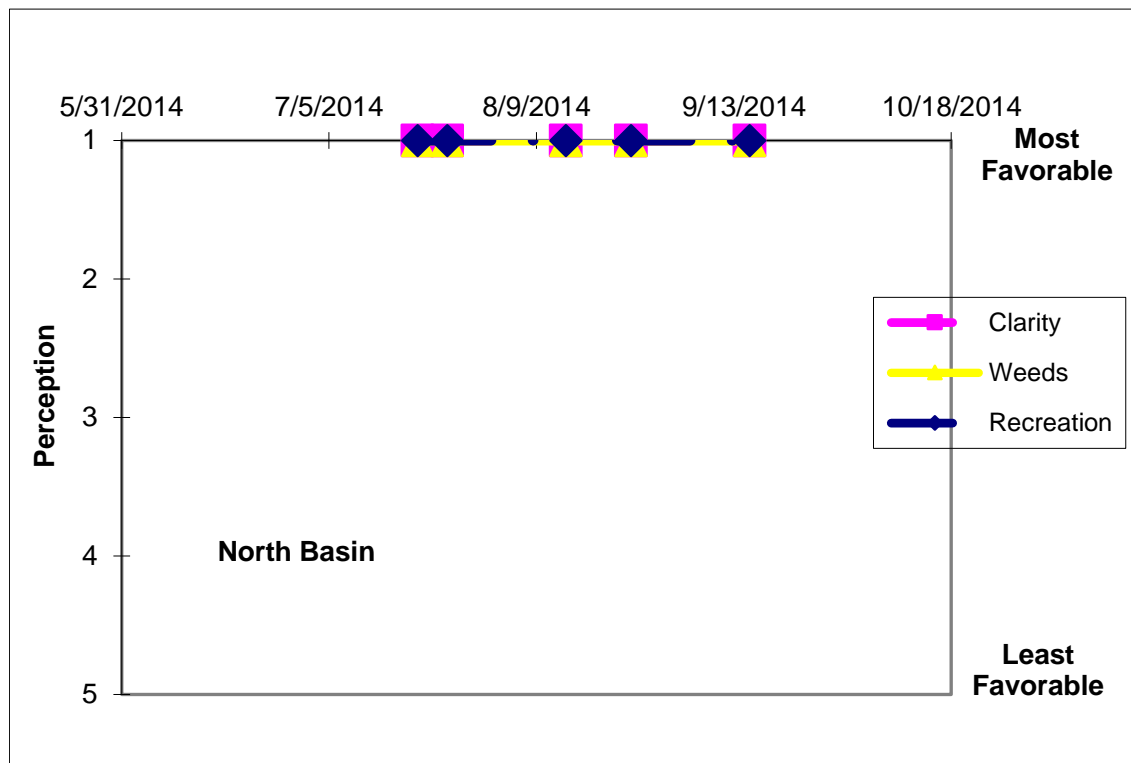
## Time Series: Trophic Indicators, 2013- South Basin



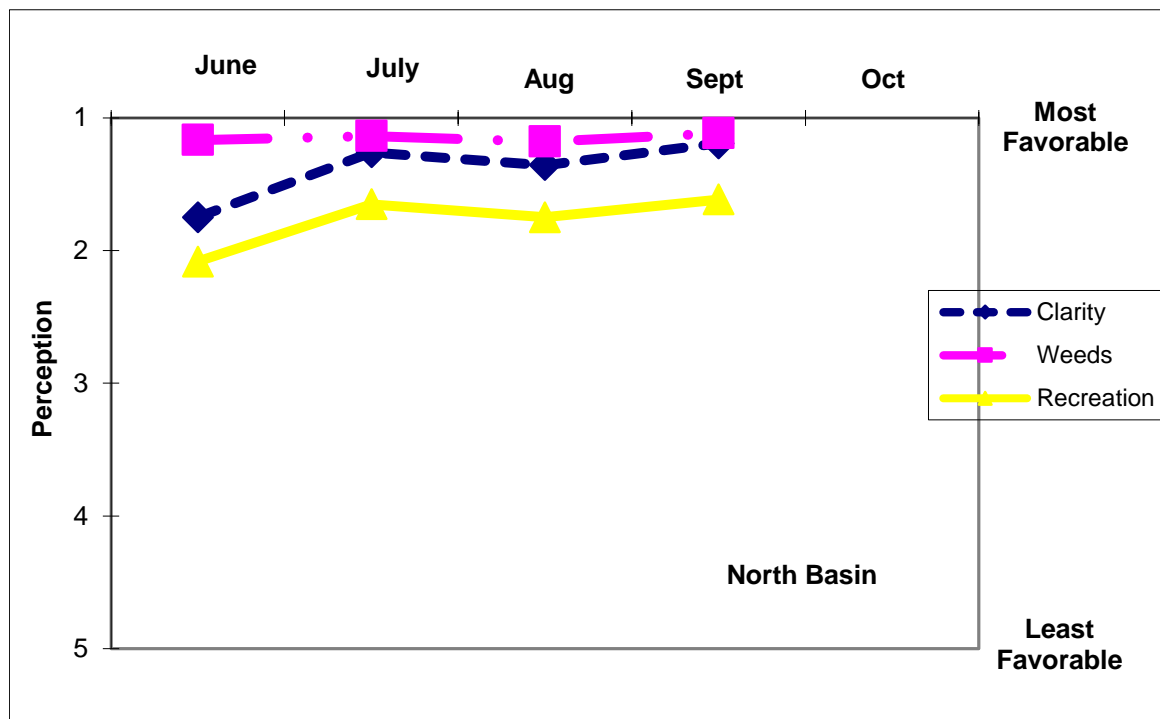
## Time Series: Trophic Indicators, Typical Year (1987-2013)- South Basin



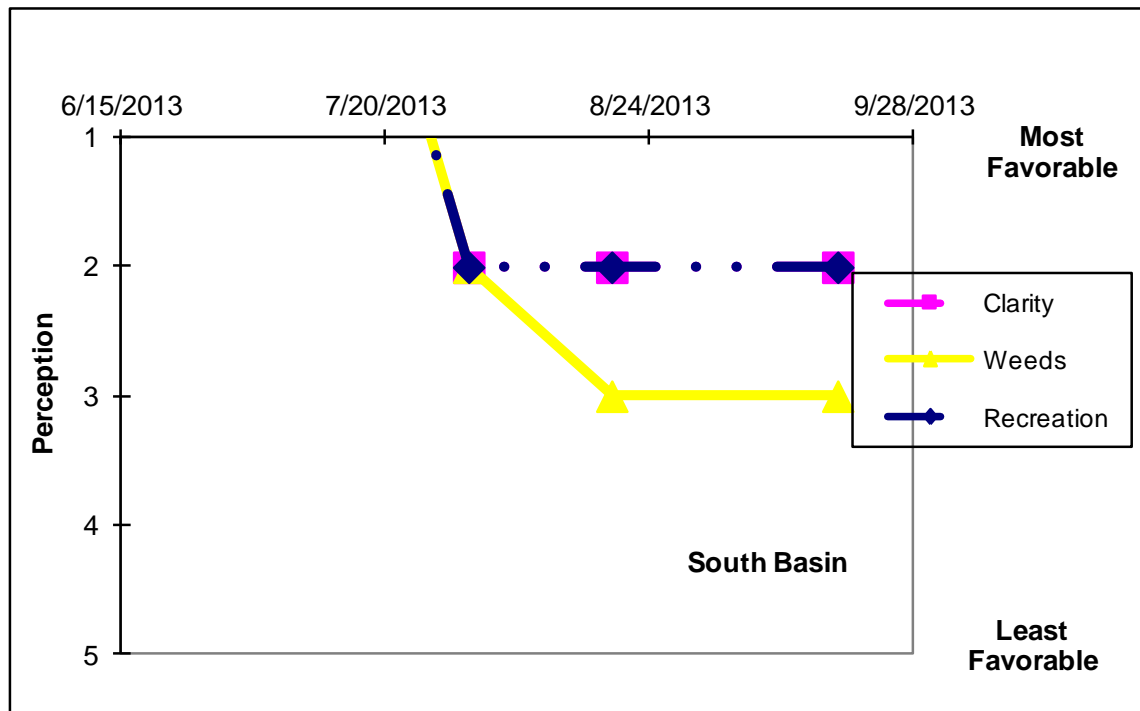
## Time Series: Lake Perception Indicators, 2014-North Basin



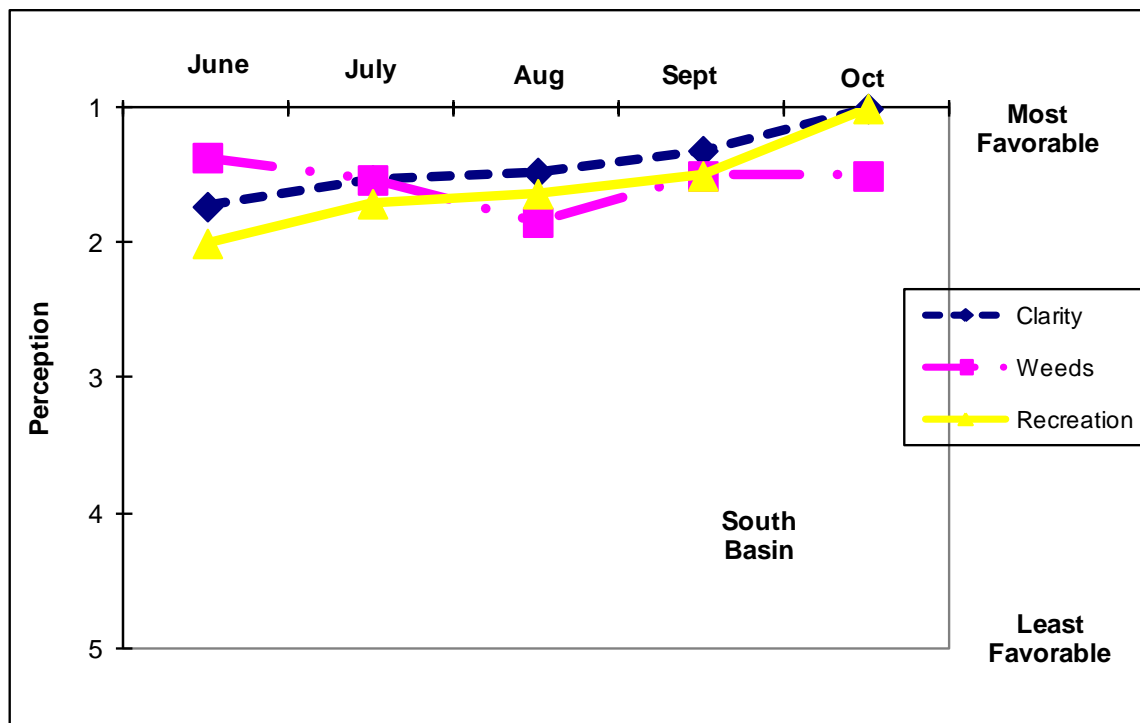
## Time Series: Lake Perception Indicators, Typical Year (1987-2014)-North Basin



## Time Series: Lake Perception Indicators, 2013-South Basin



## Time Series: Lake Perception Indicators, Typical Year (2003-2013)-South Basin



## Appendix A- CSLAP Water Quality Sampling Results for Schroon Lake

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a
34	Schroon L-N	6/23/1987	2.0		1.5	0.005	0.14				16	7.33	62		4.70
34	Schroon L-N	7/1/1987	20.0	3.00	1.5	0.006	0.15				16	7.58	60		5.80
34	Schroon L-N	7/8/1987	21.0	4.00	1.5	0.006	0.12				14	7.09	60		4.40
34	Schroon L-N	7/13/1987	21.0	3.00	1.5	0.005	0.10				16	6.91	61		4.00
34	Schroon L-N	7/21/1987	20.0	4.00	1.5	0.001	0.09				16	7.23	62		7.60
34	Schroon L-N	7/27/1987	20.0	4.00	1.5	0.009	0.06				15	7.51	62		5.60
34	Schroon L-N	8/4/1987	20.0	4.00	1.5	0.005	0.06				17	7.87	64		6.20
34	Schroon L-N	8/7/1987	45.0	4.15	1.5	0.009	0.03				11	7.02	63		8.70
34	Schroon L-N	8/14/1987	23.7	3.50	1.5	0.007	0.03				17	7.26	64		6.10
34	Schroon L-N	8/17/1987	23.0	3.35	1.5	0.005	0.02				12	7.63	64		4.70
34	Schroon L-N	8/24/1987	23.0	3.15	1.5	0.005	0.02				10	7.52	66		10.10
34	Schroon L-N	8/30/1987	25.0	4.25	1.5	0.005	0.02				9	7.36	62		
34	Schroon L-N	9/9/1987	24.0	3.83	1.5	0.006	0.08				8	7.48	71		9.70
34	Schroon L-N	9/14/1987	23.5	5.35	1.5	0.003	0.01				6	7.17	69		5.30
34	Schroon L-N	9/22/1987	23.0	5.10	1.5	0.007	0.03				11	7.34	68		3.50
34	Schroon L-N	7/6/1988	22.5	4.30	1.5	0.004	0.11				15	7.75	80		3.63
34	Schroon L-N	7/20/1988	25.0	5.25	1.5	0.004	0.08				6	7.93	76		2.15
34	Schroon L-N	8/4/1988	25.0	5.05	1.5	0.004	0.05				5	7.92	70		2.15
34	Schroon L-N	8/16/1988	25.0	4.50	1.5	0.001	0.02				7	7.69	65		2.96
34	Schroon L-N	8/31/1988	25.0	5.20	1.5	0.006	0.02				7	7.79	70		2.15
34	Schroon L-N	9/12/1988	25.0	5.45	1.5	0.005	0.02				7	7.72	72		3.77
34	Schroon L-N	9/26/1988	18.0	5.75	1.5	0.003	0.02				7	7.58	71		3.03
34	Schroon L-N	6/27/1989	23.0	4.90	1.5	0.006	0.08				15	7.68	64		2.64
34	Schroon L-N	7/5/1989	24.0	4.60	1.5	0.003	0.07				17	7.77	64		2.55
34	Schroon L-N	7/17/1989	20.0	4.25	1.5	0.008	0.06				17	7.42	64		2.11
34	Schroon L-N	7/31/1989	18.3	4.85	1.5	0.005	0.03				12	7.58	71		4.31
34	Schroon L-N	8/14/1989	24.4	3.65	1.5	0.003	0.01				13	7.41	69		4.23
34	Schroon L-N	8/29/1989	18.3	3.10	1.5	0.004	0.01				10	7.58	70		4.03
34	Schroon L-N	9/11/1989	25.0	3.55	1.5	0.007	0.01				9	7.44	71		3.70
34	Schroon L-N	9/25/1989	25.0	3.75	1.5	0.006	0.01				16	7.62	67		4.33
34	Schroon L-N	7/2/1990	24.0	4.20	1.5	0.009	0.10				15	7.37	62		4.12
34	Schroon L-N	7/19/1990	25.0	4.70	1.5	0.004	0.06				15	7.61	65		3.69
34	Schroon L-N	7/30/1990	25.0	5.10	1.5	0.004	0.06				14		70		0.69
34	Schroon L-N	8/15/1990	25.0	4.00	1.5	0.005	0.04				16	7.70	64		7.29
34	Schroon L-N	9/4/1990	25.0	5.60	1.5	0.003	0.04				18	7.01	64		2.56
34	Schroon L-N	9/17/1990	25.0	3.80	1.5	0.005	0.04				19	7.36	67		8.00
34	Schroon L-N	10/1/1990	25.0	4.95	1.5	0.005	0.08				18	6.73	66		2.81
34	Schroon L-N	7/9/1991	25.0	6.50	1.5	0.003	0.10				15	7.60	66		2.17
34	Schroon L-N	7/22/1991	25.0	5.72	1.5	0.005	0.07				10	7.04	88		1.89
34	Schroon L-N	8/6/1991	25.0	5.80	1.5	0.009	0.03				14	7.08	69		3.67
34	Schroon L-N	8/19/1991	20.0	4.30	1.5	0.005	0.01				9	7.65	69		4.42
34	Schroon L-N	9/3/1991	25.0	3.90	1.5	0.009	0.01				11	7.64	69		4.20
34	Schroon L-N	9/16/1991	25.0	3.70	1.5	0.010	0.01				9	7.60	69		3.11
34	Schroon L-N	7/20/1997		4.00	1.5	0.008	0.05				10	7.51	68		3.48
34	Schroon L-N	8/3/1997	9.3	5.05	1.5	0.004	0.02				9	7.53	69		3.03
34	Schroon L-N	9/8/1997		2.80	1.5	0.006	0.01				7	6.89	72		2.50
34	Schroon L-N	6/10/2002	43.6	3.05	1.0		0.10	0.02	1.01		14	7.25	73		0.95
34	Schroon L-N	6/25/2002	44.2	3.25	1.0	0.007	0.07	0.04	0.47	68.14	15	7.25	73		2.68
34	Schroon L-N	7/9/2002	44.3	4.10	1.0	0.007	0.06	0.07	0.32	45.20	15	7.27	77		
34	Schroon L-N	7/23/2002	43.6	3.30	2.0	0.005	0.04	0.07	0.34	64.37	19	7.29	81		3.37
34	Schroon L-N	8/6/2002	42.6	8.50	1.0	0.002	0.03	0.06	0.47	235.76	11	7.56	86		1.79
34	Schroon L-N	8/20/2002	44.2	3.30		0.006	0.02	0.05	0.47	77.36	15	7.64	87		2.37
34	Schroon L-N	9/3/2002	43.9	3.50		0.005	0.02	0.01	0.31	60.94	12	7.43	82		3.03
34	Schroon L-N	9/17/2002	42.6	4.50	1.0	0.005	0.00	0.01	0.31	60.13	16	7.64	86		3.47
34	Schroon L-N	6/24/2003	44.2	3.45	1.0		0.08	0.02	0.19		22	7.28	82	6.2	1.45
34	Schroon L-N	7/8/2003	42.7	4.15	1.0	0.006	0.06	0.03	0.21	36.65	12	7.34	84		1.15
34	Schroon L-N	7/22/2003	44.5	5.54		0.004	0.04	0.02	0.21	47.79	21	7.48	88		2.63
34	Schroon L-N	8/5/2003	43.0	2.75	1.0	0.007	0.00	0.03	0.24	32.27	17	7.25	84		4.61
34	Schroon L-N	8/19/2003	42.7	3.10		0.007	0.01	0.02	0.29	40.99	21	7.19	81	6.9	3.58
34	Schroon L-N	9/2/2003	43.9	3.40	1.0	0.007	0.00	0.02	0.25	37.09	17	7.08	84		0.87
34	Schroon L-N	9/17/2003	44.0	3.60	1	0.005	0.01	0.02	0.07	12.15	13	7.25	88		2.36
34	Schroon L-N	9/30/2003	45.1	3.88		0.004	0.00	0.01	0.28	75.66	12	7.22	81		0.46
34	Schroon L-N	6/11/2004		6.75		0.011	0.07	0.02	0.19	17.30	22	6.32	79		2.36



LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a
34	Schroon L-N	6/23/2004	44.2	10.00	1.0	0.003	0.05	0.02	0.31	108.66	19	6.29	81		3.92
34	Schroon L-N	7/7/2004	43.9	4.00	1.0	0.006	0.13	0.08	1.11	176.65	17	6.32	59		1.00
34	Schroon L-N	7/21/2004	44.5	4.38		0.004	0.02	0.02	1.34	311.07	14	7.40	83		0.60
34	Schroon L-N	8/4/2004	44.5	4.05	1.0	0.003	0.02	0.03	0.31	102.98	17	8.29	91	9.1	3.70
34	Schroon L-N	8/18/2004	43.3	3.85	1.0	0.003	0.01	0.01	0.39	155.96	12	7.17	74		3.90
34	Schroon L-N	9/1/2004	44.8	3.40	1.0	0.009	0.01	0.01	0.34	36.74		7.02	61		2.30
34	Schroon L-N	9/14/2004	43.3	4.10	1.0	0.009	0.02	0.03	0.38	41.12	22	7.48	51		2.10
34	Schroon L-N	6/21/2005	46.0	2.80	1.0	0.008	0.01	0.08	0.13	13.21	35	7.50	60	5.1	4.17
34	Schroon L-N	7/5/2005	44.8	2.25	1.0	0.009	0.03	0.03	0.30	32.46	33	8.20	88		1.49
34	Schroon L-N	7/19/2005	44.8	3.10	1.0	0.008	0.03	0.04	0.17	12.20	18	7.10	70		4.11
34	Schroon L-N	8/2/2005	44.0	2.85	1.0	0.011	0.03	0.01	0.35	9.63		7.02	83		5.51
34	Schroon L-N	8/16/2005	44.2	2.65	1.0	0.015			0.34	12.17	35	6.76	72	2.9	2.84
34	Schroon L-N	8/30/2005	44.0	3.90	1.0	0.013	0.03	0.01	0.23	6.12	25	6.94	81		2.62
34	Schroon L-N	9/13/2005	45.0	3.30	1.0	0.010	0.01	0.01	0.18	5.30	14	7.40	83		1.99
34	Schroon L-N	9/27/2005	45.1	4.45	1.0	0.018	0.02	0.20	0.27	15.22	3	7.25	104		1.67
34	Schroon L-N	6/16/2006	44.8	2.75	1.5	0.013	0.10	0.01	0.25	19.52	22	7.53	40	5.8	0.39
34	Schroon L-N	6/29/2006	44.2	2.60	1.0	0.014					21	6.96	62		2.65
34	Schroon L-N	7/27/2006	44.8	2.90	1.0	0.012	0.04	0.02	0.57	45.85	35	7.36	55		2.76
34	Schroon L-N	8/10/2006	44.2	2.70	1.0	0.012	0.03	0.04	0.67	55.69	26	7.53	48		3.41
34	Schroon L-N	8/24/2006	43.3	3.30	1.0	0.016	0.04	0.03	0.59	36.49	31	7.55	62	6.0	2.84
34	Schroon L-N	9/7/2006	44.2	3.70	1.0	0.009	0.03	0.02	0.41	47.64	10	8.25	59		2.51
34	Schroon L-N	9/20/2006	44.2	2.85	1.0	0.009	0.04	0.02	0.53	62.26	17	7.31	75		1.68
34	Schroon L-N	6/22/2008	33.0	4.00	1.5	0.008	0.04	0.02	0.15	41.95	20	7.38	53	4.0	0.10
34	Schroon L-N	7/5/2008	30.0	7.10	1.5	0.007	0.13	0.02	0.15	46.67		7.90	66		0.22
34	Schroon L-N	7/21/2008	31.0	5.35	1.5	0.008	0.03	0.01	0.23	62.66	13	7.95	53		0.10
34	Schroon L-N	8/1/2008	32.0	5.55	1.5	0.005	0.01	0.02	0.32	134.03	15	7.78	58		0.28
34	Schroon L-N	8/18/2008		4.35	1.5	0.008	0.00	0.01	0.17	49.10	20	8.10	56	5.9	0.80
34	Schroon L-N	8/29/2008	30.5	4.65	1.5	0.005	0.00	0.00	0.18	74.39	18	8.34	60		0.46
34	Schroon L-N	9/16/2008	33.5	4.95	1.5	0.007	0.03	0.00	0.17	51.68	26	7.91	66		0.46
34	Schroon L-N	9/25/2008	32.0	5.40	1.5	0.008	0.02	0.00	0.19	53.67	21	9.07	68		0.10
34	Schroon L-N	07/02/2009		2.75		0.008	0.06	0.02	0.13	35.25	35	6.19	49	6.1	0.10
34	Schroon L-N	07/20/2009		2.85		0.020	0.06	0.04	0.18	19.60	45	6.39	30		0.10
34	Schroon L-N	08/13/2009		2.90		0.008	0.06	0.02	0.16	46.86	52	7.23	58		0.10
34	Schroon L-N	08/22/2009		3.20		0.009	0.01	0.01	0.21	49.74	47	7.30	56		0.70
34	Schroon L-N	08/30/2009		3.05		0.006	0.01	0.01	0.14	49.05	38	7.40	26	5.1	6.90
34	Schroon L-N	09/03/2009		3.30		0.011	0.01	0.01	0.12	24.02	28	7.27	62		12.40
34	Schroon L-N	09/13/2009	44.5	3.50		0.024	0.01	0.01	0.14	12.64	40	7.58	35		
34	Schroon L-N	09/21/2009	50.3	3.90		0.013	0.02	0.02	0.32	53.74	34	7.38	44		0.30
34	Schroon L-N	5/25/2010	35.7	6.40	1.5	0.006	0.10	0.04			16	8.44	65	11.6	0.20
34	Schroon L-N	6/4/2010	37.4	5.38	1.5	0.008	0.07	0.03	0.19	54.13	10	7.61	70		0.20
34	Schroon L-N	7/13/2010	37.4	4.25	1.5	0.007	0.09	0.03	0.17	52.61	15	8.70	80		0.30
34	Schroon L-N	7/27/2010	36.6	5.40		0.019	0.04	0.04	0.23	26.72	11	8.66	55		0.40
34	Schroon L-N	8/17/2010	37.4	5.20	1.5	0.009	0.10	0.05	0.22	52.22	8	7.56	41	6.4	0.30
34	Schroon L-N	8/28/2010	42.0	4.00		0.009	0.01	0.02	0.28	68.22	6	6.93	89		3.50
34	Schroon L-N	10/7/2010		2.50	1.5	0.009	0.05	0.02	0.24	57.69	46	6.82	82		1.60
34	Schroon L-N	7/14/2011	40.0	3.23	1.0	0.008	0.07	0.02	0.26	69.26	31	7.29	84	6.2	0.05
34	Schroon L-N	7/23/2011		4.10	1.0	0.006	0.05	0.03	0.26	103.20	17	6.41	72		2.90
34	Schroon L-N	8/3/2011		3.55	1.0	0.006	0.03	0.05	0.27	98.10	30	8.42	90		0.05
34	Schroon L-N	8/17/2011		3.30	1.0	0.010	0.02	0.02	0.15	34.74	25	7.21	74		2.70
34	Schroon L-N	8/22/2011		3.10	1.5	0.018	0.01	0.05	0.26	32.18	24	8.59	75	6.1	3.80
34	Schroon L-N	9/7/2011		2.50		0.006	0.04	0.02	0.25	98.61	36	6.92	63		1.40
34	Schroon L-N	9/22/2011		2.65	1.5	0.014	0.30	0.10	0.90	139.96	32	7.20	53		3.80
34	Schroon L-N	9/28/2011		2.45	1.5	0.005	0.07	0.04	0.36	165.92	40	6.63	68		4.20
34	Schroon L-N	6/20/2012		3.85	1.5	0.010	0.03	0.01	0.35	75.18	22	6.83	72	5.9	
34	Schroon L-N	7/5/2012		2.90	1.5	0.006	0.04	0.01	0.13	49.59	20	8.01	78		
34	Schroon L-N	7/20/2012		4.30	1.5	0.016	0.05	0.03	0.29	39.46	19	8.65	78		
34	Schroon L-N	8/10/2012		3.65	1.5	0.006	0.02	0.02	0.16	55.71	15	6.62	76		
34	Schroon L-N	8/19/2012		3.60	1.5	0.010	0.01	0.02	0.17	36.31	16	8.38	77	6.7	
34	Schroon L-N	9/1/2012		3.55	1.5	0.011	0.01	0.02	0.24	49.19	13	8.79	90		
34	Schroon L-N	9/21/2012		3.55	1.5	0.009	0.01	0.02	0.21	53.69	18	7.35	79		
34	Schroon L-N	9/26/2012		3.40	1.5	0.006	0.01	0.02	0.21	78.75	11	7.46	54		
34	Schroon L-N	6/24/2013	42.0	3.00	1.5		0.05	0.01	0.39		32	7.18	59		
34	Schroon L-N	7/8/2013	41.0	2.50	1.5	0.014					31	8.45	86		
34	Schroon L-N	7/22/2013		2.55	1.5	0.011	0.02	0.03	0.18	37.42	30	7.45	62		
34	Schroon L-N	8/11/2013	43.0	4.65	1.5	0.011			0.44	87.84	30	7.95	60		
34	Schroon L-N	8/17/2013	38.0	3.13	1.5	0.016	0.01	0.01	0.35	48.58	28	7.28	71		

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a
34	Schroon L-N	9/4/2013		3.25	1.5	0.011			0.30	61.88	25	8.00	95		
34	Schroon L-N	9/11/2013			1.5	0.009	0.01	0.01	0.29	73.28	26	7.91	77		
34	Schroon L-N	9/19/2013		3.90	1.5	0.008			0.34	94.17	25	7.57	73		
34	Schroon L-N	6/29/2014	42.0	2.45	1.5	0.007	0.07	0.03	0.27	92.40	22	7.59	57	4.9	
34	Schroon L-N	7/20/2014	40.0	3.85	1.5	0.005			0.28	128.79	22	7.20	70		
34	Schroon L-N	7/25/2014	41.5	3.80	1.5	0.006	0.03	0.02	0.34	118.03	19	7.28	72		
34	Schroon L-N	8/14/2014	30.0	3.43	1.5	0.007			0.35	115.33	18	7.19	74		
34	Schroon L-N	8/25/2014	30.0	3.25	1.5	0.006	0.01	0.01	0.31	121.79	13	7.68	43	5.5	
34	Schroon L-N	9/14/2014	30.0	4.30	1.5	0.005			0.25	104.60	16	7.35	18		3.20
LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP		NO2	Fe	Mn	As
34	Schroon L-N	6/10/2002	43.6	3.05	30.5	0.005	0.14	0.04	0.51	94.25					
34	Schroon L-N	6/25/2002	44.2	3.25	30.5	0.007	0.14	0.09	0.53	74.39					
34	Schroon L-N	7/9/2002	44.3	4.10		0.006	0.15	0.07	0.41	65.68					
34	Schroon L-N	7/23/2002	43.6	3.30		0.000	0.16	0.05	0.54	6806.88					
34	Schroon L-N	8/6/2002	42.6	8.50	30.5	0.000	0.17	0.03	0.55	1377.45					
34	Schroon L-N	8/20/2002	44.2	3.30	30.5	0.006	0.21	0.05	0.66	114.58					
34	Schroon L-N	9/3/2002	43.9	3.50		0.004	0.16	0.01	0.42	97.76					
34	Schroon L-N	9/17/2002	42.6	4.50	30.5	0.004	0.23	0.01	0.48	114.01					
34	Schroon L-N	6/24/2003			30.5	0.004	0.20	0.03	0.25	58.33					
34	Schroon L-N	7/8/2003			30.5	0.005	0.24	0.06	0.45	95.49					
34	Schroon L-N	7/22/2003			30.5	0.005	0.19	0.03	0.03	4.93					
34	Schroon L-N	8/5/2003			43.0	0.004	0.10	0.01	0.28	73.96					
34	Schroon L-N	8/19/2003				0.006	0.19	0.03	0.34	60.18					
34	Schroon L-N	9/2/2003			30.5	0.004	0.17	0.01	0.63	143.61					
34	Schroon L-N	9/17/2003			30.5	0.003	0.24	0.02	0.25	91.30					
34	Schroon L-N	9/30/2003			30.5	0.002	0.21	0.01	0.41	194.89					
34	Schroon L-N	6/11/2004			44.2	0.005	0.20	0.05	0.15	27.26					
34	Schroon L-N	6/23/2004	44.2		30.5	0.004	0.18	0.02	0.09	22.04					
34	Schroon L-N	7/7/2004	43.9		30.5	0.005	0.23	0.02	0.98	207.35					
34	Schroon L-N	7/21/2004	44.5		30.5	0.005	0.28	0.11	0.72	154.26					
34	Schroon L-N	8/4/2004				0.005	0.20	0.01	0.35	76.63					
34	Schroon L-N	8/18/2004				0.003	0.18	0.01	0.42	132.85					
34	Schroon L-N	9/1/2004				0.005	0.19	0.01	0.26	57.51					
34	Schroon L-N	9/14/2004	43.3		30.5	0.006	0.03	0.04	0.33	59.04					
34	Schroon L-N	6/21/2005			30.5	0.010									
34	Schroon L-N	7/19/2005			25.0	0.014									
34	Schroon L-N	8/2/2005			25.0	0.036									
34	Schroon L-N	8/16/2005			25.0	0.028									
34	Schroon L-N	8/30/2005			25.0	0.038									
34	Schroon L-N	9/13/2005			25.0	0.034									
34	Schroon L-N	6/16/2006	44.8		30.5	0.007									
34	Schroon L-N	6/29/2006	44.2		30.5	0.011									
34	Schroon L-N	7/27/2006	44.8		30.5	0.010									
34	Schroon L-N	8/10/2006	44.2		30.5	0.013									
34	Schroon L-N	8/24/2006	43.3		30.5	0.005									
34	Schroon L-N	9/7/2006	44.2		30.5	0.004									
34	Schroon L-N	9/20/2006	44.2		30.5	0.008									
34	Schroon L-N	6/22/2008	33.0		33.0	0.059									
34	Schroon L-N	7/5/2008	30.0		30.0	0.005									
34	Schroon L-N	7/21/2008	31.0		30.5	0.005									
34	Schroon L-N	8/1/2008	32.0		30.5	0.003									
34	Schroon L-N	8/18/2008			31.0	0.005									
34	Schroon L-N	8/29/2008	30.5		30.5	0.004									
34	Schroon L-N	9/16/2008	33.5		30.5	0.002									
34	Schroon L-N	9/25/2008	32.0		30.0	0.005									
34	Schroon L-N	07/02/2009			40.0	0.010		0.05							
34	Schroon L-N	07/20/2009			45.0										
34	Schroon L-N	08/13/2009			39.0	0.005		0.02							
34	Schroon L-N	08/22/2009			43.0	0.007									
34	Schroon L-N	08/30/2009			46.0	0.008		0.01					0.10	0.10	1.70
34	Schroon L-N	09/03/2009			41.5	0.057									
34	Schroon L-N	09/13/2009	44.5		42.0	0.043		0.04					2.60	0.24	0.34
34	Schroon L-N	09/21/2009	50.3		43.0	0.031									
34	Schroon L-N	5/25/2010	35.7		35.0	0.008		0.04					0.03		
34	Schroon L-N	7/13/2010	37.4		35.0	0.014		0.04					0.03		
34	Schroon L-N	8/17/2010	37.4		35.0	0.021		0.03					0.03		

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP		NO2	Fe	Mn	As
34	Schroon L-N	8/28/2010	42.0		42.0										1.20
34	Schroon L-N	7/14/2011	40.0	3.23	39.0	0.007		0.02					0.21	0.01	
34	Schroon L-N	8/3/2011		3.55	42.0	0.013		0.01					0.15	0.01	
34	Schroon L-N	8/22/2011		3.10	43.5	0.006		0.03					0.26	0.04	0.50
34	Schroon L-N	9/22/2011		2.65	48.0	0.007		0.03					0.01	0.01	4.00
34	Schroon L-N	6/20/2012			46.0	0.009		0.01							
34	Schroon L-N	7/5/2012			50.0								0.60	0.02	
34	Schroon L-N	7/20/2012			42.0	0.025		0.03							
34	Schroon L-N	8/10/2012			42.0								0.93	0.13	
34	Schroon L-N	8/19/2012			42.0										
34	Schroon L-N	9/1/2012			46.0								3.01	0.28	0.50
34	Schroon L-N	9/21/2012			44.0	0.015		0.02							
34	Schroon L-N	9/26/2012			43.0								1.12	0.27	1.00
34	Schroon L-N	6/24/2013			42.0	0.016		0.02							
34	Schroon L-N	7/8/2013			41.0										
34	Schroon L-N	7/22/2013			46.0	0.035		0.02							
34	Schroon L-N	8/11/2013			43.0										
34	Schroon L-N	8/17/2013			3.8	0.074		0.02							
34	Schroon L-N	9/4/2013			45.0										
34	Schroon L-N	9/11/2013			42.0	0.053		0.01							
34	Schroon L-N	9/19/2013			44.0										
34	Schroon L-N	6/29/2014			42.0	0.007		0.05							
34	Schroon L-N	7/20/2014			40.0	0.007									
34	Schroon L-N	7/25/2014			41.5	0.005		0.02							
34	Schroon L-N	8/14/2014			30.0	0.374									
34	Schroon L-N	8/25/2014			30.0	0.007		0.02							
34	Schroon L-N	9/14/2014			30.0	0.182									

Num	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a
34.1	Schroon L-S	6/24/2003	35.7	3.95	1.0	0.004	0.15	0.02	0.17	41.00	16	7.31	72	8.4	0.49
34.1	Schroon L-S	7/8/2003	36.6	4.85	1.0	0.004	0.07	0.01	0.32	78.09	11	7.38	74		1.16
34.1	Schroon L-S	7/22/2003	34.0	6.14		0.004	0.05	0.03	0.28	73.80	15	7.44	77		2.05
34.1	Schroon L-S	8/5/2003	34.0	3.95	1.0	0.004	0.00	0.02	0.28	64.14	17	7.15	78		3.15
34.1	Schroon L-S	8/19/2003	36.6	3.30	1.0	0.004	0.00	0.01	0.23	62.40	11	7.23	79	6.7	2.83
34.1	Schroon L-S	9/2/2003	32.6	4.60	1.0	0.004	0.00	0.01	0.16	40.20	17	7.24	81		1.96
34.1	Schroon L-S	9/17/2003	35.0	4.95	1.0	0.004	0.00	0.01	0.11	27.86	13	7.04	85		2.21
34.1	Schroon L-S	9/30/2003	35.0	2.83	1.5	0.006	0.02	0.01	0.29	47.41	17	6.97	86		2.22
34.1	Schroon L-S	6/11/2004		5.00		0.006	0.09	0.02	0.38	62.83	22	6.26	73		1.22
34.1	Schroon L-S	6/23/2004	34.7	9.00	1.0	0.004	0.05	0.01	0.29	80.38	16	6.25	72		2.09
34.1	Schroon L-S	7/7/2004	34.4	4.50	1.0	0.003	0.09	0.03	1.04	301.24	16	6.76	74		0.50
34.1	Schroon L-S	7/21/2004	34.5	4.00		0.005	0.05	0.07	0.36	77.23	13	7.54	76		0.40
34.1	Schroon L-S	8/4/2004	35.1	3.70	1.0	0.005	0.02	0.02	0.23	45.52	17	7.77	85		3.30
34.1	Schroon L-S	8/18/2004	36.0	2.90	1.0	0.003	0.02	0.01	0.35	138.23	14	7.20	63		2.70
34.1	Schroon L-S	9/1/2004	36.0	4.10	1.0	0.003	0.03	0.01	0.38	124.89		7.02	61		2.60
34.1	Schroon L-S	9/14/2004	36.0	5.00	1.0	0.006	0.03	0.03	0.34	61.04	18	6.64	64		1.20
34.1	Schroon L-S	6/21/2005	36.0	3.00	1.0	0.006	0.01	0.08	0.33	53.51	28	8.00	65	5.9	2.30
34.1	Schroon L-S	7/5/2005	25.0	2.80	1.0	0.005	0.02	0.06	0.25	45.84	23	7.80	64		1.23
34.1	Schroon L-S	7/19/2005	34.1	3.40	1.0	0.014	0.01	0.05	0.17	12.12	15	7.29	72		2.80
34.1	Schroon L-S	8/2/2005	34.0	3.15	1.0	0.014	0.04	0.02	0.31	21.91	39	7.02	76		4.85
34.1	Schroon L-S	8/16/2005	35.0	3.10	1.0	0.019	0.03	0.02	0.29	15.81	40	6.83	72	6.3	2.12
34.1	Schroon L-S	8/30/2005	34.0	4.48	1.0	0.021	0.01	0.01	0.19	8.92	20	7.31	90		2.52
34.1	Schroon L-S	9/13/2005	33.0	3.25	1.0	0.019	0.01	0.01	0.17	8.83	14	7.30	73		2.18
34.1	Schroon L-S	9/27/2005	34.1	4.10	1.0	0.010	0.02	0.03	0.15	15.33	16	7.06	82		1.17
34.1	Schroon L-S	6/16/2006	34.8	3.45	1.0	0.011	0.10	0.01	0.27	24.29	13	7.27	48	5.0	2.09
34.1	Schroon L-S	6/28/2006	36.0	3.25	1.0	0.010	0.08	0.03	0.41	41.11	18	7.75	60		2.79
34.1	Schroon L-S	7/27/2006	34.1	3.09	1.0	0.011	0.03	0.02	0.50	46.49	37	8.40	37		3.65
34.1	Schroon L-S	8/10/2006	35.1	3.00	1.0	0.011	0.04	0.02	0.62	59.20	28	7.81	66		3.91
34.1	Schroon L-S	8/24/2006	36.0	3.15	1.0	0.009	0.05	0.03	0.66	77.15	17	7.55	74	5.7	0.41
34.1	Schroon L-S	9/7/2006	36.0	3.15	1.0	0.005	0.03	0.03	0.51	103.52	11	7.60	60		2.67
34.1	Schroon L-S	9/20/2006	36.0	3.00	1.0	0.010	0.04	0.09	0.46	45.87	13	7.86	73		1.56
34.1	Schroon L-S	6/22/2008	33.0	3.90	1.5	0.026	0.04	0.01	0.25	21.11	21	6.98	58	6.0	0.71
34.1	Schroon L-S	7/23/2008	43.0	4.45	1.5	0.004					15	8.24	58		0.10
34.1	Schroon L-S	8/18/2008	33.0	2.30	1.5	0.005	0.01	0.00	0.27	114.69		7.76	61		0.10
34.1	Schroon L-S	8/27/2008	33.0	2.85		0.007	0.01	0.00	0.17	56.77	26	7.88	66		0.10
34.1	Schroon L-S	9/15/2008				0.004	0.02	0.02	0.20	110.27	19	7.65	69	4.3	0.10

Num	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a
34.1	Schroon L-S	9/20/2008	33.0	4.40		0.006	0.02	0.01	0.20	77.22	20	7.52	65		0.10
34.1	Schroon L-S	9/23/2008	44.0	4.23		0.005	0.03	0.01	0.19	86.66	19	7.74	77		0.64
34.1	Schroon L-S	10/7/2008		5.30	1.5	0.004	0.03	0.01	0.17	95.26	17	8.30	79		0.10
34.1	Schroon L-S	06/30/2009	25.0	4.55		0.009	0.04	0.01	0.09	22.00	36	7.23	60	5.4	0.29
34.1	Schroon L-S	07/10/2009	37.0	3.36	1.5	0.012	0.03	0.01	0.22	41.04	50	7.95	53		0.48
34.1	Schroon L-S	07/19/2009	35.7	4.40	1.5	0.009	0.04	0.03	0.12	30.00	32	7.56	50		0.33
34.1	Schroon L-S	08/04/2009	35.7	4.30	1.5	0.007	0.02	0.02	0.12	40.00	30	7.44	58		0.32
34.1	Schroon L-S	08/21/2009	35.7	3.75	1.5	0.005	0.01	0.01	0.13	59.13	31	7.91	54	5.8	0.60
34.1	Schroon L-S	09/01/2009	35.7	3.85	1.5	0.005	0.02	0.03	0.13	53.78	27	8.15	49		0.50
34.1	Schroon L-S	09/17/2009	35.7	5.93	1.5	0.006	0.01	0.01	0.11	38.06	20	7.44	58		0.10
34.1	Schroon L-S	10/02/2009	35.7	3.95		0.005	0.04	0.02	0.13	54.59	24	7.62	64		0.40
34.1	Schroon L-S	6/13/2010	45.0	4.10		0.010	0.07	0.01	0.30	64.50	13	7.66	74	8.0	2.80
34.1	Schroon L-S	6/27/2010	46.0	4.08		0.011	0.05	0.03	0.47	93.80	19	7.09	50		1.80
34.1	Schroon L-S	7/8/2010	47.0	4.10		0.007	0.02	0.02	0.61	189.94	28	7.63	83		0.10
34.1	Schroon L-S	7/31/2010	42.0	3.85		0.006	0.02	0.02	0.13	49.22	26	7.65	78		0.10
34.1	Schroon L-S	8/12/2010	48.0	4.45		0.009	0.02	0.04	0.35	88.50	16	7.29	85		2.10
34.1	Schroon L-S	8/24/2010	44.0	4.95		0.017	0.05	0.05	0.40	50.61	20	7.00	62	6.1	3.30
34.1	Schroon L-S	9/7/2010		5.25	1.5	0.025	0.01	0.02	0.18	16.08	13	7.80	83		0.50
34.1	Schroon L-S	10/10/2010		5.75	1.5	0.020	0.05	0.05	0.33	36.02	12	7.32	83		1.00
34.1	Schroon L-S	7/10/2011		6.15	1.5	0.018	0.17	0.04	0.27	32.82	27	8.50	93	4.2	0.10
34.1	Schroon L-S	7/19/2011		5.20	1.5	0.011	0.08	0.04	0.29	58.27	32	7.13	57		0.20
34.1	Schroon L-S	7/31/2011		5.15	1.5	0.011	0.08	0.04	0.15	31.75	23	8.22	60		0.40
34.1	Schroon L-S	8/19/2011		4.30	1.5	0.009	0.02	0.02	0.23	58.00	20	7.78	70		0.60
34.1	Schroon L-S	8/31/2011		3.65	1.5	0.010	0.06	0.04	0.29	61.56		7.36	65	5.5	0.05
34.1	Schroon L-S	9/18/2011		3.90	1.5	0.013	0.10	0.03	0.28	45.83	30	7.13	57		0.10
34.1	Schroon L-S	10/9/2011		3.10	1.5	0.009	0.07	0.03	0.31	78.53	28	7.52	41		0.40
34.1	Schroon L-S	6/28/2012	30.5	4.95	1.5	0.006	0.07	0.03	0.15	59.60	17	7.83	35	5.8	6.50
34.1	Schroon L-S	7/22/2012	30.0	5.40	1.5		0.01	0.02	0.21	8.78	19	7.67	41		0.10
34.1	Schroon L-S	8/12/2012	30.0	5.20	1.5	0.006	0.02	0.03	0.24	86.92	10	8.77	91		0.30
34.1	Schroon L-S	8/26/2012	30.0	4.68	1.5	0.005	0.01	0.02	0.19	81.96	6	8.75	96		2.20
34.1	Schroon L-S	9/4/2012	30.0	4.08	1.5		0.01	0.14	0.20	14.09	10	6.75	73	6.7	2.10
34.1	Schroon L-S	9/16/2012	30.0	5.08	1.5	0.004	0.01	0.03	0.26	145.20	13	7.25	75		0.80
34.1	Schroon L-S	7/21/2013													
34.1	Schroon L-S	7/31/2013	33.0	2.55	1.5	0.006	0.01	0.02	0.13	44.00	26	8.32	61		3.10
34.1	Schroon L-S	8/19/2013	33.0	3.80	1.5	0.009			0.38	97.99	26	7.75	66		2.50
34.1	Schroon L-S	9/18/2013	33.0	4.10	1.5	0.006	0.01	0.01	0.34	137.94	20	7.96	30		2.20
34.1	Schroon L-S	6/24/2003			30.5	0.004	0.16	0.02	0.15	36.88					
34.1	Schroon L-S	7/8/2003			30.5	0.004	0.17	0.02	0.36	96.23					
34.1	Schroon L-S	7/22/2003			30.5	0.003	0.17	0.01	0.27	80.33					
34.1	Schroon L-S	8/5/2003			34.0	0.004	0.10	0.01	0.28	73.96					
34.1	Schroon L-S	8/19/2003			30.5	0.004	0.03	0.01	0.26	72.43					
34.1	Schroon L-S	9/2/2003			30.5	0.007	0.18	0.00	0.45	63.58					
34.1	Schroon L-S	9/17/2003			30.5	0.004	0.05	0.01	0.14	32.65					
34.1	Schroon L-S	9/30/2003			30.5	0.004	0.24	0.01	0.42	95.82					
34.1	Schroon L-S	6/11/2004			34.4	0.007	0.17	0.02	0.43	64.33					
34.1	Schroon L-S	6/23/2004	34.7		30.5	0.003	0.14	0.02	0.24	95.72					
34.1	Schroon L-S	7/7/2004	34.4		30.5	0.004	0.25	0.03	1.04	291.49					
34.1	Schroon L-S	7/21/2004	34.5		30.5	0.003	0.14	0.03	0.25	75.72					
34.1	Schroon L-S	8/4/2004	35.1		30.5	0.005	0.18	0.02	0.41	87.92					
34.1	Schroon L-S	8/18/2004	36.0		30.5	0.002	0.15	0.01	0.25	108.94					
34.1	Schroon L-S	9/1/2004	36.0		30.5	0.004	0.15	0.01	0.27	69.27					
34.1	Schroon L-S	9/14/2004	36.0		30.5	0.004			0.45	108.66					
34.1	Schroon L-S	6/21/2005			30.5	0.007									
34.1	Schroon L-S	7/19/2005			25.0	0.004									
34.1	Schroon L-S	8/2/2005			25.0	0.013									
34.1	Schroon L-S	8/16/2005			25.0	0.011									
34.1	Schroon L-S	8/30/2005			25.0	0.013									
34.1	Schroon L-S	9/13/2005			25.0	0.006									
34.1	Schroon L-S	9/27/2005			25.0	0.012									
34.1	Schroon L-S	6/16/2006	34.8		30.5	0.006									
34.1	Schroon L-S	6/28/2006	36.0		30.5	0.007									
34.1	Schroon L-S	8/10/2006	35.1		30.5	0.003									
34.1	Schroon L-S	8/24/2006	36.0		30.5	0.010									
34.1	Schroon L-S	9/7/2006	36.0		30.5	0.004									
34.1	Schroon L-S	9/20/2006	36.0		30.5	0.009									
34.1	Schroon L-S	6/22/2008	33.0		33.0	0.006									

Num	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a
34.1	Schroon L-S	7/23/2008	43.0		30.5	0.004									
34.1	Schroon L-S	8/18/2008	33.0		33.0	2.650									
34.1	Schroon L-S	8/27/2008	33.0			1.389									
34.1	Schroon L-S	9/15/2008				1.401									
34.1	Schroon L-S	9/20/2008	33.0			0.005									
34.1	Schroon L-S	9/23/2008	44.0		33.0	0.004									
34.1	Schroon L-S	10/7/2008			30.5	0.004									
34.1	Schroon L-S	06/30/2009	25.0		34.7	0.009		0.01							
34.1	Schroon L-S	07/10/2009	37.0		36.5	0.005									
34.1	Schroon L-S	07/19/2009	35.7		35.0	0.007		0.01							
34.1	Schroon L-S	08/04/2009	35.7		35.0	0.006									
34.1	Schroon L-S	08/21/2009	35.7		35.0	0.006		0.01					0.10	0.10	0.90
34.1	Schroon L-S	09/01/2009	35.7		35.0	0.005									
34.1	Schroon L-S	09/17/2009	35.7		35.0	0.007		0.01					0.10	0.10	0.34
34.1	Schroon L-S	10/02/2009	35.7			0.008									
34.1	Schroon L-S	6/13/2010	45.0		45.0	0.054		0.02					2.70	0.20	
34.1	Schroon L-S	7/8/2010	47.0		47.0	0.059		0.05					4.80	0.27	
34.1	Schroon L-S	7/31/2010	42.0		42.0	0.037		0.05					1.85	0.21	
34.1	Schroon L-S	8/24/2010	44.0			0.020		0.67					5.32	0.68	
34.1	Schroon L-S	10/10/2010			36.0	0.035		0.03							
34.1	Schroon L-S	7/10/2011		6.15	33.0	0.018		0.05					0.01	0.01	
34.1	Schroon L-S	7/31/2011		5.15	36.0	0.007		0.05					0.01	0.01	
34.1	Schroon L-S	8/31/2011		3.65	36.0	0.012		0.03					0.01	0.01	0.50
34.1	Schroon L-S	10/9/2011		3.10	36.0	0.007		0.02					0.01	0.01	
34.1	Schroon L-S	6/28/2012			27.5	0.029		0.03							
34.1	Schroon L-S	7/22/2012			25.0								0.06	0.02	
34.1	Schroon L-S	8/12/2012			27.5	0.006		0.35							
34.1	Schroon L-S	8/26/2012			27.5								0.08	0.02	
34.1	Schroon L-S	9/4/2012			27.5	0.006		0.20							
34.1	Schroon L-S	9/16/2012			27.5								0.23	0.06	1.00
34.1	Schroon L-S	7/31/2013			27.5	0.008		0.02							
34.1	Schroon L-S	8/19/2013			27.5										
34.1	Schroon L-S	9/18/2013			27.5	0.005		0.02							

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QFQG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HAB form	Shore HAB
34	Schroon L-N	6/23/1987	epi	25	20														
34	Schroon L-N	7/1/1987	epi	18	20														
34	Schroon L-N	7/8/1987	epi	20	20														
34	Schroon L-N	7/13/1987	epi	24	25														
34	Schroon L-N	7/21/1987	epi	20	22														
34	Schroon L-N	7/27/1987	epi	23	23														
34	Schroon L-N	8/4/1987	epi	25	22														
34	Schroon L-N	8/7/1987	epi	24	22														
34	Schroon L-N	8/14/1987	epi	25	23														
34	Schroon L-N	8/17/1987	epi	25	23														
34	Schroon L-N	8/24/1987	epi	19	20														
34	Schroon L-N	8/30/1987	epi	20	19														
34	Schroon L-N	9/9/1987	epi	20	19														
34	Schroon L-N	9/14/1987	epi	17	18														
34	Schroon L-N	9/22/1987	epi	18	15														
34	Schroon L-N	7/6/1988	epi	27	26														
34	Schroon L-N	7/20/1988	epi	24	26														
34	Schroon L-N	8/4/1988	epi	28	27														
34	Schroon L-N	8/16/1988	epi	21	25														
34	Schroon L-N	8/31/1988	epi	23	20														
34	Schroon L-N	9/12/1988	epi	16	19														
34	Schroon L-N	9/26/1988	epi	16	16														
34	Schroon L-N	6/27/1989	epi	22	22														
34	Schroon L-N	7/5/1989	epi	20	20														
34	Schroon L-N	7/17/1989	epi	22	20														
34	Schroon L-N	7/31/1989	epi	24	22														
34	Schroon L-N	8/14/1989	epi	23	23														
34	Schroon L-N	8/29/1989	epi	22	20														
34	Schroon L-N	9/11/1989	epi	20	20														
34	Schroon L-N	9/25/1989	epi	10	15														
34	Schroon L-N	7/2/1990	epi	28	24														
34	Schroon L-N	7/19/1990	epi	24	22														
34	Schroon L-N	7/30/1990	epi	26	28														
34	Schroon L-N	8/15/1990	epi	22	23														
34	Schroon L-N	9/4/1990	epi	22	22														
34	Schroon L-N	9/17/1990	epi	10	17														
34	Schroon L-N	10/1/1990	epi	17	14														
34	Schroon L-N	7/9/1991	epi	21	23														
34	Schroon L-N	7/22/1991	epi	24	28														
34	Schroon L-N	8/6/1991	epi	18	23														
34	Schroon L-N	8/19/1991	epi	20	23														
34	Schroon L-N	9/3/1991	epi	20	21														
34	Schroon L-N	9/16/1991	epi	27	27														
34	Schroon L-N	7/20/1997	epi	24	23	1	2	1											
34	Schroon L-N	8/3/1997	epi	31	25	1	1	1											
34	Schroon L-N	9/8/1997	epi		20	2	2	1											
34	Schroon L-N	6/10/2002	epi	22	21	1	2	1	5										
34	Schroon L-N	6/25/2002	epi	28	24	2	2	2											
34	Schroon L-N	7/9/2002	epi	25	23	1	1	2	5										
34	Schroon L-N	7/23/2002	epi	25	24	1	1	2	5										
34	Schroon L-N	8/6/2002	epi	18	24	1	1	4	5										
34	Schroon L-N	8/20/2002	epi	26	26	2	2	1											
34	Schroon L-N	9/3/2002	epi	27	23.5	2	1	2	5										
34	Schroon L-N	9/17/2002	epi	25	21	1	1	1											
34	Schroon L-N	6/24/2003	epi	35	23	2	1	1	8										
34	Schroon L-N	7/8/2003	epi	26	26	1	1	1											
34	Schroon L-N	7/22/2003	epi	23	23	1	1	1	8										
34	Schroon L-N	8/5/2003	epi	25	26	2	1	2	5										
34	Schroon L-N	8/19/2003	epi	22	24	1	1	1											
34	Schroon L-N	9/2/2003	epi	21		2	1	5	58										
34	Schroon L-N	9/17/2003	epi	23	21	1	1	1											

LNum	PName	Date	Site	TAir	TH2O	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HAB form	Shore HAB
34	Schroon L-N	9/30/2003	epi	23		1	1	1	5											
34	Schroon L-N	6/11/2004	epi	20	20	3	1	3	8											
34	Schroon L-N	6/23/2004	epi	25	21	2	1	1	0											
34	Schroon L-N	7/7/2004	epi	21	21	2	1	2	5											
34	Schroon L-N	7/21/2004	epi	27	23	1	1	2	5											
34	Schroon L-N	8/4/2004	epi	19	23	2	1	3	5											
34	Schroon L-N	8/18/2004	epi	21	20	2	1	4	5											
34	Schroon L-N	9/1/2004	epi	20	20	1	1	3	5											
34	Schroon L-N	9/14/2004	epi	18	18	2	1	2	0											
34	Schroon L-N	6/21/2005	epi	23	18	2	1	3	0											
34	Schroon L-N	7/5/2005	epi	18	23	3	1	4	5											
34	Schroon L-N	7/19/2005	epi	25	24	2	1	3	5											
34	Schroon L-N	8/2/2005	epi	22	22	2	1	1	0											
34	Schroon L-N	8/16/2005	epi	18	22	1	1	2	5											
34	Schroon L-N	8/30/2005	epi	18	20	2	1	2	5											
34	Schroon L-N	9/13/2005	epi	21	21	1	1	1	0											
34	Schroon L-N	9/27/2005	epi	14	18	1	1	1	0											
34	Schroon L-N	6/16/2006	epi	25	16	2	1	2	5											
34	Schroon L-N	6/29/2006	epi	19	17	2	1	4	58											
34	Schroon L-N	7/27/2006	epi	22	22	2	2	3	5											
34	Schroon L-N	8/10/2006	epi	17	22	2	2	2	5											
34	Schroon L-N	8/24/2006	epi	12	19	2	2	3	5											
34	Schroon L-N	9/7/2006	epi	18	18	2	2	3	5											
34	Schroon L-N	9/20/2006	epi	14	17	2	2	3	5											
34	Schroon L-N	6/22/2008	epi	16		1	1	4	5											
34	Schroon L-N	7/5/2008	epi	21	20	1		1	0											
34	Schroon L-N	7/21/2008	epi	18	22	2	2	3	6											
34	Schroon L-N	8/1/2008	epi	19	21	1	2	2	0											
34	Schroon L-N	8/18/2008	epi	17	17	2	1	1	0											
34	Schroon L-N	8/29/2008	epi	18	20	2	2	2	0											
34	Schroon L-N	9/16/2008	epi	12	18	1	1	1	0											
34	Schroon L-N	9/25/2008	epi	15	16	1	2	1	0											
34	Schroon L-N	07/02/2009	epi	21	22	1	2	1	0											
34	Schroon L-N	07/20/2009	epi	25	23	1	1	1	5											
34	Schroon L-N	08/13/2009	epi	25		1	1	2	0					0.01						
34	Schroon L-N	08/22/2009	epi	26		1	1	1	0											
34	Schroon L-N	08/30/2009	epi	24	17	1	1	2	0											
34	Schroon L-N	09/03/2009	epi	25	23	1	1	1	0			14.0								
34	Schroon L-N	09/13/2009	epi	22	22	1	1	1	0			16.0		0.03						
34	Schroon L-N	09/21/2009	epi	25	21	1	1	1	0			26.4								
34	Schroon L-N	5/25/2010	epi	22	15	1	1	1	6	0	0									
34	Schroon L-N	6/4/2010	epi	20	19	2	1	1	0	0	0									
34	Schroon L-N	7/13/2010	epi	22	23	1	1	1	0	0	0									
34	Schroon L-N	7/27/2010	epi	21		1	1	1	0	0	0	61.09								
34	Schroon L-N	8/17/2010	epi	18	21	1	1	1	0	0	0	38.94								
34	Schroon L-N	8/28/2010	epi	27	25	1	1	1	0	0	0									
34	Schroon L-N	10/7/2010	epi	11	11	1	1	4	5	0	0	20.00		0.01						
34	Schroon L-N	7/14/2011	epi	26	25	1	1	1	0	0	0	5.50	2.70							
34	Schroon L-N	7/23/2011	epi	38	33	1	1	1	0	0	0	5.10	2.20							
34	Schroon L-N	8/3/2011	epi	30	25	1	1	1	0	0	0	8.30	3.50							
34	Schroon L-N	8/17/2011	epi	23	24	1	1	1	0	0	0	12.00	2.80							
34	Schroon L-N	8/22/2011	epi	17	21	1	1	1	0	0	0	7.60	2.30							
34	Schroon L-N	9/7/2011	epi	22	23	1	1	1	0	0	0	5.80	3.80							
34	Schroon L-N	9/22/2011	epi	20	20	1	1	2	0	0	0	7.40	1.80							
34	Schroon L-N	9/28/2011	epi	21	21	1	1	2	0	0	0	7.70	3.70							
34	Schroon L-N	6/20/2012	epi	34	27	1	1	2	0	0	0	0.00	0.30	<0.30	<0.423		1.17	0.56		
34	Schroon L-N	7/5/2012	epi	25	27	1	1	2	0	0	0	-0.50	0.30	0.31	<0.392					
34	Schroon L-N	7/20/2012	epi	29	25	1	1	1	0	0	0	1.40	0.30	<0.30	<3.299				I	
34	Schroon L-N	8/10/2012	epi	22	24	1	1	2	0	0	0	3.00	0.50	<0.30	<0.223		14.29	10.72	I	
34	Schroon L-N	8/19/2012	epi	29	23	1	1	1	0	0	0	2.20	0.30	0.46	<3.299		1.72	0.88	I	
34	Schroon L-N	9/1/2012	epi	27	24	1	1	1	0	0	0	1.10	0.20	<0.30	<3.299		1.02	0.56	I	

LNum	PName	Date	Site	TAir	TH2O	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HAB form	Shore HAB
34	Schroon L-N	9/21/2012	epi	20	18	1	1	2	0	0	0	4.70	0.60	0.35	<3.205					
34	Schroon L-N	9/26/2012	epi	16	17	1	1	1	0	0	0	3.50	0.60	<0.30	<3.205		1.68	0.65	I	
34	Schroon L-N	6/24/2013	epi	29	23	1	1	1	0	0	0	0.70	1.10	<0.30	<0.490		1.40	0.20		
34	Schroon L-N	7/8/2013	epi	31	25	1	1	2	0	0	0	2.80	2.20	<0.30	<0.370		1.70	0.00	I	I
34	Schroon L-N	7/22/2013	epi	26	26	1	1	1	0	0	0	4.90	1.30	<0.30	<0.380		1.30	0.30	I	I
34	Schroon L-N	8/11/2013	epi	28	24	1	1	2	0	0	0	10.40	3.90	<0.30	<0.380		0.00	0.00	I	I
34	Schroon L-N	8/17/2013	epi	24	23	1	1	2	0	0	0			<0.30	<1.100		1.20	0.20	I	I
34	Schroon L-N	9/4/2013	epi	27	24	1	1	2	0	0	0			<0.30	<1.100		0.00	0.00	I	I
34	Schroon L-N	9/11/2013	epi	25	21	1	1	1	0	0	0	4.30	1.20	<0.30	<19.130		0.80	0.00	I	I
34	Schroon L-N	9/19/2013	epi	25	19	1	1	1	0	0	0	3.30	1.40	<0.30	<19.130		0.70	0.00	I	I
34	Schroon L-N	6/29/2014	epi	25	25					0	0	1.80	0.30	<0.39	<0.03	<0.001	0.93	0.00	i	i
34	Schroon L-N	7/20/2014	epi	27	24	1	1	1	0	0	0	2.60	0.30	<0.39	<0.03	<0.001	0.89	0.00	i	i
34	Schroon L-N	7/25/2014	epi	28	25	1	1	1	0	0	0			<0.35	<0.03	<0.001	0.27	0.00	i	i
34	Schroon L-N	8/14/2014	epi	17	23	1	1	1	0	0	0			<0.39	<0.03	<0.001	1.64	1.12	i	i
34	Schroon L-N	8/25/2014	epi	28	22	1	1	1	0	0	0	3.00	0.20	<0.28	<0.03	<0.001	1.36	0.10	i	i
34	Schroon L-N	9/14/2014	epi	16	19	1	1	1	0	0	0	8.30	0.40	<0.28	<0.03	<0.001	1.42	0.00	i	i
34	Schroon L-N	6/10/2002	hypo	22	10															
34	Schroon L-N	6/25/2002	hypo	28	12															
34	Schroon L-N	7/9/2002	hypo	25																
34	Schroon L-N	7/23/2002	hypo	25																
34	Schroon L-N	8/6/2002	hypo	18	10															
34	Schroon L-N	8/20/2002	hypo	26	9															
34	Schroon L-N	9/3/2002	hypo	27	10.0															
34	Schroon L-N	9/17/2002	hypo	25	11															
34	Schroon L-N	6/24/2003	hypo		9															
34	Schroon L-N	7/8/2003	hypo		9															
34	Schroon L-N	7/22/2003	hypo		8															
34	Schroon L-N	8/5/2003	hypo		8															
34	Schroon L-N	8/19/2003	hypo		12															
34	Schroon L-N	9/2/2003	hypo		7															
34	Schroon L-N	9/17/2003	hypo		7															
34	Schroon L-N	9/30/2003	hypo		7															
34	Schroon L-N	6/11/2004	hypo		7															
34	Schroon L-N	6/23/2004	hypo		6															
34	Schroon L-N	7/7/2004	hypo		7															
34	Schroon L-N	7/21/2004	hypo		7															
34	Schroon L-N	9/14/2004	hypo		5															
34	Schroon L-N	7/19/2005	hypo		6															
34	Schroon L-N	8/2/2005	hypo		5															
34	Schroon L-N	8/16/2005	hypo		6															
34	Schroon L-N	8/30/2005	hypo		6															
34	Schroon L-N	9/13/2005	hypo		7															
34	Schroon L-N	9/27/2005	hypo		5															
34	Schroon L-N	6/16/2006	hypo		9															
34	Schroon L-N	6/29/2006	hypo		8															
34	Schroon L-N	7/27/2006	hypo		5															
34	Schroon L-N	8/10/2006	hypo		5															
34	Schroon L-N	8/24/2006	hypo		5															
34	Schroon L-N	9/7/2006	hypo		5															
34	Schroon L-N	9/20/2006	hypo		5															
34	Schroon L-N	6/22/2008	hypo		3															
34	Schroon L-N	7/5/2008	hypo		5															
34	Schroon L-N	7/21/2008	hypo		5															
34	Schroon L-N	8/1/2008	hypo		5															
34	Schroon L-N	8/18/2008	hypo		4															
34	Schroon L-N	8/29/2008	hypo		4															
34	Schroon L-N	9/16/2008	hypo		5															
34	Schroon L-N	9/25/2008	hypo		5															
34	Schroon L-N	07/20/2009	hypo		9															
34	Schroon L-N	08/13/2009	hypo		11															
34	Schroon L-N	08/22/2009	hypo		9															



LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QFQG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HAB form	Shore HAB
34	Schroon L-N	09/03/2009	hypo		10														
34	Schroon L-N	09/13/2009	hypo		10														
34	Schroon L-N	09/21/2009	hypo		9														
34	Schroon L-N	5/25/2010	hypo		6														
34	Schroon L-N	7/13/2010	hypo		6														
34	Schroon L-N	8/17/2010	hypo		5														
34	Schroon L-N	8/28/2010	hypo		10														
34	Schroon L-N	7/14/2011	hypo		10														
34	Schroon L-N	8/3/2011	hypo		8														
34	Schroon L-N	8/22/2011	hypo		10														
34	Schroon L-N	9/22/2011	hypo		8														
34	Schroon L-N	6/20/2012	hypo		11														
34	Schroon L-N	7/5/2012	hypo		12														
34	Schroon L-N	7/20/2012	hypo		11														
34	Schroon L-N	8/10/2012	hypo		13														
34	Schroon L-N	8/19/2012	hypo		9														
34	Schroon L-N	9/1/2012	hypo		7														
34	Schroon L-N	9/21/2012	hypo		7														
34	Schroon L-N	9/26/2012	hypo		7														
34	Schroon L-N	6/24/2013	hypo		21														
34	Schroon L-N	7/8/2013	hypo		22														
34	Schroon L-N	7/22/2013	hypo		7														
34	Schroon L-N	8/11/2013	hypo		6														
34	Schroon L-N	8/17/2013	hypo		6														
34	Schroon L-N	9/4/2013	hypo		6														
34	Schroon L-N	9/11/2013	hypo		6														
34	Schroon L-N	9/19/2013	hypo		6														
34	Schroon L-N	6/29/2014	hypo		7														
34	Schroon L-N	7/20/2014	hypo		22														
34	Schroon L-N	7/25/2014	hypo		21														
34	Schroon L-N	8/14/2014	hypo		5														
34	Schroon L-N	8/25/2014	hypo		7														
34	Schroon L-N	9/14/2014	hypo		6														
34.1	Schroon L-S	6/24/2003	epi	36	24	2	1	1	8			epi							
34.1	Schroon L-S	7/8/2003	epi	27	25	1	1	1											
34.1	Schroon L-S	7/22/2003	epi	23	23	1	1	1	8										
34.1	Schroon L-S	8/5/2003	epi	26	24	2	1	2	5										
34.1	Schroon L-S	8/19/2003	epi	22	24	1	1	1											
34.1	Schroon L-S	9/2/2003	epi	18	21	2	1	2	5										
34.1	Schroon L-S	9/17/2003	epi	23	21	1	1	1											
34.1	Schroon L-S	9/30/2003	epi	16		1	1	1	5										
34.1	Schroon L-S	6/11/2004	epi	23	19	3	1	3	8										
34.1	Schroon L-S	6/23/2004	epi	25	21	2	1	1	0										
34.1	Schroon L-S	7/7/2004	epi	19	21	2	1	2	5										
34.1	Schroon L-S	7/21/2004	epi	27	23	1	1	2	5										
34.1	Schroon L-S	8/4/2004	epi	20	24	2	1	3	5										
34.1	Schroon L-S	8/18/2004	epi	20	20	2	1	4	5										
34.1	Schroon L-S	9/1/2004	epi	20	21	1	1	2	5										
34.1	Schroon L-S	9/14/2004	epi	17	17	2	1	1	0										
34.1	Schroon L-S	6/21/2005	epi	23	19	2	1	3	0										
34.1	Schroon L-S	7/5/2005	epi	18	22	3	1	4	5										
34.1	Schroon L-S	7/19/2005	epi	25	24	2	1	3	5										
34.1	Schroon L-S	8/2/2005	epi	23	22	2	1	1	0										
34.1	Schroon L-S	8/16/2005	epi	20	22	1	1	2	5										
34.1	Schroon L-S	8/30/2005	epi	16	20	2	1	2	5										
34.1	Schroon L-S	9/13/2005	epi	24	21	1	1	1	0										
34.1	Schroon L-S	9/27/2005	epi	17	17	1	1	1	0										
34.1	Schroon L-S	6/16/2006	epi	25	17	2	2	2	5										
34.1	Schroon L-S	6/28/2006	epi	21	18	2	1	4	5										
34.1	Schroon L-S	7/27/2006	epi	22	22	2	2	3	5										
34.1	Schroon L-S	8/10/2006	epi	18	22	2	2	1	5										

LNum	PName	Date	Site	TAir	TH2O	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HAB form	Shore HAB
34.1	Schroon L-S	8/24/2006	epi	13	19	2	2	3	5											
34.1	Schroon L-S	9/7/2006	epi	18	18	2	2	3	5											
34.1	Schroon L-S	9/20/2006	epi	13	16	2	2	3	5											
34.1	Schroon L-S	6/22/2008	epi	16	21	1	2	1	0											
34.1	Schroon L-S	7/23/2008	epi	21	23	1	1	1	5											
34.1	Schroon L-S	8/18/2008	epi	24	24	1	1	1	15											
34.1	Schroon L-S	8/27/2008	epi	28	23	1	3	1	0											
34.1	Schroon L-S	9/20/2008	epi	24	21	1	1	1	0											
34.1	Schroon L-S	9/23/2008	epi	24	22															
34.1	Schroon L-S	10/7/2008	epi	6	12	1	2	1	8											
34.1	Schroon L-S	06/30/2009	epi	16	19	1	3	1	0											
34.1	Schroon L-S	07/10/2009	epi	26	19	1	3	1	0											
34.1	Schroon L-S	07/19/2009	epi	19	18	1	3	2	0											
34.1	Schroon L-S	08/04/2009	epi	21	20	2	3	2	28											
34.1	Schroon L-S	08/21/2009	epi	23	22	1	3	2	0					0.01						
34.1	Schroon L-S	09/01/2009	epi	7	18	1	3	1	0			15.4								
34.1	Schroon L-S	09/17/2009	epi	13	18	1	3	1	0			17.9		0.02						
34.1	Schroon L-S	10/02/2009	epi									19.4		0.01						
34.1	Schroon L-S	6/13/2010	epi	18	18	1	1	2	0	0	0									
34.1	Schroon L-S	6/27/2010	epi	28	26	1	1	2	0	0	0									
34.1	Schroon L-S	7/8/2010	epi	37	29	1	1	1	0	0	0									
34.1	Schroon L-S	7/31/2010	epi	28	26	1	1	2	0	0	0									
34.1	Schroon L-S	8/12/2010	epi	24	25							7.00		0.01						
34.1	Schroon L-S	8/24/2010	epi	20	22	1	1	1	0	0	n	29.32								
34.1	Schroon L-S	9/7/2010	epi	16	19	1	1	1	0	0	0	43.51								
34.1	Schroon L-S	10/10/2010	epi	13	12	1	3	1	0	0	0	57.04								
34.1	Schroon L-S	7/10/2011	epi	33	22	1	1	1	0	0	0									
34.1	Schroon L-S	7/19/2011	epi	26	24	2	2	1	0	0		2.80	2.50							
34.1	Schroon L-S	7/31/2011	epi	17	22	1	3	1	0	0	0	4.10	1.97							
34.1	Schroon L-S	8/19/2011	epi	17	22	2	3	1	0	0	0	6.00	2.50							
34.1	Schroon L-S	8/31/2011	epi	23	18	1	3	1	0	0	0	8.90	2.20							
34.1	Schroon L-S	9/18/2011	epi	13	16	2	3	1	0	0	0	4.70	2.40							
34.1	Schroon L-S	10/9/2011	epi	25	15	1	1	1	0	0	0	3.40	5.10							
34.1	Schroon L-S	6/28/2012	epi	27	20	2	2	2	0	0	0								I	
34.1	Schroon L-S	7/22/2012	epi	28	22	2	3	2	0	0	0								F	
34.1	Schroon L-S	8/12/2012	epi	24	23	1	3	1	0	0	0	4.80	0.50	<0.30	<0.537		3.21	1.78	I	
34.1	Schroon L-S	8/26/2012	epi	18	21	1	3	2	0	0	0	2.00	0.40	<0.30	<0.551		2.22	1.12	I	
34.1	Schroon L-S	9/4/2012	epi	17	20	1	3	2	0	0	0	1.60	0.40	<0.30	<0.725		2.43	1.50		
34.1	Schroon L-S	9/16/2012	epi	17	18	1	1	1	0	0	0	0.30	0.50	<0.30	<3.205		2.05	0.89		
34.1	Schroon L-S	7/21/2013	epi																	
34.1	Schroon L-S	7/31/2013	epi	28	21	2	2	2	0	0	0	4.50	1.10	<0.30	<0.390		1.70	0.70	I	
34.1	Schroon L-S	8/19/2013	epi	24	21	2	3	2	0	0	0	4.60	1.50	<0.30	<0.390		1.30	0.20	I	
34.1	Schroon L-S	9/18/2013	epi	22	17	2	3	2	0	0	0	3.20	1.60	<0.30	<19.130		1.80	0.30	I	I
34.1	Schroon L-S	6/24/2003	hypo		9															
34.1	Schroon L-S	7/8/2003	hypo		9															
34.1	Schroon L-S	7/22/2003	hypo		7															
34.1	Schroon L-S	8/5/2003	hypo		8															
34.1	Schroon L-S	8/19/2003	hypo		11															
34.1	Schroon L-S	9/2/2003	hypo		8															
34.1	Schroon L-S	9/17/2003	hypo		15															
34.1	Schroon L-S	9/30/2003	hypo		7															
34.1	Schroon L-S	6/11/2004	hypo		8															
34.1	Schroon L-S	6/23/2004	hypo		6															
34.1	Schroon L-S	7/7/2004	hypo		5															
34.1	Schroon L-S	7/21/2004	hypo		6															
34.1	Schroon L-S	8/4/2004	hypo		6															
34.1	Schroon L-S	8/18/2004	hypo		7															
34.1	Schroon L-S	9/1/2004	hypo		6															
34.1	Schroon L-S	9/14/2004	hypo		6															
34.1	Schroon L-S	6/21/2005	hypo		6															
34.1	Schroon L-S	7/19/2005	hypo		8															

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QFQG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HAB form	Shore HAB
34.1	Schroon L-S	8/2/2005	hypo		6														
34.1	Schroon L-S	8/16/2005	hypo		7														
34.1	Schroon L-S	8/30/2005	hypo		7														
34.1	Schroon L-S	9/13/2005	hypo		8														
34.1	Schroon L-S	9/27/2005	hypo		7														
34.1	Schroon L-S	6/16/2006	hypo		6														
34.1	Schroon L-S	6/28/2006	hypo		8														
34.1	Schroon L-S	7/27/2006	hypo		5														
34.1	Schroon L-S	8/10/2006	hypo		5														
34.1	Schroon L-S	8/24/2006	hypo		5														
34.1	Schroon L-S	9/7/2006	hypo		7														
34.1	Schroon L-S	9/20/2006	hypo		5														
34.1	Schroon L-S	7/23/2008	hypo		8														
34.1	Schroon L-S	8/18/2008	hypo		9														
34.1	Schroon L-S	8/27/2008	hypo		10														
34.1	Schroon L-S	9/20/2008	hypo		9														
34.1	Schroon L-S	9/23/2008	hypo		8														
34.1	Schroon L-S	10/7/2008	hypo		6														
34.1	Schroon L-S	06/30/2009	hypo		6														
34.1	Schroon L-S	07/10/2009	hypo		5														
34.1	Schroon L-S	07/19/2009	hypo		5														
34.1	Schroon L-S	08/04/2009	hypo		5														
34.1	Schroon L-S	08/21/2009	hypo		5														
34.1	Schroon L-S	09/01/2009	hypo		5														
34.1	Schroon L-S	6/13/2010	hypo		10														
34.1	Schroon L-S	7/8/2010	hypo		9														
34.1	Schroon L-S	7/31/2010	hypo		10														
34.1	Schroon L-S	8/24/2010	hypo		10														
34.1	Schroon L-S	10/10/2010	hypo		5														
34.1	Schroon L-S	7/10/2011	hypo		5														
34.1	Schroon L-S	7/31/2011	hypo		14														
34.1	Schroon L-S	8/31/2011	hypo		5														
34.1	Schroon L-S	10/9/2011	hypo		5														
34.1	Schroon L-S	6/28/2012	hypo		7														
34.1	Schroon L-S	7/22/2012	hypo		7														
34.1	Schroon L-S	8/12/2012	hypo		7														
34.1	Schroon L-S	8/26/2012	hypo		6														
34.1	Schroon L-S	9/4/2012	hypo		6														
34.1	Schroon L-S	9/16/2012	hypo		6														
34.1	Schroon L-S	7/31/2013	hypo		10														
34.1	Schroon L-S	8/19/2013	hypo		4														
34.1	Schroon L-S	9/18/2013	hypo		5														

## Legend Information

<i>Indicator</i>	<i>Description</i>	<i>Detection Limit</i>	<i>Standard (S) / Criteria (C)</i>
<b>General Information</b>			
<b>Lnum</b>	lake number (unique to CSLAP)		
<b>Lname</b>	name of lake (as it appears in the Gazetteer of NYS Lakes)		
<b>Date</b>	sampling date		
<b>Field Parameters</b>			
<b>Zbot</b>	lake depth at sampling point, meters (m)		
<b>Zsd</b>	Secchi disk transparency or clarity	0.1m	1.2m ( C)
<b>Zsamp</b>	water sample depth (m) (epi = epilimnion or surface; bot = bottom)	0.1m	none
<b>Tair</b>	air temperature ( C)	-10C	none
<b>TH20</b>	water temperature ( C)	-10C	none
<b>Laboratory Parameters</b>			
<b>Tot.P</b>	total phosphorus (mg/l)	0.003 mg/l	0.020 mg/l ( C)
<b>NOx</b>	nitrate + nitrite (mg/l)	0.01 mg/l	10 mg/l NO3 (S), 2 mg/l NO2 (S)
<b>NH4</b>	total ammonia (mg/l)	0.01 mg/l	2 mg/l NH4 (S)
<b>TN</b>	total nitrogen (mg/l)	0.01 mg/l	none
<b>TN/TP</b>	nitrogen to phosphorus (molar) ratio, = (TKN + NOx)*2.2/TP		none
<b>TCOLOR</b>	true (filtered) color (ptu, platinum color units)	1 ptu	none
<b>pH</b>	powers of hydrogen (S.U., standard pH units)	0.1 S.U.	6.5, 8.5 S.U. (S)
<b>Cond25</b>	specific conductance, corrected to 25C (umho/cm)	1 umho/cm	none
<b>Ca</b>	calcium (mg/l)	1 mg/l	none
<b>Chl.a</b>	chlorophyll a (ug/l)	0.01 ug/l	none
<b>Fe</b>	iron (mg/l)	0.1 mg/l	1.0 mg/l (S)
<b>Mn</b>	manganese (mg/l)	0.01 mg/l	0.3 mg/l (S)
<b>As</b>	arsenic (ug/l)	1 ug/l	10 ug/l (S)
<b>AQ-PC</b>	Phycocyanin (aquafior) (unitless)	1 unit	none
<b>AQ-Chl</b>	Chlorophyll a (aquafior) (ug/l)	1 ug/l	none
<b>MC-LR</b>	Microcystis-LR (ug/l)	0.01 ug/l	1 ug/l potable (C) 20 ug/l swimming (C)
<b>Ana</b>	Anatoxin-a (ug/l)	variable	none
<b>Cyl</b>	Cylindrospermopsin (ug/l)	0.1 ug/l	none
<b>FP-Chl, FP-BG</b>	Fluoroprobe total chlorophyll, fluoroprobe blue-green chlorophyll (ug/l)	0.1 ug/l	none
<b>Lake Assessment</b>			
<b>QA</b>	water quality assessment; 1 = crystal clear, 2 = not quite crystal clear, 3 = definite algae greenness, 4 = high algae levels, 5 = severely high algae levels		
<b>QB</b>	aquatic plant assessment; 1 = no plants visible, 2 = plants below surface, 3 = plants at surface, 4 = plants dense at surface, 5 = surface plant coverage		
<b>QC</b>	recreational assessment; 1 = could not be nicer, 2 = excellent, 3 = slightly impaired, 4 = substantially impaired, 5 = lake not usable		
<b>QD</b>	reasons for recreational assessment; 1 = poor water clarity, 2 = excessive weeds, 3 = too much algae, 4 = lake looks bad, 5 = poor weather, 6 = litter/surface debris, 7 = too many lake users, 8 = other		
<b>QF, QG</b>	Health and safety issues today (QF) and past week (QG); 0 = none, 1 = taste/odor, 2 = GI illness humans/animals, 3 = swimmers itch, 4 = algae blooms, 5 = dead fish, 6 = unusual animals, 7 = other		
<b>HAB form, Shore HAB</b>	HAB evaluation; A = spilled paint, B = pea soup, C = streaks, D = green dots, E = bubbling scum, F = green/brown tint, G = duckweed, H = other, I = no bloom		

## Appendix B- Priority Waterbody Listing for Schroon Lake

### Schroon Lake (1104-0002)

### Impaired Seg

#### Waterbody Location Information

Revised: 12/11/2006

<b>Water Index No:</b>	H-391 (portion 3)/P374	<b>Drain Basin:</b>	Upper Hudson River
<b>Hydro Unit Code:</b>	02020001/090	<b>Str Class:</b>	A
<b>Waterbody Type:</b>	Lake	<b>Reg/County:</b>	5/Warren Co. (57)
<b>Waterbody Size:</b>	4128.1 Acres	<b>Quad Map:</b>	SCHROON LAKE (F-25-0)
<b>Seg Description:</b>	entire lake		

#### Water Quality Problem/Issue Information (CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

<b>Use(s) Impacted</b>	<b>Severity</b>	<b>Problem Documentation</b>
FISH CONSUMPTION	Impaired	Known

#### Type of Pollutant(s)

Known: METALS (mercury), PRIORITY ORGANICS (PCBs)  
Suspected: ---  
Possible: ---

#### Source(s) of Pollutant(s)

Known: ---  
Suspected: TOX/CONTAM. SEDIMENT  
Possible: UNKNOWN SOURCE

#### Resolution/Management Information

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

#### Further Details

Fish consumption in Schroon Lake is impaired due to a NYS DOH health advisory that recommends eating no more than one meal per month of larger lake trout (over 27 inches), larger yellow perch (over 13 inches) and smallmouth bass; the advisories are the result of elevated PCB and mercury levels. The most recent laboratory results from lake trout and yellow perch collected in 1989 (DFW) suggest that PCB and other organochlorine concentrations in fish have declined, but mercury concentrations in lake trout were still relatively high. 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 related to PCBs was issued prior to 1998-99; the mercury advisory was added in 2000-01. (2006-07 NYS DOH Health Advisories and DEC/FWMR, Habitat, December 2006).

Water column, soil and bottom sediment samples taken by the regional staff (1990) and central office (1991, DEC/DOW BMA report June 1992) showed only very low concentrations of PCBs and mercury. Macroinvertebrate sampling (1991) found no significant levels of PCBs in invertebrates, but mercury was found above levels of concern in crayfish in Schroon River above the inlet. Based on the various data gathered it was determined jointly by DFW and BMA staff that although PCB and other organochlorine contamination of Schroon Lake lake trout is no longer as serious, monitoring of the Fisheries resource should be continued, since sensitive species of fish-eating wildlife are at risk. No additional

biological sampling of the Schroon River inlet or its tributaries was recommended, as DFW data suggested mercury concentrations, though elevated, were typical of other waters affected by atmospheric deposition of mercury in this region of NYS. (DEC/DOW and FWMR, BWAM and Habitat, 2000)

Schroon Lake has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1987 and continuing through 2005. An Interpretive Summary report of the findings of this sampling was published in 2006. These data indicate that the lake continues to be best characterized as mesoligotrophic, or moderately unproductive. Phosphorus levels in the lake are consistently below criteria that would indicate impacted recreational uses and transparency measurements satisfy what is recommended for swimming beaches. (DEC/DOW, BWAM/CSLAP, May 2006)

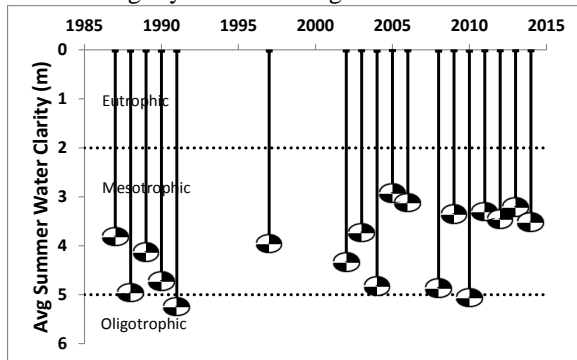
Public perception of the Schroon Lake and its uses are also evaluated as part of the CSLAP program. These assessment also indicate recreational suitability of the lake to be mostly favorable since the lake was first evaluated and continuing through the most recent assessment. Recreational conditions in the lake have been most often described as "could not be nicer" to "excellent" for most uses. The lake is regularly described as "not quite crystal clear." Aquatic plant are not typically visible from the lake surface. (DEC/DOW, BWAM/CSLAP, May 2006)

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

## Appendix C- Long Term Trends: Schroon Lake-North Basin

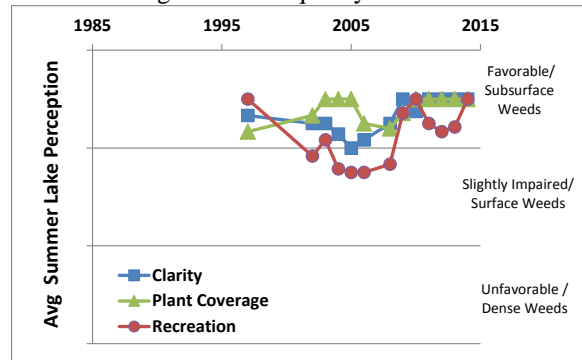
### Long Term Trends: Water Clarity

- No trends apparent; slightly lower since '11
- Most readings typical of *mesotrophic* lakes, slightly lower than algae and TP levels



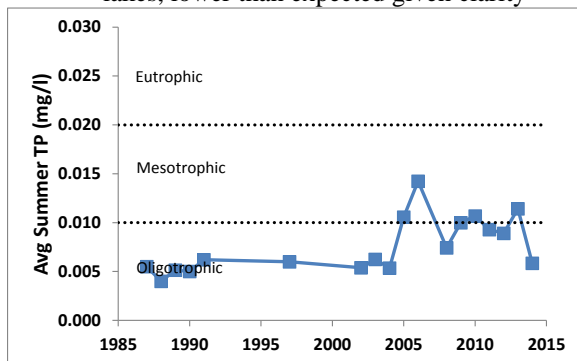
### Long Term Trends: Lake Perception

- Slightly degrading recreation since mid-00s
- Recreational perception not closely linked to changes in water quality or weeds



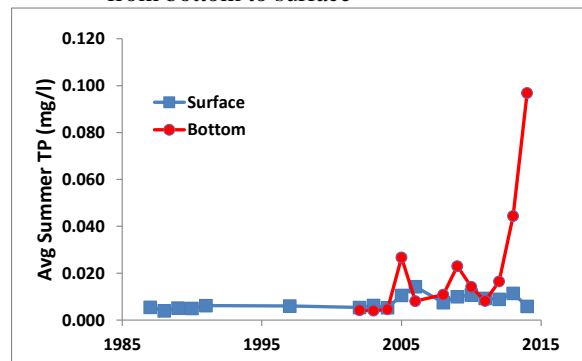
### Long Term Trends: Phosphorus

- Slight  $\uparrow$  in TP levels since mid-2000s
- Most readings typical of *mesotrophic* lakes, lower than expected given clarity



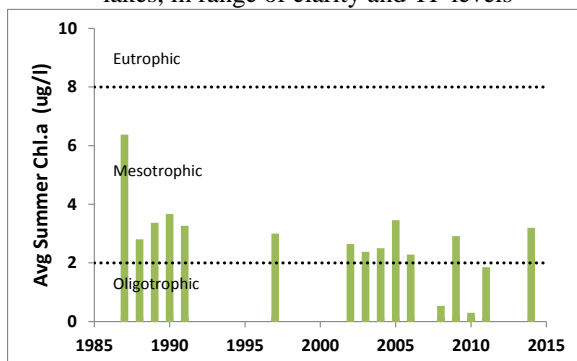
### Long Term Trends: Bottom Phosphorus

- Bottom TP slightly  $>$  surface TP most years
- Not likely that TP is migrating significantly from bottom to surface



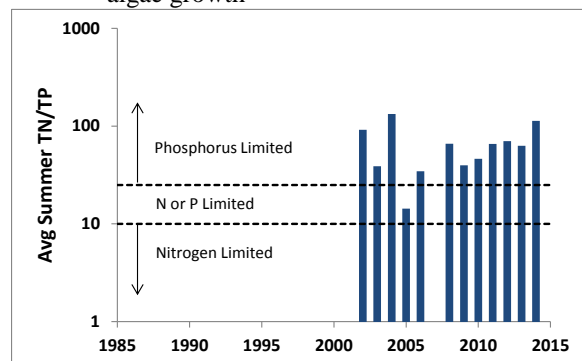
### Long Term Trends: Chlorophyll a

- Too few chlorophyll samples to evaluate
- Most readings typical of *mesotrophic* lakes, in range of clarity and TP levels



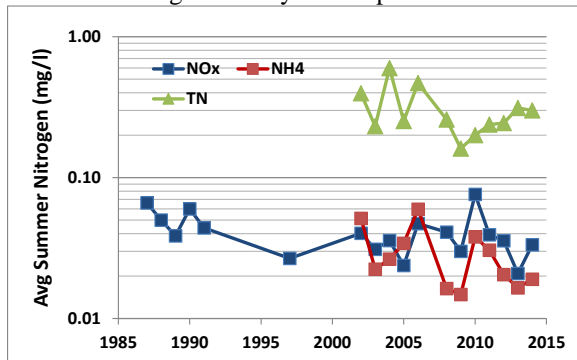
### Long Term Trends: N:P Ratio

- No trends apparent
- Most readings indicate phosphorus limits algae growth



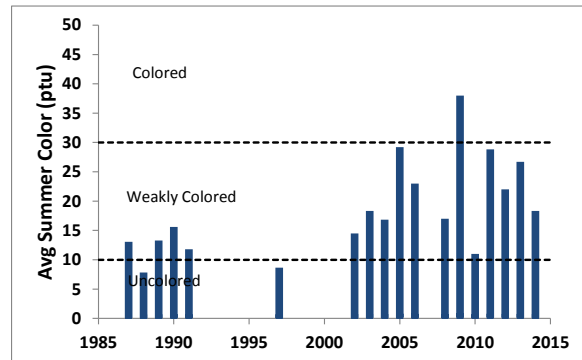
### Long Term Trends: Nitrogen

- Recent increase in TN, drop in NH<sub>4</sub> & NO<sub>x</sub>
- Low NO<sub>x</sub>, ammonia, and total nitrogen readings in nearly all samples



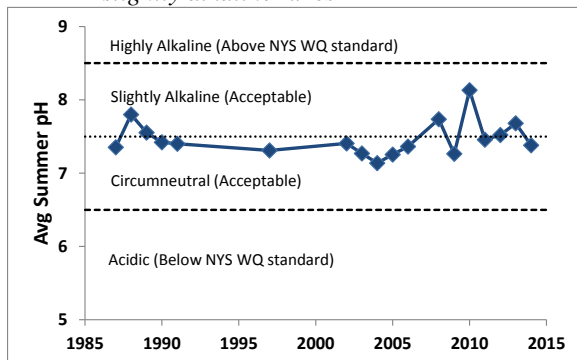
### Long Term Trends: Color

- Higher color since 2002 due to lab change
- Most readings typical of *uncolored to weakly colored* lakes



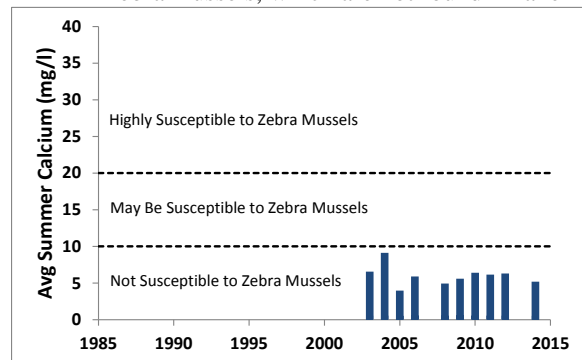
### Long Term Trends: pH

- No trends; fairly stable year to year
- Most readings typical of *circumneutral to slightly alkaline* lakes



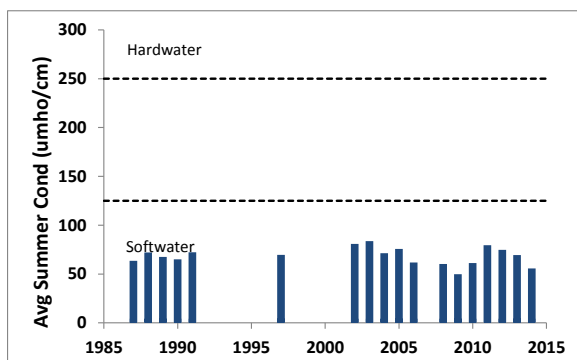
### Long Term Trends: Calcium

- No trends apparent
- Most readings indicate low susceptibility to zebra mussels, which are not found in lake



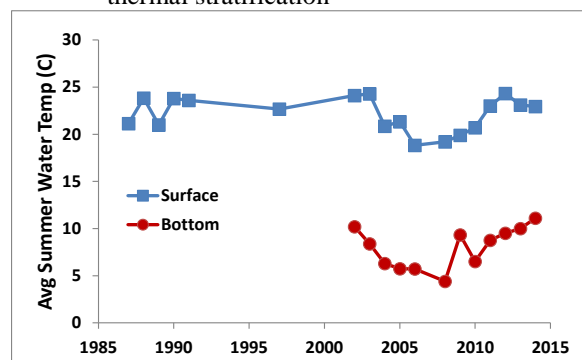
### Long Term Trends: Conductivity

- No trends apparent; slight ↓ since early 00s
- Most readings typical of *softwater* lakes



### Long Term Trends: Water Temperature

- No long term trends; bottom T increasing?
- Low deepwater temperatures indicate strong thermal stratification

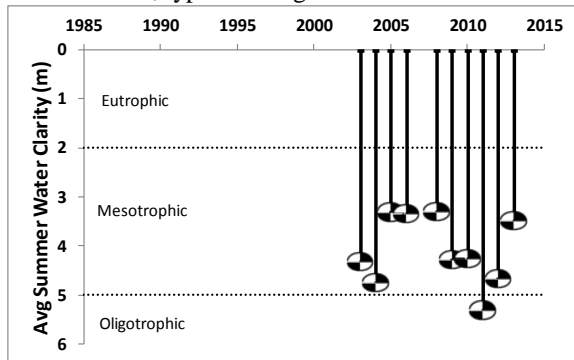




## Appendix C- Long Term Trends: Schroon Lake-South Basin (no '14 data)

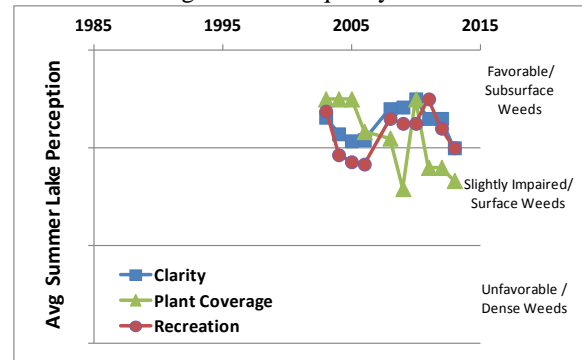
### Long Term Trends: Water Clarity

- No trends apparent; slight variability
- Most readings typical of *mesoligotrophic* lakes, typical of algae and TP levels



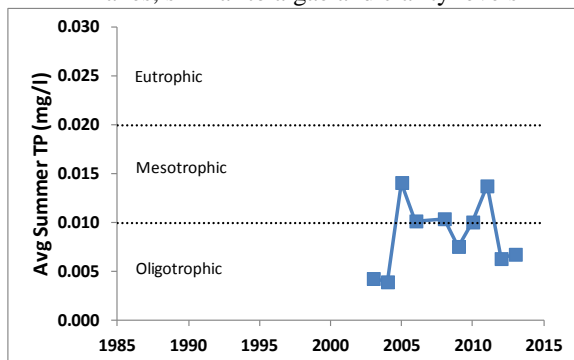
### Long Term Trends: Lake Perception

- Slight increase in aquatic plant growth
- Recreational perception more closely linked to changes in water quality than weeds



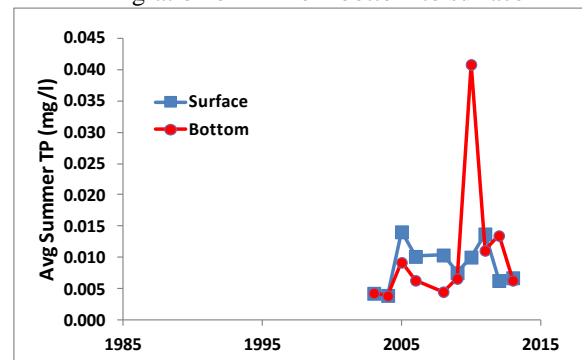
### Long Term Trends: Phosphorus

- No long term trend; slightly variable
- Most readings typical of *mesoligotrophic* lakes, similar to algae and clarity levels



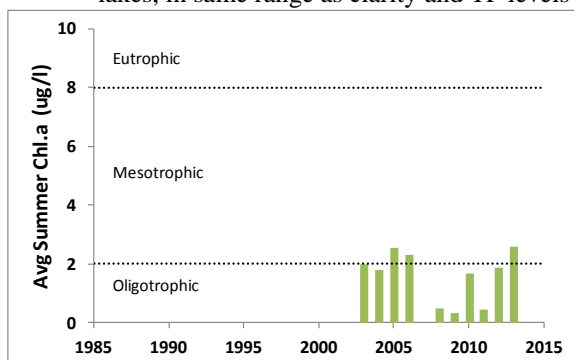
### Long Term Trends: Bottom Phosphorus

- Most bottom TP similar to surface TP
- Despite strong thermal layer, likely little migration of TP from bottom to surface



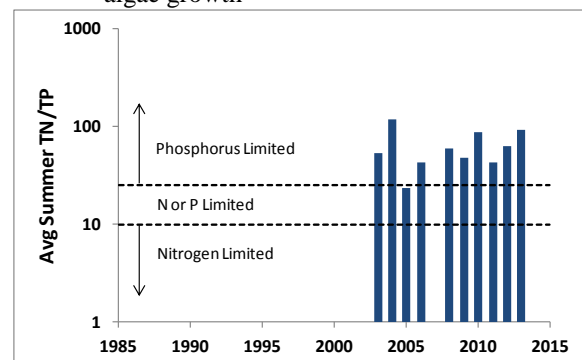
### Long Term Trends: Chlorophyll a

- No trends apparent
- Most readings typical of *mesoligotrophic* lakes, in same range as clarity and TP levels



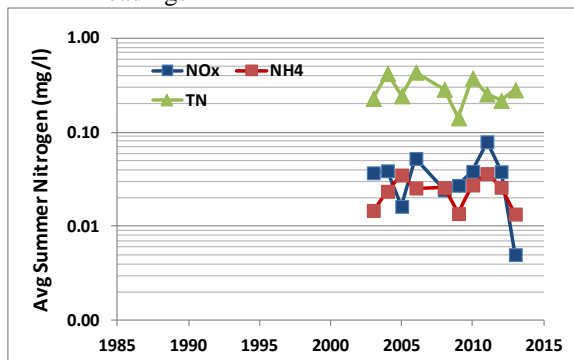
### Long Term Trends: N:P Ratio

- No trends apparent
- Most readings indicate phosphorus limits algae growth



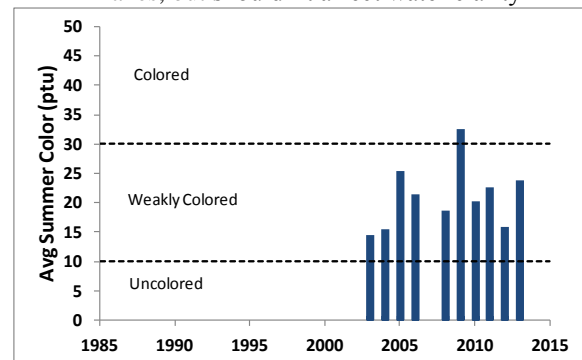
### Long Term Trends: Nitrogen

- No trends apparent
- Low NO<sub>x</sub>, ammonia, and total nitrogen readings



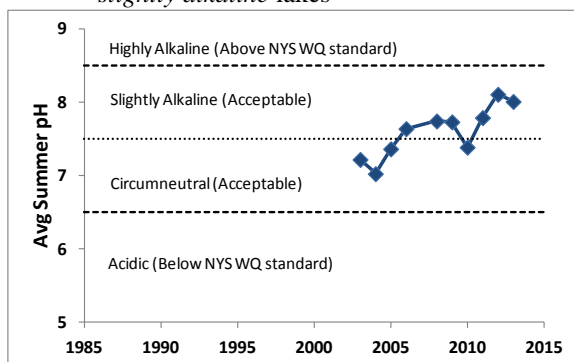
### Long Term Trends: Color

- No trends apparent
- Most readings typical of *weakly colored* lakes, but shouldn't affect water clarity



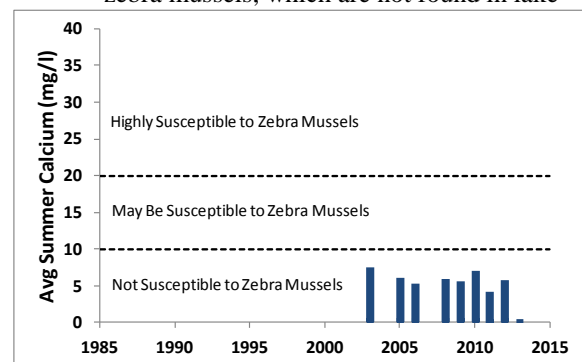
### Long Term Trends: pH

- pH increasing since early 2000s
- Most readings typical of *circumneutral* to *slightly alkaline* lakes



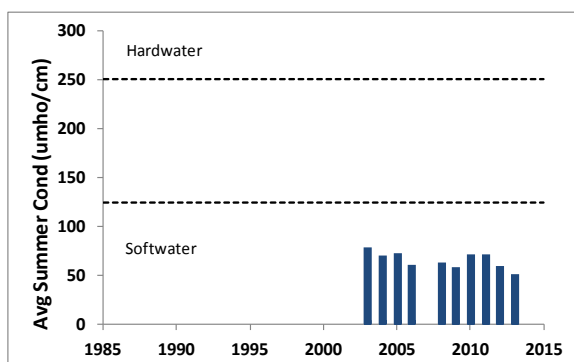
### Long Term Trends: Calcium

- No trends apparent
- Most readings indicate low susceptibility to zebra mussels, which are not found in lake



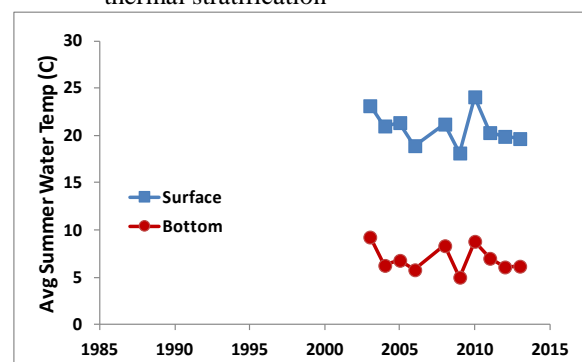
### Long Term Trends: Conductivity

- No trends apparent
- Most readings typical of *softwater* lakes



### Long Term Trends: Water Temperature

- No trends apparent in surface temperatures
- Low deepwater temperatures indicate strong thermal stratification



## **Appendix D: Algae Testing Results from SUNY ESF Study**

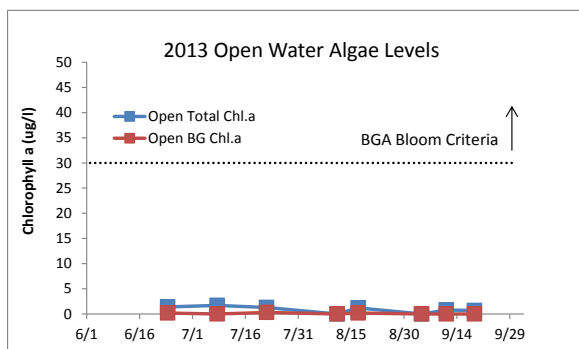
Most algae are harmless, naturally present, and an important part of the food web. However excessive algae growth can cause health, recreational, and aesthetic problems. Some algae can produce toxins that can be harmful to people and animals. High quantities of these algae are called harmful algal blooms (HABs). CSLAP lakes have been sampled for a variety of HAB indicators since 2008. This was completed on selected lakes as part of a NYS DOH study from 2008-2010. In 2011, enhanced sampling on all CSLAP lakes was initiated through an EPA-funded project that has continued through the current sampling season. This study has evaluated a number of HAB indicators as follows:

- Algae types - blue green, green, diatoms, and "other"
- Algae densities
- Microscopic analysis of bloom samples
- Algal toxin analysis

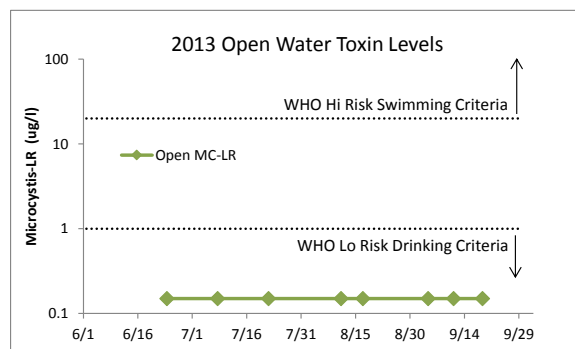
Some of these results are reported in other portions of these reports. This appendix the seasonal change in blue green algae, other algae types, and the primary algal toxin (microcystin-LR, a liver toxin). Analysis was completed on open water samples and, for some lakes, shoreline samples that were collected when visual evidence of blooms were apparent. Results are compared to the DEC criteria of 30 ug/l blue green chlorophyll a and 20 ug/l microcystin-LR (based on the World Health Organization (WHO) threshold for unsafe swimming conditions) and the WHO provisional criteria for long-term protection of treated water supplies (= 1 ug/l microcystin-LR). The data for algae types are drawn from a high end fluorometer used by SUNY ESF. While these results are useful for timely approximation of lake conditions, they are not as accurate as the total chlorophyll results measured as a regular part of CSLAP since 1986 in all open water samples. Therefore these results are used judiciously in the assessment of sampled waterbodies.

Two separate samples are evaluated. A sample is taken at the CSLAP sample point at the deepest point of the lake at every sample session. In addition, shoreline samples can be taken when a bloom is visible. It should be noted that shoreline conditions can vary significantly over time and from one location to another. The shoreline bloom sampling results summarized below are not collected as routinely as open water samples, and therefore represent snapshots in time. It is assumed that sampling results showing high blue green algae and/or toxin levels indicate that algae blooms may be common and/or widespread on these lakes. However, the absence of elevated blue green algae and toxin levels does not assure the lack of shoreline blooms on these lakes. Elevated open water readings may indicate a higher likelihood of shoreline blooms, but in some lakes, these shoreline blooms have not been (well) documented.

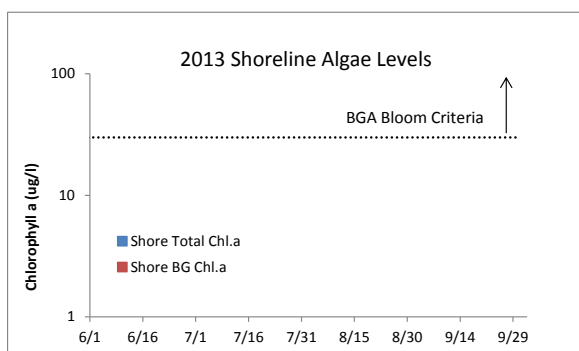
The results from these samples are summarized within the CSLAP report for the lake.



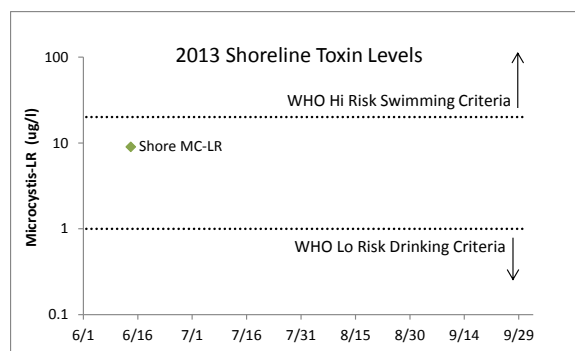
**Figure D1a:**  
2013 Open Water Total and BGA Chl.a-North



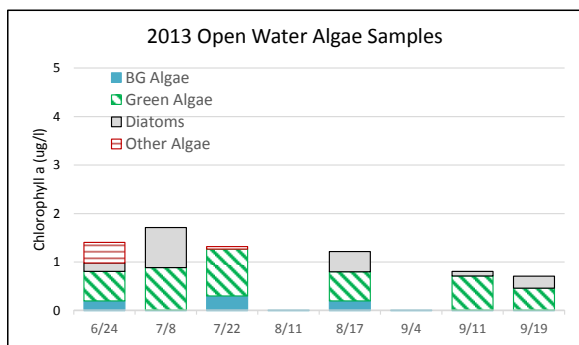
**Figure D2a:**  
2013 Open Water Microcystin-LR-North



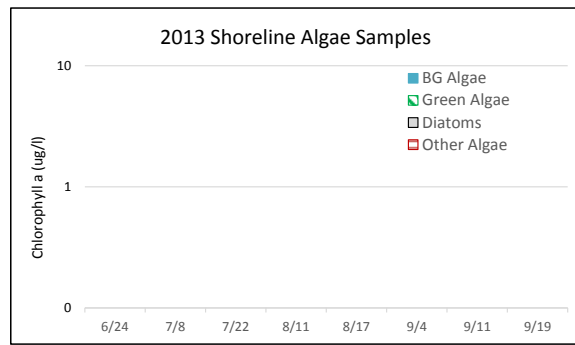
**Figure D3a:**  
2013 Shoreline Total and BGA Chl.a-North



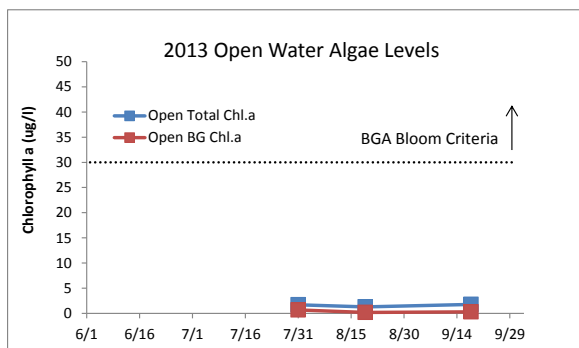
**Figure D4a:**  
2013 Shoreline Microcystin-LR-North



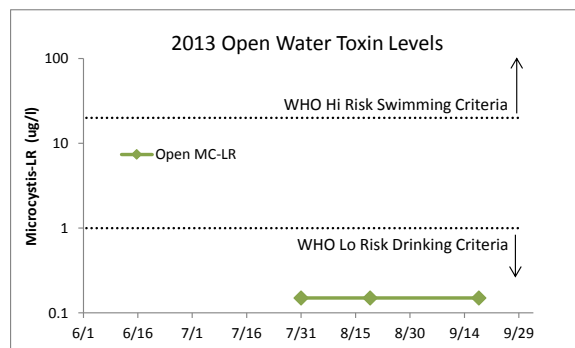
**Figure D5a:**  
2013 Open Water Algae Types-North



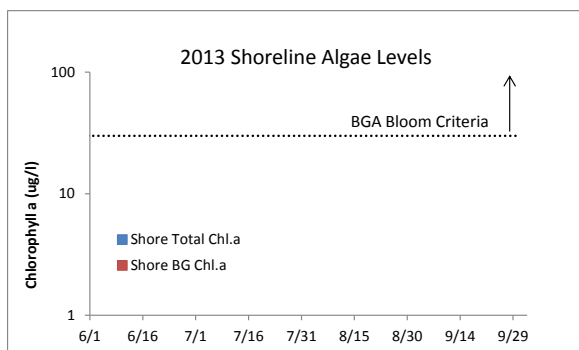
**Figure D6a:**  
2013 Shoreline Algae Types-North



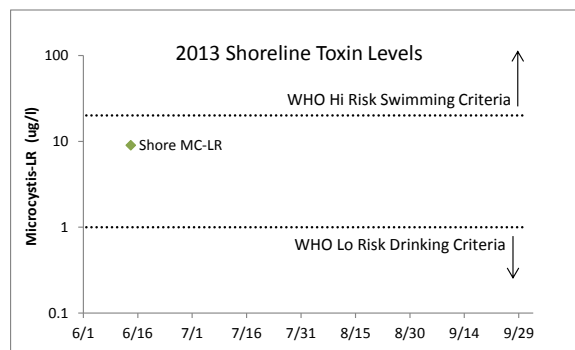
**Figure D1b:**  
2013 Open Water Total and BGA Chl.a-South



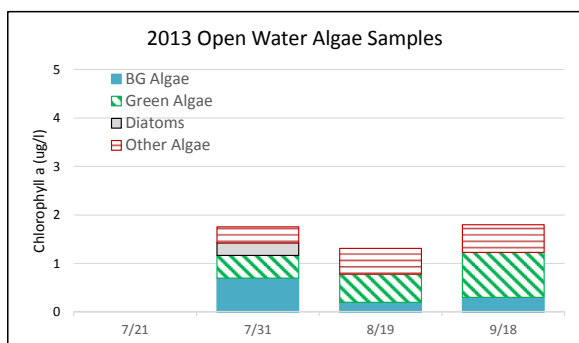
**Figure D2b:**  
2013 Open Water Microcystin-LR-South



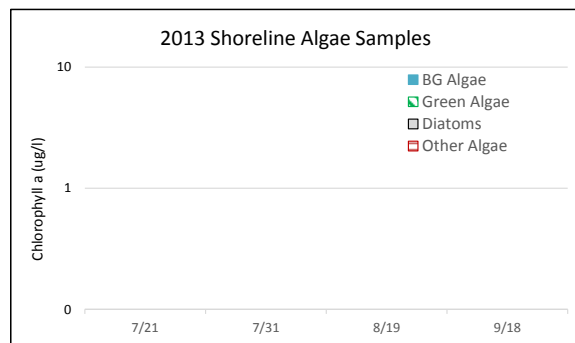
**Figure D3b:**  
2013 Shoreline Total and BGA Chl.a-South



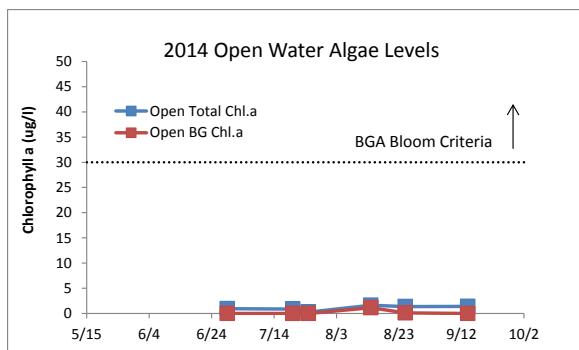
**Figure D4b:**  
2013 Shoreline Microcystin-LR-South



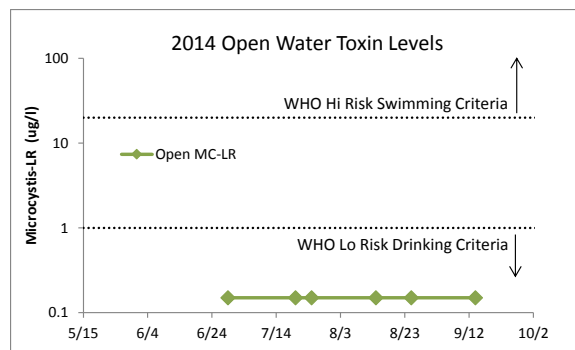
**Figure D5b:**  
2013 Open Water Algae Types-South



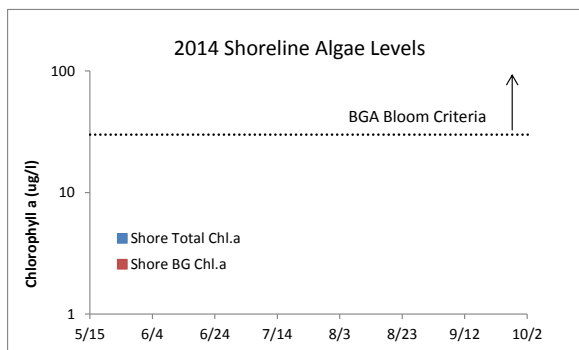
**Figure D6b:**  
2013 Shoreline Algae Types-South



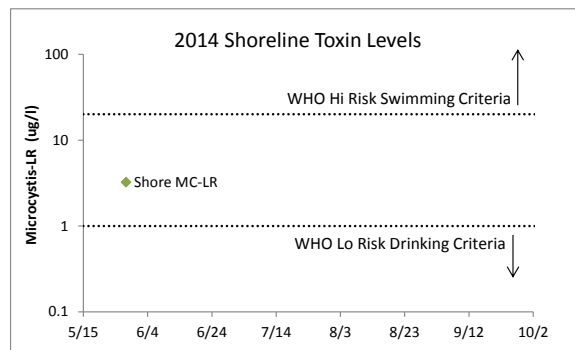
**Figure D7:**  
2014 Open Water Total and BGA Chl.a-North



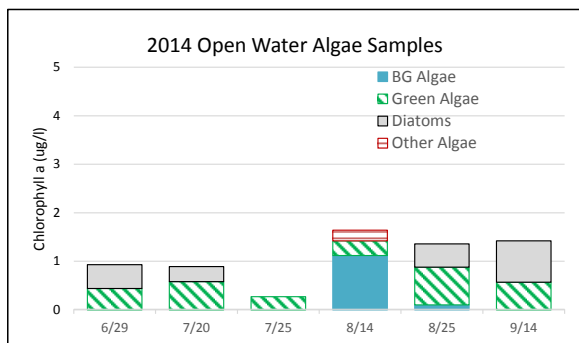
**Figure D8:**  
2014 Open Water Microcystin-LR-North



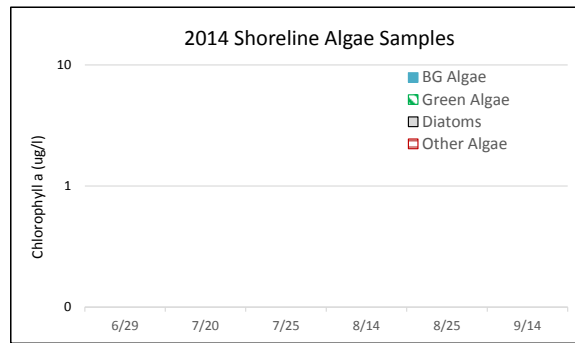
**Figure D9:**  
2014 Shoreline Total and BGA Chl.a-North



**Figure D10:**  
2014 Shoreline Microcystin-LR-North



**Figure D11:**  
2013 Open Water Algae Types-North



**Figure D12:**  
2014 Shoreline Algae Types-North

## Appendix E: AIS Species in Essex and Warren County

The table below shows the invasive aquatic plants and animals that have been documented in Essex and Warren County, as cited in either the iMapInvasives database (<http://www.imapinvasives.org/>) or in the NYSDEC Division of Water database. These databases may include some, but not all, non-native plants or animals that have not been identified as “Prohibited and Regulated Invasive Species” in New York state regulations (6 NYCRR Part 575; [http://www.dec.ny.gov/docs/lands\\_forests\\_pdf/islist.pdf](http://www.dec.ny.gov/docs/lands_forests_pdf/islist.pdf)).

This list is not complete, but instead represents only those species that have been reported and verified within the county. If any additional aquatic invasive species (AIS) are known or suspected in these or other waterbodies in the county, this information should be reported through iMap invasives or by contacting NYSDEC at [dowinfo@dec.ny.gov](mailto:dowinfo@dec.ny.gov).

Aquatic Invasive Species – Essex and Warren County			
Waterbody	Kingdom	Common name	Scientific name
Augur Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Bartlett Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Brant Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Brant Lake	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Butternut Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Chapel Pond	Animal	Allegheny crayfish	<i>Orconectes obscurus</i>
Crandall Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Daggett Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Eagle Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Franklin Falls Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Franklin Falls Pond	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Friends Lake	Animal	Banded mystery snail	<i>Viviparus georgianus</i>
Glen Lake	Animal	Zebra mussel	<i>Dreissena polymorpha</i>
Glen Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Glen Lake	Plant	Brittle naiad	<i>Najas minor</i>
Glen Lake	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Goodnow Flowage	Plant	Brittle naiad	<i>Najas minor</i>
Highlands Forge Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Hovey Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Lake Champlain	Animal	Spiny waterflea	<i>Bythotrephes longimanus</i>
Lake Champlain	Animal	Zebra mussel	<i>Dreissena polymorpha</i>
Lake Champlain	Plant	Variable watermilfoil	<i>Myriophyllum heterophyllum</i>
Lake Champlain	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Lake Champlain	Plant	Water chestnut	<i>Trapa natans</i>

<b>Waterbody</b>	<b>Kingdom</b>	<b>Common name</b>	<b>Scientific name</b>
Lake Eaton	Plant	European frogbit	<i>Hydrocharis morsus-ranae</i>
Lake Flower	Plant	Variable watermilfoil	<i>Myriophyllum heterophyllum</i>
Lake George	Animal	Zebra mussel	<i>Dreissena polymorpha</i>
Lake George	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Lake George	Animal	Virile crayfish	<i>Orconectes virilis</i>
Lake George	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Lake George	Animal	Spiny waterflea	<i>Bythotrephes longimanus</i>
Lake George	Animal	Asian clam	<i>Corbicula fluminea</i>
Lake George	Animal	Zebra mussel	<i>Dreissena polymorpha</i>
Lake George	Plant	Brittle naiad	<i>Najas minor</i>
Lake Luzerne	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Lake Luzerne	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Lake Placid	Plant	Variable watermilfoil	<i>Myriophyllum heterophyllum</i>
Lake Sunnyside	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Lincoln Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Long Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Long Pond	Animal	Allegheny crayfish	<i>Orconectes obscurus</i>
Loon Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Minerva Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Mirror Lake	Plant	Broadleaf Water-milfoil	<i>Myriophyllum heterophyllum</i>
Mirror Lake	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Nichols Pond	Animal	Allegheny crayfish	<i>Orconectes obscurus</i>
North Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
North Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Oseetah Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Paradox Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Paradox Lake	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Penfield Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Putnam Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Rogers Pond	Plant	European frogbit	<i>Hydrocharis morsus-ranae</i>
Schroon Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Schroon Lake	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Schroon Lake	Animal	Rudd	<i>Scardinius erythrophthalmus</i>
Trout Lake	Animal	Rusty crayfish	<i>Orconectes rusticus</i>
Webb Royce Swamp	Plant	European frogbit	<i>Hydrocharis morsus-ranae</i>
Woodruff Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>



## Appendix F: Watershed and Land Use Map for Schroon Lake

This watershed and land use map was developed using USGS StreamStats and ESRI ArcGIS using the 2006 land use satellite imagery. The actual watershed map and present land uses within this watershed may be slightly different due to the age of the underlying data and some limits to the use of these tools in some geographic regions and under varying flow conditions. However, these maps are intended to show the approximate extent of the lake drainage basin and the major land uses found within the boundaries of the basin.

