

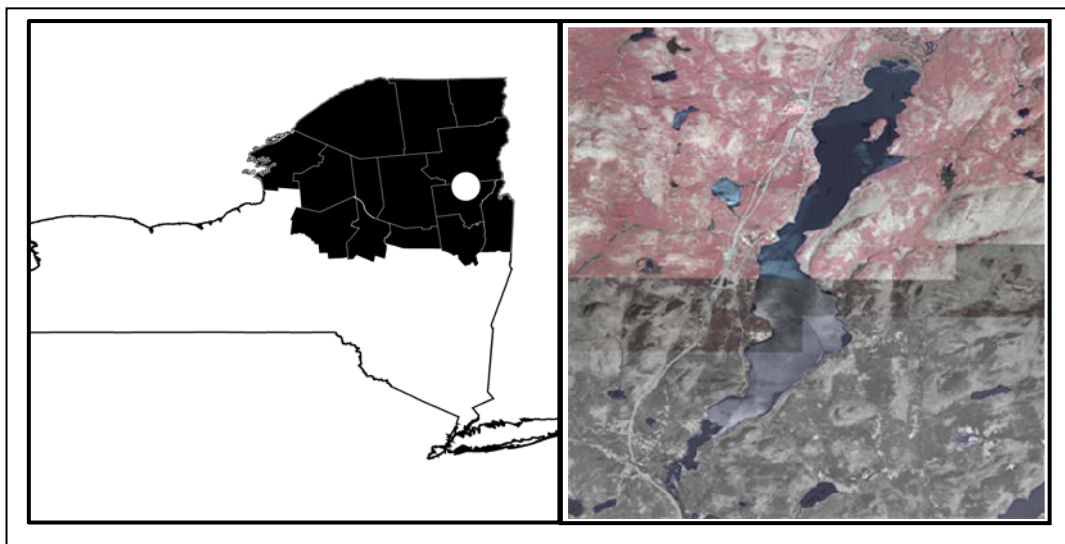
## Appendix A: CSLAP 2009 Lake Water Quality Summary: Schroon Lake

### General Lake Information

<b>Location</b>	town of Schroon Lake
<b>County</b>	Essex
<b>Basin</b>	Upper Hudson River
<b>Size</b>	1670.6 hectares (4126.4 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, 1997-2009
<b>2009 Samplers</b>	Chuck and Nancy Harste, Kevin Nessler, Bill and Joanne McGhie, Vince Blando, Rory Baxter, Marion Luce, Carl and Audrey Halverson, Carol and Steve Fahey, Barbara and Bob Colegrove, Jane and Thad Smith, Ted Naumowitz, and Charles Jelinek
<b>Main Contact</b>	Helen Wildman

### Lake Map

(sampling location marked with a circle)



## 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 9 CSLAP lakes among the >270 lakes found in Essex County, one of 12 CSLAP lakes among the 120 lakes in Warren County, and one of 24 CSLAP lakes among the >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 6.5” lake trout and about 3,000 7” 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” and a daily take limit of 3. There is a daily limit of 2 lake trout and a minimum size of 18”. For trout, there is a daily take limit of 5, 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” in length, yellow perch > 13”, or smallmouth bass of any size, the NYS Department of Health recommends no more than a single meal per month.

## Historical Water Quality Data

CSLAP sampling was conducted on Schroon Lake from 1987-1995, and 1997-2009. The CSLAP reports for Schroon Lake for the last few years can be found on the NYSFOLA website at [www.nysfola.org](http://www.nysfola.org), under NYS Lake Association Lake List.

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’s 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 40-60 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 sampled 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 Schroon Lake Association. The former was founded in 1911, and oversees 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

The Schroon Lake Association maintains a website at <http://www.schroonlakeassociation.com>.

## Summary of 2009 CSLAP Sampling Results

### Evaluation of Eutrophication Indicators

Water clarity was lower than normal in the north basin, consistent with higher than normal total phosphorus readings. The latter seems to be part of a longer-term trend—total phosphorus readings have been higher than normal in the last five years. However, both chlorophyll *a* and total phosphorus were lower than normal in 2009 in the south basin, and neither of these indicators has exhibited significant long-term trends. This suggests that the small changes in these indicators have been indicative of normal variability, phosphorus loading to the lake, particularly in the north basin, should continue to be evaluated. 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 TSI evaluation suggests that each of these trophic indicators are “internally consistent”—each of these indicators are in the expected range given the readings of the other indicators. 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 higher chlorophyll *a* readings usually measured in the north basin.

## **Evaluation of Potable Water Indicators**

Algae levels are 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 readings in the north basin of Schroon Lake are higher than those measured at the lake surface, although hypolimnetic ammonia readings in both basins are low and similar to those at the lake surface. This suggests that deepwater intakes may be somewhat compromised for any deep potable water use. Deepwater iron, manganese and arsenic results from 2009 have not been received at the time of the writing of this report.

## **Evaluation of Limnological Indicators**

A few of the CSLAP water quality indicators varied from normal readings in 2009. At sampling sites, ammonia and total nitrogen readings were lower than normal in 2009, while NO<sub>x</sub>, pH, and conductivity were also lower than normal in the north basin. Water color readings in both basins and calcium readings in the north basin were higher than normal in 2009. The rise in color was apparent in many Adirondack region lakes, and may be due to a combination of wetter weather and the change in labs in 2002. This has not translated into a decrease in water clarity over the same period. Overall limnological conditions for both basins are summarized in the Lake Scorecard. Limnological conditions were mostly comparable in both basins of the lake.

## **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 twenty 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 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.

Phytoplankton, 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.

## **Evaluation of Lake Perception**

Water quality and recreational assessments in Schroon Lake were more favorable than normal in 2009, despite lower clarity in the north basin (and consistent with lower algae levels in the south basin). Aquatic plant coverage was slightly more extensive in the areas evaluated in the south basin, but this did not appear to adversely affect recreational assessments. None of these indicators of lake perception has exhibited any significant long-term changes. Overall lake

perception is summarized on the Lake Scorecard. Lake perception was comparable at both sampling sites.

## Evaluation of Local Climate Change

Water and air temperature readings in the summer index period were close to normal in 2009 at both sampling sites, although it is not yet known if temperature readings have exhibited any long-term change. However, it is not likely that any of the small changes in air or water temperature readings are indicative of local climate change in the lake.

## Lake Scorecard- North Basin

Category	Indicator	Classification	2009 Change?	Long Term Change?
<b>Eutrophication Indicators</b>	Water Clarity	Mesotrophic	Lower than normal	No
	Chlorophyll <i>a</i>	Mesotrophic	No	No
	Total Phosphorus	Oligotrophic	Higher than normal	Increasing
<b>Potable Water Indicators</b>	Hypolimnetic Ammonia	Similar to Surface NH <sub>4</sub>		
	Hypolimnetic Arsenic			
	Hypolimnetic Iron			
	Hypolimnetic Manganese			
<b>Limnological Indicators</b>	Hypolimnetic Phosphorus	Higher than Surface TP		
	Nitrate + Nitrite	Low NO <sub>x</sub>		
	Ammonia	Low Ammonia		
	Total Nitrogen	Low Total Nitrogen		
	pH	Circumneutral		
	Specific Conductance	Softwater		
	True Color	Intermediate Color		
	Calcium	Not Susceptible to Zebra Mussels		
<b>Lake Perception</b>	WQ Assessment	Not Quite Crystal Clear	More favorable	No
	Aquatic Plant Coverage	Plants Not Visible	No	No
	Recreational Assessment	Could Not Be Nicer	More favorable	No
<b>Biological Condition</b>	Phytoplankton	Not evaluated through CSLAP	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	Eurasian watermilfoil	Not known	Not known
<b>Local Climate Change</b>	Air Temperature		No	No
	Water Temperature		No	No

## Lake Scorecard- South Basin

Category	Indicator	Classification	2009 Change?	Long Term Change?
<b>Eutrophication Indicators</b>	Water Clarity	Mesotrophic	No	No
	Chlorophyll <i>a</i>	Oligotrophic	Lower than normal	No
	Total Phosphorus	Oligotrophic	Lower than normal	No
<b>Potable Water Indicators</b>	Hypolimnetic Ammonia	Similar to Surface NH4		
	Hypolimnetic Arsenic			
	Hypolimnetic Iron			
	Hypolimnetic Manganese			
<b>Limnological Indicators</b>	Hypolimnetic Phosphorus	Similar to Surface TP		
	Nitrate + Nitrite	Low NOx		
	Ammonia	Low Ammonia		
	Total Nitrogen	Low Total Nitrogen		
	pH	Alkaline		
	Specific Conductance	Softwater		
	True Color	Intermediate Color		
	Calcium	Not Susceptible to Zebra Mussels		
<b>Lake Perception</b>	WQ Assessment	Crystal Clear	More favorable	No
	Aquatic Plant Coverage	Subsurface Plant Growth	Greater coverage	No
	Recreational Assessment	Excellent	More favorable	No
<b>Biological Condition</b>	Phytoplankton	Not evaluated through CSLAP	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	Eurasian watermilfoil	Not known	Not known
<b>Local Climate Change</b>	Air Temperature		No	No
	Water Temperature		No	No

## **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 C.

### **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.

### **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, although 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 may be threatened by the presence of Eurasian watermilfoil.

### **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 stressed by deepwater hypoxia. 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.

### **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 > 13", or smallmouth bass of any size.

## **Additional Comments and Recommendations**

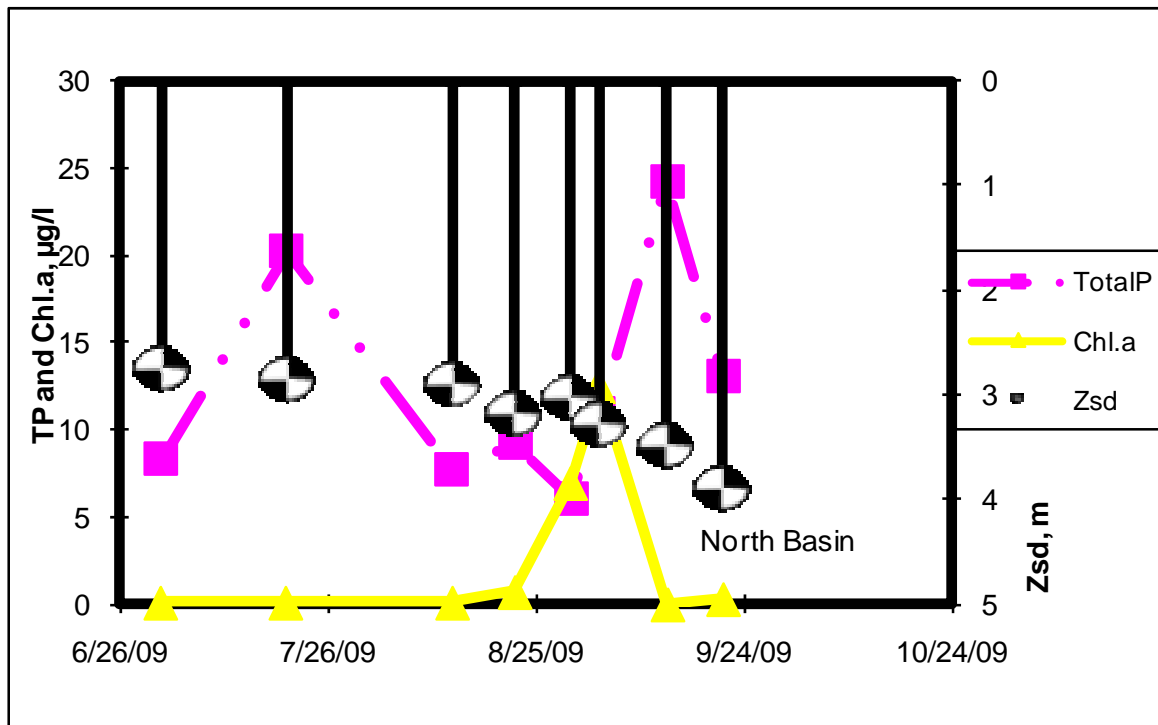
It is not known if Eurasian watermilfoil populations in the lake have significantly affected the biological integrity of the lake.

### **Aquatic Plant IDs-2009**

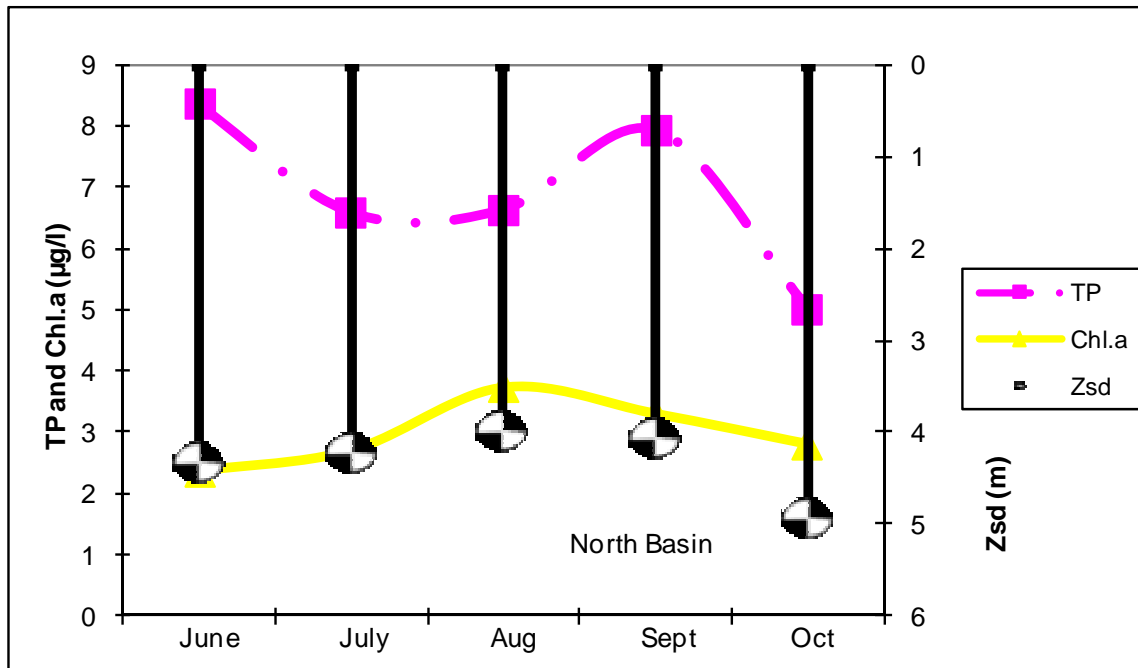
None submitted for identification.



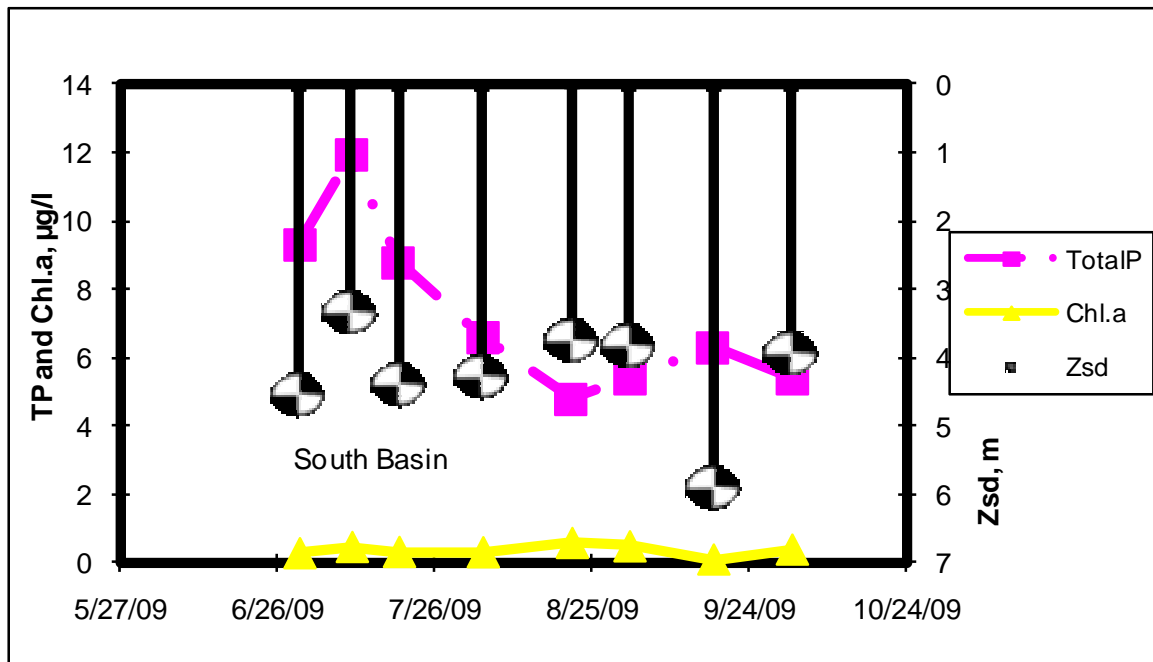
### Time Series: Trophic Indicators, 2009- North Basin



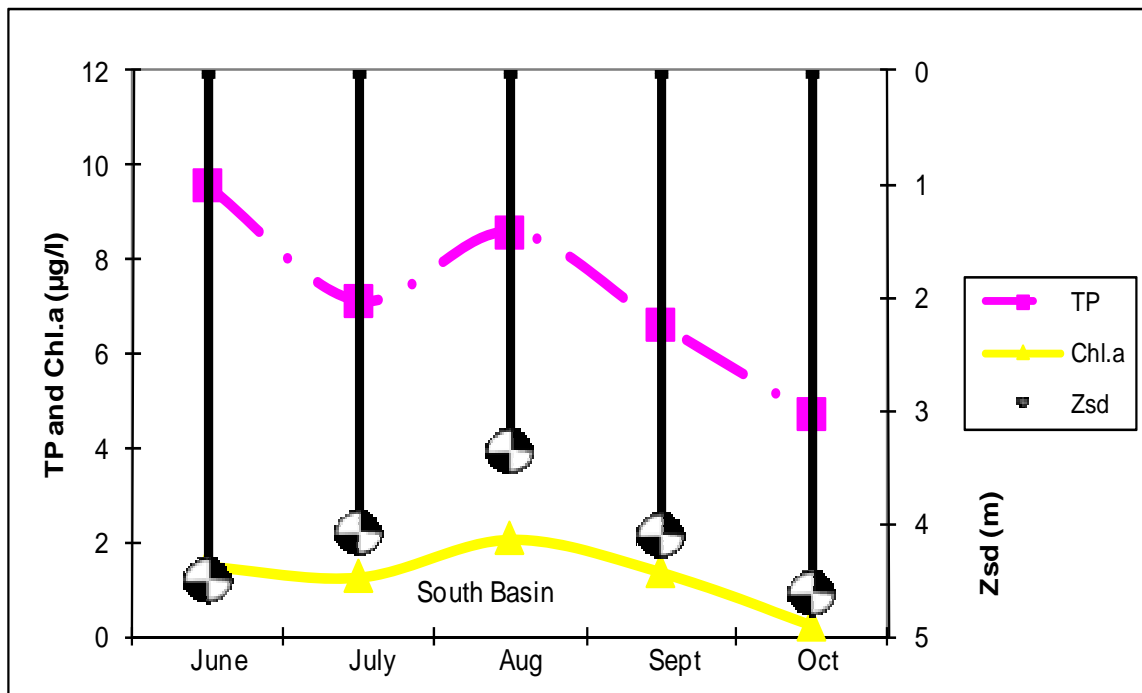
### Time Series: Trophic Indicators, Typical Year (1987-2009)-North Basin



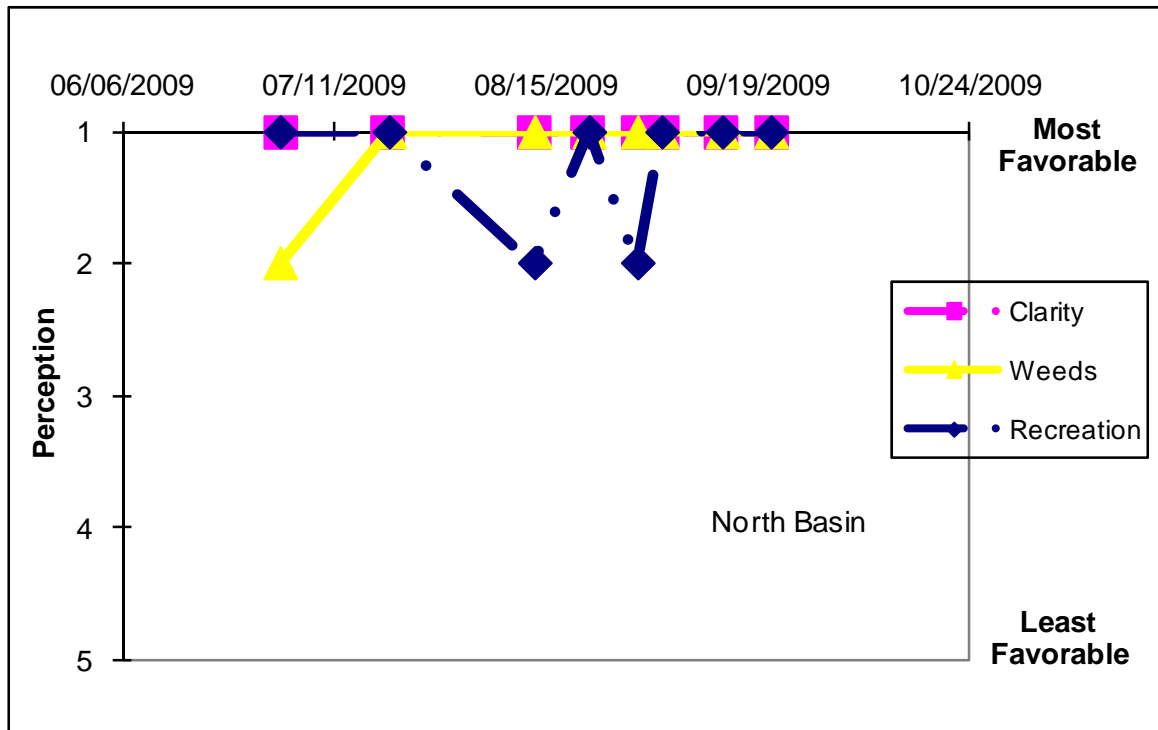
### Time Series: Trophic Indicators, 2009- South Basin



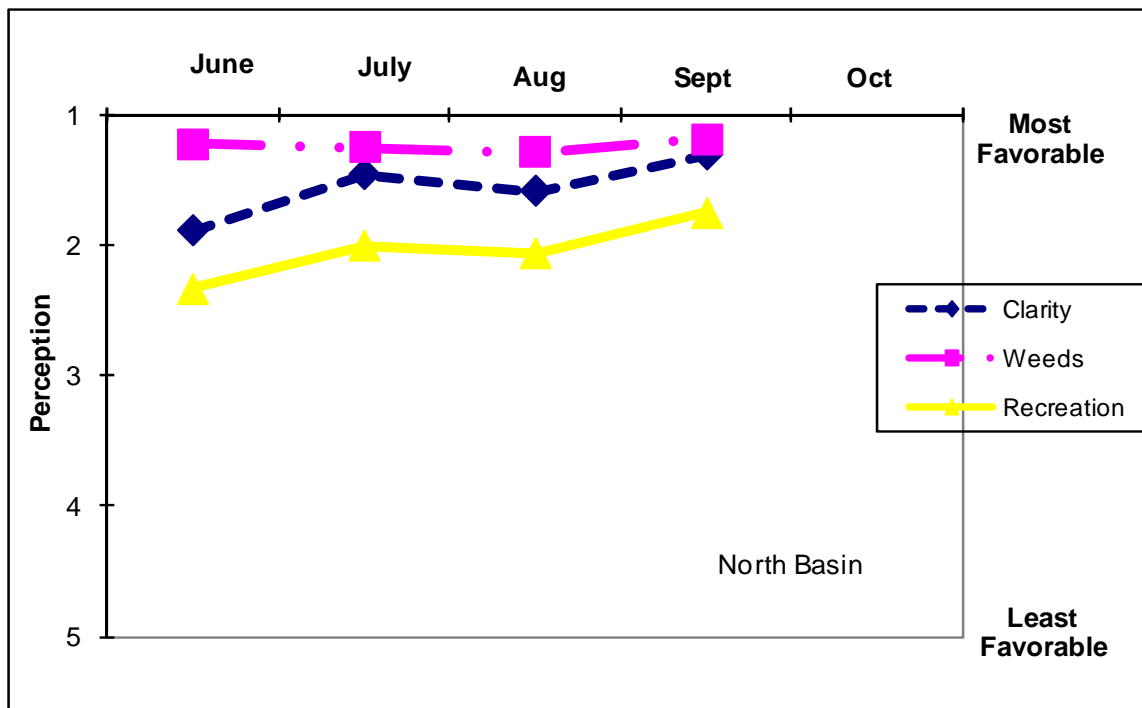
### Time Series: Trophic Indicators, Typical Year (1987-2009)- South Basin



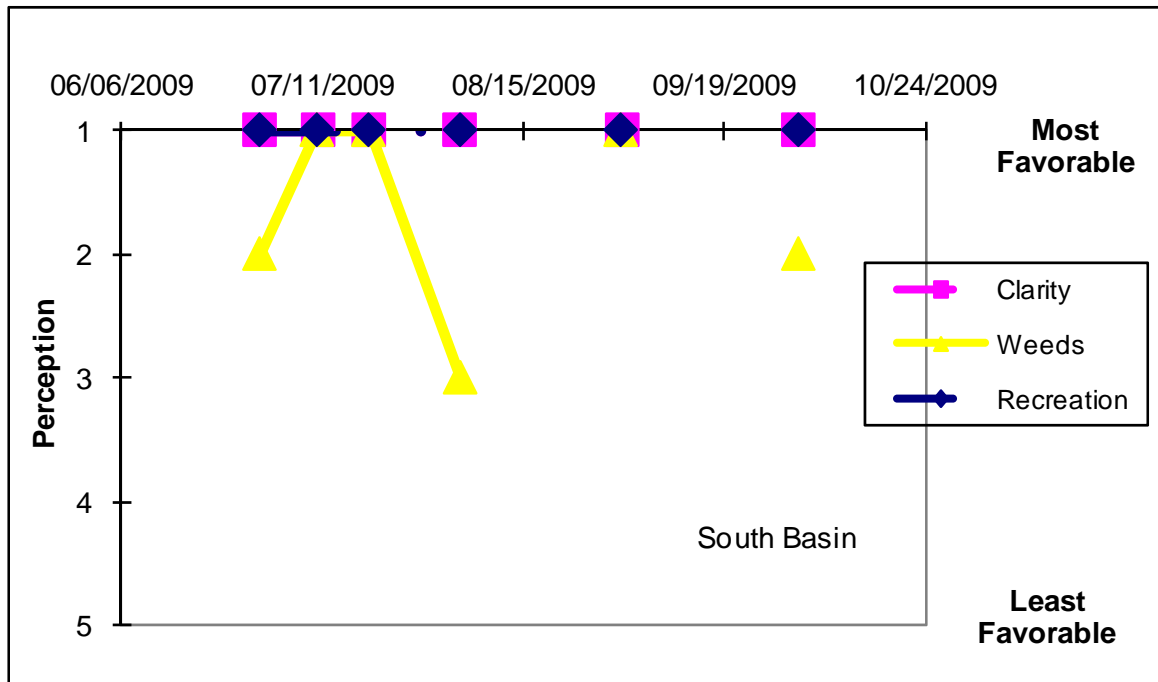
### Time Series: Lake Perception Indicators, 2009-North Basin



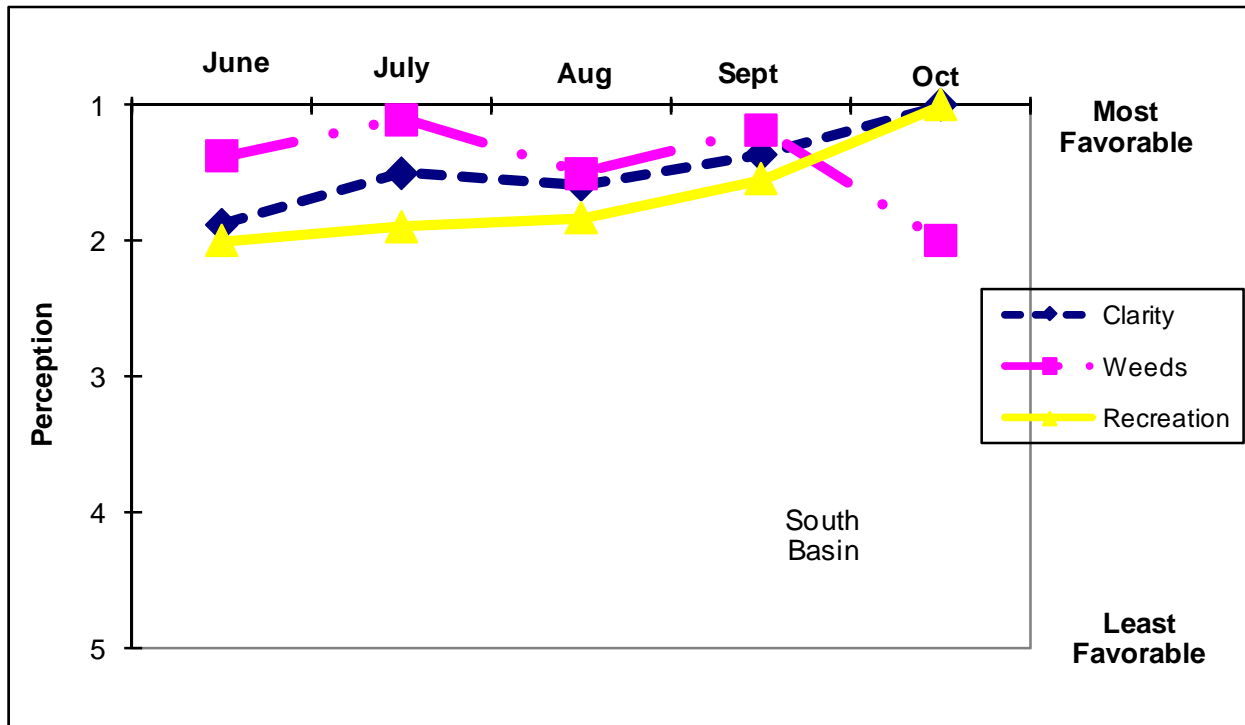
### Time Series: Lake Perception Indicators, Typical Year (1987-2009)-North Basin



### Time Series: Lake Perception Indicators, 2009-South Basin



### Time Series: Lake Perception Indicators, Typical Year (1987-2009)-South Basin



## Appendix B- 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	6/23/1987	2.0		1.5	0.005	0.14				16	7.33	62		4.70
34	Schroon L	7/1/1987	20.0	3.00	1.5	0.006	0.15				16	7.58	60		5.80
34	Schroon L	7/8/1987	21.0	4.00	1.5	0.006	0.12				14	7.09	60		4.40
34	Schroon L	7/13/1987	21.0	3.00	1.5	0.005	0.10				16	6.91	61		4.00
34	Schroon L	7/21/1987	20.0	4.00	1.5	0.001	0.09				16	7.23	62		7.60
34	Schroon L	7/27/1987	20.0	4.00	1.5	0.009	0.06				15	7.51	62		5.60
34	Schroon L	8/4/1987	20.0	4.00	1.5	0.005	0.06				17	7.87	64		6.20
34	Schroon L	8/7/1987	45.0	4.15	1.5	0.009	0.03				11	7.02	63		8.70
34	Schroon L	8/14/1987	23.7	3.50	1.5	0.007	0.03				17	7.26	64		6.10
34	Schroon L	8/17/1987	23.0	3.35	1.5	0.005	0.02				12	7.63	64		4.70
34	Schroon L	8/24/1987	23.0	3.15	1.5	0.005	0.02				10	7.52	66		10.10
34	Schroon L	8/30/1987	25.0	4.25	1.5	0.005	0.02				9	7.36	62		
34	Schroon L	9/9/1987	24.0	3.83	1.5	0.006	0.08				8	7.48	71		9.70
34	Schroon L	9/14/1987	23.5	5.35	1.5	0.003	0.01				6	7.17	69		5.30
34	Schroon L	9/22/1987	23.0	5.10	1.5	0.007	0.03				11	7.34	68		3.50
34	Schroon L	7/6/1988	22.5	4.30	1.5	0.004	0.11				15	7.75	80		3.63
34	Schroon L	7/20/1988	25.0	5.25	1.5	0.004	0.08				6	7.93	76		2.15
34	Schroon L	8/4/1988	25.0	5.05	1.5	0.004	0.05				5	7.92	70		2.15
34	Schroon L	8/16/1988	25.0	4.50	1.5	0.001	0.02				7	7.69	65		2.96
34	Schroon L	8/31/1988	25.0	5.20	1.5	0.006	0.02				7	7.79	70		2.15
34	Schroon L	9/12/1988	25.0	5.45	1.5	0.005	0.02				7	7.72	72		3.77
34	Schroon L	9/26/1988	18.0	5.75	1.5	0.003	0.02				7	7.58	71		3.03
34	Schroon L	6/27/1989	23.0	4.90	1.5	0.006	0.08				15	7.68	64		2.64
34	Schroon L	7/5/1989	24.0	4.60	1.5	0.003	0.07				17	7.77	64		2.55
34	Schroon L	7/17/1989	20.0	4.25	1.5	0.008	0.06				17	7.42	64		2.11
34	Schroon L	7/31/1989	18.3	4.85	1.5	0.005	0.03				12	7.58	71		4.31
34	Schroon L	8/14/1989	24.4	3.65	1.5	0.003	0.01				13	7.41	69		4.23
34	Schroon L	8/29/1989	18.3	3.10	1.5	0.004	0.01				10	7.58	70		4.03
34	Schroon L	9/11/1989	25.0	3.55	1.5	0.007	0.01				9	7.44	71		3.70
34	Schroon L	9/25/1989	25.0	3.75	1.5	0.006	0.01				16	7.62	67		4.33
34	Schroon L	7/2/1990	24.0	4.20	1.5	0.009	0.10				15	7.37	62		4.12
34	Schroon L	7/19/1990	25.0	4.70	1.5	0.004	0.06				15	7.61	65		3.69
34	Schroon L	7/30/1990	25.0	5.10	1.5	0.004	0.06				14		70		0.69
34	Schroon L	8/15/1990	25.0	4.00	1.5	0.005	0.04				16	7.70	64		7.29
34	Schroon L	9/4/1990	25.0	5.60	1.5	0.003	0.04				18	7.01	64		2.56
34	Schroon L	9/17/1990	25.0	3.80	1.5	0.005	0.04				19	7.36	67		8.00
34	Schroon L	10/1/1990	25.0	4.95	1.5	0.005	0.08				18	6.73	66		2.81
34	Schroon L	7/9/1991	25.0	6.50	1.5	0.003	0.10				15	7.60	66		2.17
34	Schroon L	7/22/1991	25.0	5.72	1.5	0.005	0.07				10	7.04	88		1.89
34	Schroon L	8/6/1991	25.0	5.80	1.5	0.009	0.03				14	7.08	69		3.67
34	Schroon L	8/19/1991	20.0	4.30	1.5	0.005	0.01				9	7.65	69		4.42
34	Schroon L	9/3/1991	25.0	3.90	1.5	0.009	0.01				11	7.64	69		4.20
34	Schroon L	9/16/1991	25.0	3.70	1.5	0.010	0.01				9	7.60	69		3.11
34	Schroon L	7/20/1997		4.00	1.5	0.008	0.05				10	7.51	68		3.48
34	Schroon L	8/3/1997	9.3	5.05	1.5	0.004	0.02				9	7.53	69		3.03
34	Schroon L	9/8/1997		2.80	1.5	0.006	0.01				7	6.89	72		2.50
34	Schroon L	6/10/2002	43.6	3.05	1.0		0.10	0.02	1.01		14	7.25	73		0.95
34	Schroon L	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	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	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	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	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	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	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
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



LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a
34	Schroon L-N	9/13/2005			25.0	0.034									
34	Schroon L-N	9/27/2005			25.0										
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							
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							
34	Schroon L-N	09/21/2009	50.3		43.0	0.031									

LNum	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
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

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a
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	6/24/2003			30.5	0.004	0.16	0.02	0.15	36.88	6	6.96	147		
34.1	Schroon L-S	7/8/2003			30.5	0.004	0.17	0.02	0.36	96.23					1.41
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	7/5/2005													
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	7/27/2006	34.1		30.5										
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									
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							
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							
34.1	Schroon L-S	10/02/2009	35.7			0.008									

LNum	PName	Date	Zbot	Zsd	Zsamp	QaQc	TAir	TH20	QA	QB	QC	QD
34	Schroon L	6/23/1987	2.0		1.5	1	25	20				
34	Schroon L	7/1/1987	20.0	3.00	1.5	1	18	20				
34	Schroon L	7/8/1987	21.0	4.00	1.5	1	20	20				
34	Schroon L	7/13/1987	21.0	3.00	1.5	1	24	25				
34	Schroon L	7/21/1987	20.0	4.00	1.5	1	20	22				
34	Schroon L	7/27/1987	20.0	4.00	1.5	1	23	23				
34	Schroon L	8/4/1987	20.0	4.00	1.5	1	25	22				
34	Schroon L	8/7/1987	45.0	4.15	1.5	1	24	22				



LNum	PName	Date	Zbot	Zsd	Zsamp	QaQc	TAir	TH2O	QA	QB	QC	QD
34	Schroon L	8/14/1987	23.7	3.50	1.5	1	25	23				
34	Schroon L	8/17/1987	23.0	3.35	1.5	1	25	23				
34	Schroon L	8/24/1987	23.0	3.15	1.5	1	19	20				
34	Schroon L	8/30/1987	25.0	4.25	1.5	1	20	19				
34	Schroon L	9/9/1987	24.0	3.83	1.5	1	20	19				
34	Schroon L	9/14/1987	23.5	5.35	1.5	1	17	18				
34	Schroon L	9/22/1987	23.0	5.10	1.5	1	18	15				
34	Schroon L	7/6/1988	22.5	4.30	1.5	1	27	26				
34	Schroon L	7/20/1988	25.0	5.25	1.5	1	24	26				
34	Schroon L	8/4/1988	25.0	5.05	1.5	1	28	27				
34	Schroon L	8/16/1988	25.0	4.50	1.5	1	21	25				
34	Schroon L	8/31/1988	25.0	5.20	1.5	1	23	20				
34	Schroon L	9/12/1988	25.0	5.45	1.5	1	16	19				
34	Schroon L	9/26/1988	18.0	5.75	1.5	1	16	16				
34	Schroon L	6/27/1989	23.0	4.90	1.5	1	22	22				
34	Schroon L	7/5/1989	24.0	4.60	1.5	1	20	20				
34	Schroon L	7/17/1989	20.0	4.25	1.5	1	22	20				
34	Schroon L	7/31/1989	18.3	4.85	1.5	1	24	22				
34	Schroon L	8/14/1989	24.4	3.65	1.5	1	23	23				
34	Schroon L	8/29/1989	18.3	3.10	1.5	1	22	20				
34	Schroon L	9/11/1989	25.0	3.55	1.5	1	20	20				
34	Schroon L	9/25/1989	25.0	3.75	1.5	1	10	15				
34	Schroon L	7/2/1990	24.0	4.20	1.5	1	28	24				
34	Schroon L	7/19/1990	25.0	4.70	1.5	1	24	22				
34	Schroon L	7/30/1990	25.0	5.10	1.5	1	26	28				
34	Schroon L	8/15/1990	25.0	4.00	1.5	1	22	23				
34	Schroon L	9/4/1990	25.0	5.60	1.5	1	22	22				
34	Schroon L	9/17/1990	25.0	3.80	1.5	1	10	17				
34	Schroon L	10/1/1990	25.0	4.95	1.5	1	17	14				
34	Schroon L	7/9/1991	25.0	6.50	1.5	1	21	23				
34	Schroon L	7/22/1991	25.0	5.72	1.5	1	24	28				
34	Schroon L	8/6/1991	25.0	5.80	1.5	1	18	23				
34	Schroon L	8/19/1991	20.0	4.30	1.5	1	20	23				
34	Schroon L	9/3/1991	25.0	3.90	1.5	1	20	21				
34	Schroon L	9/16/1991	25.0	3.70	1.5	1	27	27				
34	Schroon L	7/20/1997		4.00	1.5	1	24	23	1	2	1	
34	Schroon L	8/3/1997	9.3	5.05	1.5	1	31	25	1	1	1	
34	Schroon L	9/8/1997		2.80	1.5	1		20	2	2	1	
34	Schroon L	6/10/2002	43.6	3.05	1.0	1	22	21	1	2	1	5
34	Schroon L	6/25/2002	44.2	3.25	1.0	1	28	24	2	2	2	
34	Schroon L	7/9/2002	44.3	4.10	1.0	1	25	23	1	1	2	5
34	Schroon L	7/23/2002	43.6	3.30	2.0	1	25	24	1	1	2	5
34	Schroon L	8/6/2002	42.6	8.50	1.0	1	18	24	1	1	4	5
34	Schroon L	8/20/2002	44.2	3.30		1	26	26	2	2	1	
34	Schroon L	9/3/2002	43.9	3.50		1	27	23.5	2	1	2	5
34	Schroon L	9/17/2002	42.6	4.50	1.0	1	25	21	1	1	1	
34	Schroon L-N	6/24/2003	44.2	3.45	1.0	1	35	23	2	1	1	8
34	Schroon L-N	7/8/2003	42.7	4.15	1.0	1	26	26	1	1	1	
34	Schroon L-N	7/22/2003	44.5	5.54		1	23	23	1	1	1	8
34	Schroon L-N	8/5/2003	43.0	2.75	1.0	1	25	26	2	1	2	5
34	Schroon L-N	8/19/2003	42.7	3.10		1	22	24	1	1	1	
34	Schroon L-N	9/2/2003	43.9	3.40	1.0	1	21		2	1	5	58
34	Schroon L-N	9/17/2003	44.0	3.60	1	1	23	21	1	1	1	
34	Schroon L-N	9/30/2003	45.1	3.88		1	23		1	1	1	5
34	Schroon L-N	6/11/2004		6.75		1	20	20	3	1	3	8
34	Schroon L-N	6/23/2004	44.2	10.00	1.0	1	25	21	2	1	1	0
34	Schroon L-N	7/7/2004	43.9	4.00	1.0	1	21	21	2	1	2	5
34	Schroon L-N	7/21/2004	44.5	4.38		1	27	23	1	1	2	5
34	Schroon L-N	8/4/2004	44.5	4.05	1.0	1	19	23	2	1	3	5
34	Schroon L-N	8/18/2004	43.3	3.85	1.0	1	21	20	2	1	4	5
34	Schroon L-N	9/1/2004	44.8	3.40	1.0	1	20	20	1	1	3	5
34	Schroon L-N	9/14/2004	43.3	4.10	1.0	1	18	18	2	1	2	0
34	Schroon L-N	6/21/2005	46.0	2.80	1.0	1	23	18	2	1	3	0

LNum	PName	Date	Zbot	Zsd	Zsamp	QaQc	TAir	TH2O	QA	QB	QC	QD
34	Schroon L-N	7/5/2005	44.8	2.25	1.0	1	18	23	3	1	4	5
34	Schroon L-N	7/19/2005	44.8	3.10	1.0	1	25	24	2	1	3	5
34	Schroon L-N	8/2/2005	44.0	2.85	1.0	1	22	22	2	1	1	0
34	Schroon L-N	8/16/2005	44.2	2.65	1.0	1	18	22	1	1	2	5
34	Schroon L-N	8/30/2005	44.0	3.90	1.0	1	18	20	2	1	2	5
34	Schroon L-N	9/13/2005	45.0	3.30	1.0	1	21	21	1	1	1	0
34	Schroon L-N	9/27/2005	45.1	4.45	1.0	1	14	18	1	1	1	0
34	Schroon L-N	6/16/2006	44.8	2.75	1.5	1	25	16	2	1	2	5
34	Schroon L-N	6/29/2006	44.2	2.60	1.0	1	19	17	2	1	4	58
34	Schroon L-N	7/27/2006	44.8	2.90	1.0	1	22	22	2	2	3	5
34	Schroon L-N	8/10/2006	44.2	2.70	1.0	1	17	22	2	2	2	5
34	Schroon L-N	8/24/2006	43.3	3.30	1.0	1	12	19	2	2	3	5
34	Schroon L-N	9/7/2006	44.2	3.70	1.0	1	18	18	2	2	3	5
34	Schroon L-N	9/20/2006	44.2	2.85	1.0	1	14	17	2	2	3	5
34	Schroon L-N	6/22/2008	33.0	4.00	1.5	1	16		1	1	4	5
34	Schroon L-N	7/5/2008	30.0	7.10	1.5	1	21	20	1		1	0
34	Schroon L-N	7/21/2008	31.0	5.35	1.5	1	18	22	2	2	3	6
34	Schroon L-N	8/1/2008	32.0	5.55	1.5	1	19	21	1	2	2	0
34	Schroon L-N	8/18/2008		4.35	1.5	1	17	17	2	1	1	0
34	Schroon L-N	8/29/2008	30.5	4.65	1.5	1	18	20	2	2	2	0
34	Schroon L-N	9/16/2008	33.5	4.95	1.5	1	12	18	1	1	1	0
34	Schroon L-N	9/25/2008	32.0	5.40	1.5	1	15	16	1	2	1	0
34	Schroon L-N	07/02/2009		2.75		1	21	22	1	2	1	0
34	Schroon L-N	07/20/2009		2.85		1	25	23	1	1	1	5
34	Schroon L-N	08/13/2009		2.90		1	25		1	1	2	0
34	Schroon L-N	08/22/2009		3.20		1	26		1	1	1	0
34	Schroon L-N	08/30/2009		3.05		1	24	17	1	1	2	0
34	Schroon L-N	09/03/2009		3.30		1	25	23	1	1	1	0
34	Schroon L-N	09/13/2009	44.5	3.50		1	22	22	1	1	1	0
34	Schroon L-N	09/21/2009	50.3	3.90		1	25	21	1	1	1	0
34	Schroon L	6/10/2002	43.6	3.05	30.5	2	22	10				
34	Schroon L	6/25/2002	44.2	3.25	30.5	2	28	12				
34	Schroon L	7/9/2002	44.3	4.10		2	25					
34	Schroon L	7/23/2002	43.6	3.30		2	25					
34	Schroon L	8/6/2002	42.6	8.50	30.5	2	18	10				
34	Schroon L	8/20/2002	44.2	3.30	30.5	2	26	9				
34	Schroon L	9/3/2002	43.9	3.50		2	27	10.0				
34	Schroon L	9/17/2002	42.6	4.50	30.5	2	25	11				
34	Schroon L-N	6/24/2003			30.5	2		9				
34	Schroon L-N	7/8/2003			30.5	2		9				
34	Schroon L-N	7/22/2003			30.5	2		8				
34	Schroon L-N	8/5/2003			43.0	2		8				
34	Schroon L-N	8/19/2003				2		12				
34	Schroon L-N	9/2/2003			30.5	2		7				
34	Schroon L-N	9/17/2003			30.5	2		7				
34	Schroon L-N	9/30/2003			30.5	2		7				
34	Schroon L-N	6/11/2004			44.2	2		7				
34	Schroon L-N	6/23/2004	44.2		30.5	2		6				
34	Schroon L-N	7/7/2004	43.9		30.5	2		7				
34	Schroon L-N	7/21/2004	44.5		30.5	2		7				
34	Schroon L-N	8/4/2004				2						
34	Schroon L-N	8/18/2004				2						
34	Schroon L-N	9/1/2004				2						
34	Schroon L-N	9/14/2004	43.3		30.5	2		5				
34	Schroon L-N	6/21/2005			30.5	2						
34	Schroon L-N	7/5/2005				2						
34	Schroon L-N	7/19/2005			25.0	2		6				
34	Schroon L-N	8/2/2005			25.0	2		5				
34	Schroon L-N	8/16/2005			25.0	2		6				
34	Schroon L-N	8/30/2005			25.0	2		6				
34	Schroon L-N	9/13/2005			25.0	2		7				
34	Schroon L-N	9/27/2005			25.0	2		5				
34	Schroon L-N	6/16/2006	44.8		30.5	2		9				

LNum	PName	Date	Zbot	Zsd	Zsamp	QaQc	TAir	TH2O	QA	QB	QC	QD
34	Schroon L-N	6/29/2006	44.2		30.5	2		8				
34	Schroon L-N	7/27/2006	44.8		30.5	2		5				
34	Schroon L-N	8/10/2006	44.2		30.5	2		5				
34	Schroon L-N	8/24/2006	43.3		30.5	2		5				
34	Schroon L-N	9/7/2006	44.2		30.5	2		5				
34	Schroon L-N	9/20/2006	44.2		30.5	2		5				
34	Schroon L-N	6/22/2008	33.0		33.0	2		3				
34	Schroon L-N	7/5/2008	30.0		30.0	2		5				
34	Schroon L-N	7/21/2008	31.0		30.5	2		5				
34	Schroon L-N	8/1/2008	32.0		30.5	2		5				
34	Schroon L-N	8/18/2008			31.0	2		4				
34	Schroon L-N	8/29/2008	30.5		30.5	2		4				
34	Schroon L-N	9/16/2008	33.5		30.5	2		5				
34	Schroon L-N	9/25/2008	32.0		30.0	2		5				
34	Schroon L-N	07/02/2009			40.0	2						
34	Schroon L-N	07/20/2009			45.0	2		9				
34	Schroon L-N	08/13/2009			39.0	2		11				
34	Schroon L-N	08/22/2009			43.0	2		9				
34	Schroon L-N	08/30/2009			46.0	2						
34	Schroon L-N	09/03/2009			41.5	2		10				
34	Schroon L-N	09/13/2009	44.5		42.0	2		10				
34	Schroon L-N	09/21/2009	50.3		43.0	2		9				
34.1	Schroon L-S	6/24/2003	35.7	3.95	1.0	11	36	24	2	1	1	8
34.1	Schroon L-S	7/8/2003	36.6	4.85	1.0	11	27	25	1	1	1	
34.1	Schroon L-S	7/22/2003	34.0	6.14		11	23	23	1	1	1	8
34.1	Schroon L-S	8/5/2003	34.0	3.95	1.0	11	26	24	2	1	2	5
34.1	Schroon L-S	8/19/2003	36.6	3.30	1.0	11	22	24	1	1	1	
34.1	Schroon L-S	9/2/2003	32.6	4.60	1.0	11	18	21	2	1	2	5
34.1	Schroon L-S	9/17/2003	35.0	4.95	1.0	11	23	21	1	1	1	
34.1	Schroon L-S	9/30/2003	35.0	2.83	1.5	11	16		1	1	1	5
34.1	Schroon L-S	6/11/2004		5.00		11	23	19	3	1	3	8
34.1	Schroon L-S	6/23/2004	34.7	9.00	1.0	11	25	21	2	1	1	0
34.1	Schroon L-S	7/7/2004	34.4	4.50	1.0	11	19	21	2	1	2	5
34.1	Schroon L-S	7/21/2004	34.5	4.00		11	27	23	1	1	2	5
34.1	Schroon L-S	8/4/2004	35.1	3.70	1.0	11	20	24	2	1	3	5
34.1	Schroon L-S	8/18/2004	36.0	2.90	1.0	11	20	20	2	1	4	5
34.1	Schroon L-S	9/1/2004	36.0	4.10	1.0	11	20	21	1	1	2	5
34.1	Schroon L-S	9/14/2004	36.0	5.00	1.0	11	17	17	2	1	1	0
34.1	Schroon L-S	6/21/2005	36.0	3.00	1.0	1	23	19	2	1	3	0
34.1	Schroon L-S	7/5/2005	25.0	2.80	1.0	1	18	22	3	1	4	5
34.1	Schroon L-S	7/19/2005	34.1	3.40	1.0	1	25	24	2	1	3	5
34.1	Schroon L-S	8/2/2005	34.0	3.15	1.0	1	23	22	2	1	1	0
34.1	Schroon L-S	8/16/2005	35.0	3.10	1.0	1	20	22	1	1	2	5
34.1	Schroon L-S	8/30/2005	34.0	4.48	1.0	1	16	20	2	1	2	5
34.1	Schroon L-S	9/13/2005	33.0	3.25	1.0	1	24	21	1	1	1	0
34.1	Schroon L-S	9/27/2005	34.1	4.10	1.0	1	17	17	1	1	1	0
34.1	Schroon L-S	6/16/2006	34.8	3.45	1.0	1	25	17	2	2	2	5
34.1	Schroon L-S	6/28/2006	36.0	3.25	1.0	1	21	18	2	1	4	5
34.1	Schroon L-S	7/27/2006	34.1	3.09	1.0	1	22	22	2	2	3	5
34.1	Schroon L-S	8/10/2006	35.1	3.00	1.0	1	18	22	2	2	1	5
34.1	Schroon L-S	8/24/2006	36.0	3.15	1.0	1	13	19	2	2	3	5
34.1	Schroon L-S	9/7/2006	36.0	3.15	1.0	1	18	18	2	2	3	5
34.1	Schroon L-S	9/20/2006	36.0	3.00	1.0	1	13	16	2	2	3	5
34.1	Schroon L-S	6/22/2008	33.0	3.90	1.5	1	16	21	1	2	1	0
34.1	Schroon L-S	7/23/2008	43.0	4.45	1.5	1	21	23	1	1	1	5
34.1	Schroon L-S	8/18/2008	33.0	2.30	1.5	1	24	24	1	1	1	15
34.1	Schroon L-S	8/27/2008	33.0	2.85		1	28	23	1	3	1	0
34.1	Schroon L-S	9/15/2008				1						
34.1	Schroon L-S	9/20/2008	33.0	4.40		1	24	21	1	1	1	0
34.1	Schroon L-S	9/23/2008	44.0	4.23		1	24	22				
34.1	Schroon L-S	10/7/2008		5.30	1.5	1	6	12	1	2	1	8
34.1	Schroon L-S	06/30/2009	25.0	4.55		2	16	19	1	3	1	0
34.1	Schroon L-S	07/10/2009	37.0	3.36	1.5	2	26	19	1	3	1	0

LNum	PName	Date	Zbot	Zsd	Zsamp	QaQc	TAir	TH2O	QA	QB	QC	QD
34.1	Schroon L-S	07/19/2009	35.7	4.40	1.5	2	19	18	1	3	2	0
34.1	Schroon L-S	08/04/2009	35.7	4.30	1.5	2	21	20	2	3	2	28
34.1	Schroon L-S	08/21/2009	35.7	3.75	1.5	2	23	22	1	3	2	0
34.1	Schroon L-S	09/01/2009	35.7	3.85	1.5	2	7	18	1	3	1	0
34.1	Schroon L-S	09/17/2009	35.7	5.93	1.5	2	13	18	1	3	1	0
34.1	Schroon L-S	10/02/2009	35.7	3.95		2						
34.1	Schroon L-S	6/24/2003			30.5	22		9				
34.1	Schroon L-S	7/8/2003			30.5	22		9				
34.1	Schroon L-S	7/22/2003			30.5	22		7				
34.1	Schroon L-S	8/5/2003			34.0	22		8				
34.1	Schroon L-S	8/19/2003			30.5	22		11				
34.1	Schroon L-S	9/2/2003			30.5	22		8				
34.1	Schroon L-S	9/17/2003			30.5	22		15				
34.1	Schroon L-S	9/30/2003			30.5	22		7				
34.1	Schroon L-S	6/11/2004			34.4	22		8				
34.1	Schroon L-S	6/23/2004	34.7		30.5	22		6				
34.1	Schroon L-S	7/7/2004	34.4		30.5	22		5				
34.1	Schroon L-S	7/21/2004	34.5		30.5	22		6				
34.1	Schroon L-S	8/4/2004	35.1		30.5	22		6				
34.1	Schroon L-S	8/18/2004	36.0		30.5	22		7				
34.1	Schroon L-S	9/1/2004	36.0		30.5	22		6				
34.1	Schroon L-S	9/14/2004	36.0		30.5	22		6				
34.1	Schroon L-S	6/21/2005			30.5	2		6				
34.1	Schroon L-S	7/5/2005				2						
34.1	Schroon L-S	7/19/2005			25.0	2		8				
34.1	Schroon L-S	8/2/2005			25.0	2		6				
34.1	Schroon L-S	8/16/2005			25.0	2		7				
34.1	Schroon L-S	8/30/2005			25.0	2		7				
34.1	Schroon L-S	9/13/2005			25.0	2		8				
34.1	Schroon L-S	9/27/2005			25.0	2		7				
34.1	Schroon L-S	6/16/2006	34.8		30.5	2		6				
34.1	Schroon L-S	6/28/2006	36.0		30.5	2		8				
34.1	Schroon L-S	7/27/2006	34.1		30.5	2		5				
34.1	Schroon L-S	8/10/2006	35.1		30.5	2		5				
34.1	Schroon L-S	8/24/2006	36.0		30.5	2		5				
34.1	Schroon L-S	9/7/2006	36.0		30.5	2		7				
34.1	Schroon L-S	9/20/2006	36.0		30.5	2		5				
34.1	Schroon L-S	6/22/2008	33.0		33.0	2						
34.1	Schroon L-S	7/23/2008	43.0		30.5	2		8				
34.1	Schroon L-S	8/18/2008	33.0		33.0	2		9				
34.1	Schroon L-S	8/27/2008	33.0			2		10				
34.1	Schroon L-S	9/15/2008				2						
34.1	Schroon L-S	9/20/2008	33.0			2		9				
34.1	Schroon L-S	9/23/2008	44.0		33.0	2		8				
34.1	Schroon L-S	10/7/2008			30.5	2		6				
34.1	Schroon L-S	06/30/2009	25.0		34.7	2		6				
34.1	Schroon L-S	07/10/2009	37.0		36.5	2		5				
34.1	Schroon L-S	07/19/2009	35.7		35.0	2		5				
34.1	Schroon L-S	08/04/2009	35.7		35.0	2		5				
34.1	Schroon L-S	08/21/2009	35.7		35.0	2		5				
34.1	Schroon L-S	09/01/2009	35.7		35.0	2		5				
34.1	Schroon L-S	09/17/2009	35.7		35.0	2						
34.1	Schroon L-S	10/02/2009	35.7			2						

## 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)	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	0.3 mg/l (S)
<b>Mn</b>	manganese (mg/l)	0.01 mg/l	0.3 mg/l (S)
<b>As</b>	arsenic (mg/l)	1 ug/l	10 ug/l (S)
<b>Lake Assessment</b>			
<b>QA</b>	water quality assessment, 5 point scale; 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, 5 point scale; 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, 5 point scale; 1 = could not be nicer, 2 = excellent, 3 = slightly impaired, 4 = substantially impaired, 5 = lake not usable		
<b>QD</b>	reasons for recreational assessment, 8 choices; 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		

## Appendix C- PWL 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)

Use(s) Impacted	Severity	Problem Documentation
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.