Hunt Lake Questions and Answers, 2015 CSLAP

Q1. What is the condition of our lake this year?

A1. Water quality conditions in Hunt Lake were probably close to normal in 2015. Measured phosphorus levels were much higher than usual (as in a few other lakes), but none of the other related indicators showed similar changes. Nearly all of the other indicators were close to normal.

Q2. Is there anything new that showed up in the testing this year?

A2. Chloride sampling results were typical of lakes with low to moderate impacts from road salt runoff, and no biological impacts have been reported or measured.

Q3. How does the condition of our lake this year compare with other lakes in the area?

A3. Hunt Lake has similar water clarity, and lower algae and nutrient levels, than a typical lake in the area. Plant coverage is similar to other lakes in the region.

Q4. Are there any trends in our lake's condition?

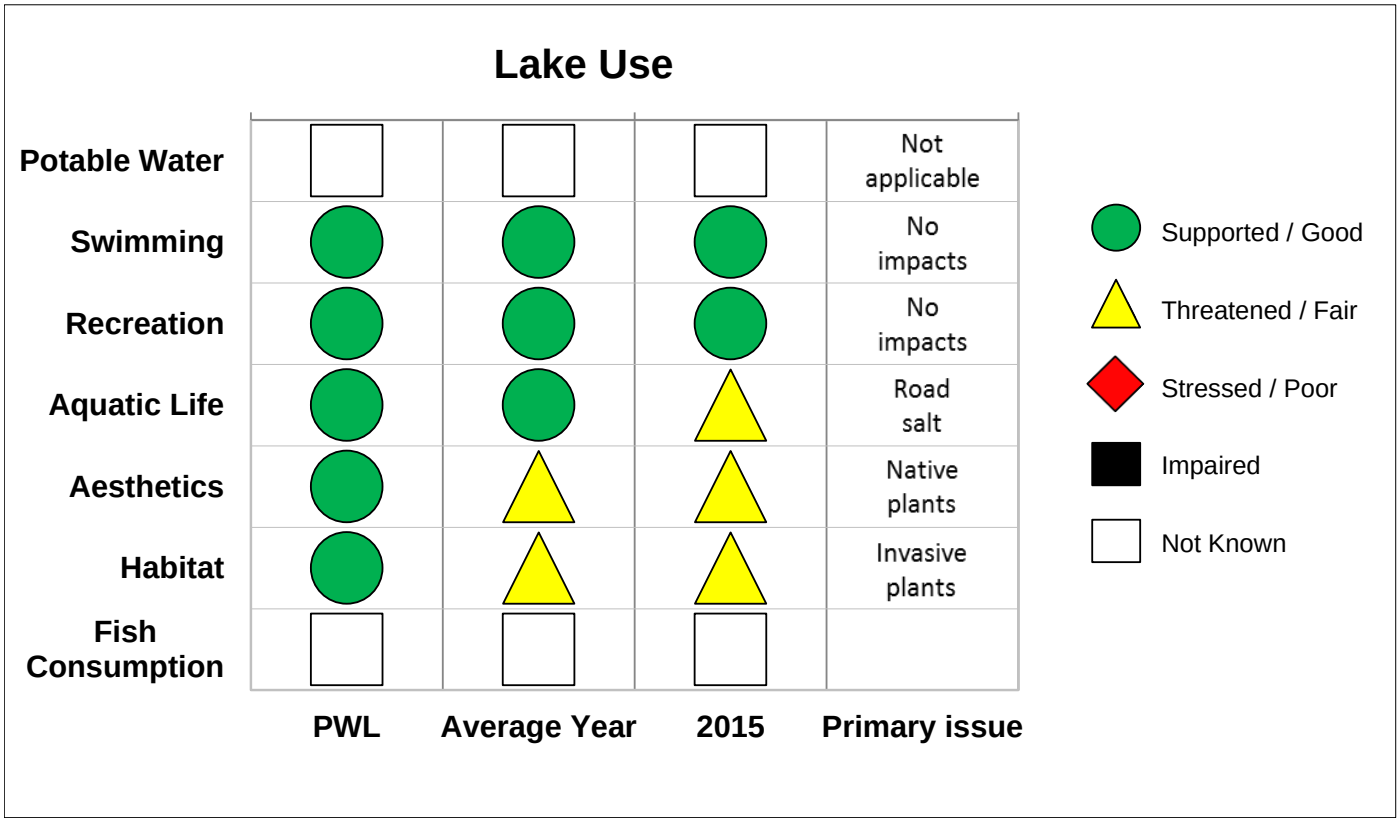
A4. Phosphorus readings have increased while algae levels have decreased over the last 15-20 years. Conductivity and pH readings have also increased over the same period, although no biological changes have been apparent in response to these changes.

Q5. Should we be concerned about the condition of our lake? Are we close to a tipping point?

A5. Hunt Lake does not appear to be susceptible to shoreline blue green algae blooms. Most of the focus in lake management can be related to minimizing nutrient and sediment loading to the lake, and to keep additional invasive species out of the lake. However, the rise in conductivity may represent an increase in sediment loading that should be further evaluated.

Q6. Are any actions indicated, based on the trends and this year's results?

A6. Individual stewardship activities such as pumping your septic system, growing a buffer of native plants next to the water bodies, and reducing erosion from shoreline properties and runoff into the lake will help to maintain highly favorable water quality conditions by reducing nutrient and sediment loading to the lake. Visiting boats (if any are used on the lake) should be inspected to reduce the risk of new invasive species, since nearby lakes harbor several invasive plants not found in the lake

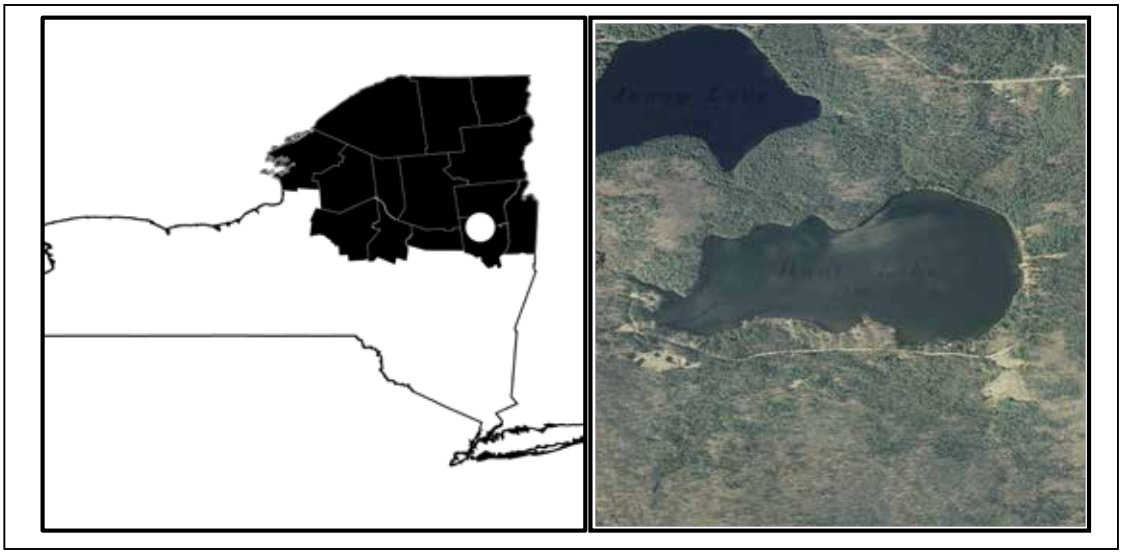


CSLAP 2015 Lake Water Quality Summary:
Hunt Lake

General Lake Information

Location	Town of Corinth
County	Saratoga
Basin	Upper Hudson River
Size	54.4 hectares (134.4 acres)
Lake Origins	Natural
Watershed Area	560 hectares (1,383.2 acres)
Retention Time	1.0 years
Mean Depth	3.68 meters
Sounding Depth	8 meters
Public Access?	no
Major Tributaries	Hunt Brook
Lake Tributary To…	unnamed outlet to Efner Lake to Efner Lake Brook to Black Pond Creek to Daly Creek to Great Sacandaga Lake to Hudson River
WQ Classification	B (contact recreation = swimming)
Lake Outlet Latitude	43.259
Lake Outlet Longitude	-73.914
Sampling Years	1994-1998, 2002-2013, 2015
2015 Samplers	Bob Cady
Main Contact	Bob Cady

Lake Map



Background

Hunt Lake is a 134 acre, class B lake found in the Town of Corinth in Saratoga County, in the southern Adirondack region of New York State. It was first sampled as part of CSLAP in 1994.

It is one of seven CSLAP lakes among the more than 380 lakes and ponds found in Saratoga County, and one of 32 CSLAP lakes among the more than 1370 lakes and ponds in the Upper Hudson River drainage basin.

Lake Uses

Hunt Lake is a Class B lake; this means that the best intended use for the lake is for contact recreation—swimming and bathing, non-contact recreation—fishing and boating, aquatic life, and aesthetics. The lake is used by lake residents and invited guests for swimming and passive boating—the lake has no public access.

It is not known by the report authors if Hunt Lake has been stocked by lake residents or municipal officials.

General statewide fishing regulations are applicable in Hunt Lake. In addition, open season for pickerel runs from the 1st Saturday in May to March 15th, with no size limit and a daily take limit of five fish. The open season on trout runs from April 1st to October 15th, with no size limit but a daily take limit of five fish with no more than five brook trout less than eight inches.

Historical Water Quality Data

CSLAP sampling was conducted on Hunt Lake from 1994 to 1998, 2002 to 2013, and 2015. 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 Hunt Lake can also be found on the NYSDEC web page at http://www.dec.ny.gov/lands/77843.html.

Hunt Lake was sampled by the NYSDEC as part of an ambient lake monitoring program in 1976, and as part of the Conservation Department (predecessor to the NYSDEC) Biological Survey of the Upper Hudson River basin in 1932. The results from 1976 indicate water quality conditions broadly similar to those measured through CSLAP—pH was higher, and nutrient and water clarity readings were lower, but these data are probably within the normal range for the lake. The Biological Survey results from 1932 indicated that the vegetation in the lake was "scant", and dissolved oxygen readings were high from top to bottom. The pH was slightly lower than in CSLAP. Aquatic plant surveys were conducted in 1996, 1999, 2005 and 2009 by Darrin Freshwater Institute.

Neither the primary inlet to the lake, Hunt Brook, nor the outlet of the lake to Jenny Lake has been monitored through the NYSDEC Rotating Intensive Basins (RIBS) program or the state stream macroinvertebrate monitoring program. The lake was not sampled by DEC fisheries staff in support of fish stocking activities or resource management.

Lake Association and Management History

Hunt Lake is represented by the Hunt Lake Improvement Association. It is not known if the lake association is involved in any lake management activities, or if the Hunt Lake Improvement Association maintains a website.

Summary of 2015 CSLAP Sampling Results

Evaluation of 2015 Annual and Monthly Results Relative to 2006-2013

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 – Hunt Lake" section in Appendix D.

Evaluation of Eutrophication Indicators

Phosphorus readings were higher than usual in 2015, but it is likely that these readings are not accurate or representative of 2015 conditions in the lake. These readings are also inconsistent with a decrease in algae levels in 2015. However, phosphorus levels have increased slightly while algae levels have decreased slightly over the last 15-20 years.

Water clarity decreases slightly over the course of a typical summer, consistent with a seasonal increase in algae levels. These water clarity trends also occurred in early summer in 2015, but clarity increased in late summer.

The lake continues to be characterized as *mesoligotrophic*, based on water clarity, chlorophyll *a* (both typical of *mesotrophic* lakes) and total phosphorus readings (typical of *oligotrophic* lakes). The trophic state indices (TSI) evaluation suggests that phosphorus readings were lower than expected given the chlorophyll *a* and Secchi disk transparency readings in the lake (though not in 2015, providing another indication that the 2015 readings are not accurate). These lower-than-expected phosphorus readings are common to other nearby lakes, and for all of these lakes, suggests a high susceptibility for an increase in algae levels if phosphorus loading to the lake increases. Overall trophic conditions are summarized on the Lake Scorecard and Lake Condition Summary Table.

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, but the lake is not classified or use for potable water. Deepwater ammonia and phosphorus readings are similar to those at the lake surface, suggesting that deepwater impacts to any unofficial potable water use do not occur (although deepwater TP levels were also higher than expected and unrepresentative in 2015). 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 and calcium readings were higher than usual in 2015, and conductivity has increased since the mid-2000s. pH and color have also increased over the same timeframe, but were close to normal in 2015. It is likely that the small changes in each of these other indicators from year to year represent normal variability.

Chloride levels in the 2015 samples, collected for the first time through CSLAP and cited in Appendix A, ranged from 15 to 17 mg/l. These values fall within the "moderate" road salt runoff levels cited by the New Hampshire DES. These readings are well below the state potable water quality standard of 250 mg/l and within than the range of values found in most NYS lakes. These readings suggest a moderate likelihood of biological impacts from road salt. Additional data will help to determine if these represent normal readings for the lake.

Overall limnological conditions are summarized in the Lake Scorecard and Lake Condition Summary Table.

Evaluation of Biological Condition

The macrophyte data collected by Darrin Freshwater Institute in 2009 show very high plant diversity, with at least 30 aquatic plant species, although one exotic plant species (*Cabomba caroliniana,* or fanwort) is found in the lake. The modified floristic quality (FQI) indicates that the quality of the aquatic plant community is "excellent."

The fish community in the lake has not been reported.

Phytoplankton, zooplankton, and macroinvertebrate surveys have not been conducted through CSLAP at Hunt Lake. The fluoroprobe screening samples analyzed by SUNY ESF in recent years indicated that both total algae levels and blue green algae levels in the open water are very low, and no shoreline blooms have been reported or sampled. The algal community in the open water samples are comprised primarily of green algae.

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

Evaluation of Lake Perception

Water quality assessments, aquatic plant coverage, and recreational conditions were close to normal in 2013 and 2015. Plant coverage has increased slightly since CSLAP sampling began on the lake, and the lake samplers reported that the plant community is dominated by native pondweeds. Neither water quality assessments nor recreational conditions have changed significantly since first evaluated in the mid-1990s. Lake perception is usually stable during the summer and improves in the fall. In 2015, lake perception was less favorable later in the summer. Overall lake perception is summarized on the Lake Scorecard and Lake Condition Summary Table.

Evaluation of Local Climate Change

Air and water temperature readings during the summer index period were close to normal in 2013 and 2015, and no clear long-term trends have been apparent. It is not known if this is an indication of local climate change or if these changes cannot be well evaluated through CSLAP.

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. Fluoroprobe readings have been well below the threshold for harmful algal blooms (HABs). The open water algal toxin readings are well below the criteria identified as protective of safe swimming. No shoreline blooms have been reported or sampled.

Lake Condition Summary

Category	Indicator	Min	Annual Avg	Max	2015 Avg	Classification	2015 Change?	Long-term Change?
Eutrophication Indicators	Water Clarity	2.00	3.90	6.00	4.18	Mesotrophic	Within Normal Range	No Change
	Chlorophyll *a*	0.10	3.38	17.00	2.08	Mesotrophic	Within Normal Range	No Change
	Total Phosphorus	0.003	0.007	0.024	0.013	Oligotrophic	Higher than Normal	No Change
Potable Water Indicators	Hypolimnetic Ammonia	0.00	0.04	0.50	0.04	Close to Surface NH4 Readings	Within Normal Range	Not known
	Hypolimnetic Arsenic							Not known
	Hypolimnetic Iron							Not known
	Hypolimnetic Manganese							Not known
Limnological Indicators	Hypolimnetic Phosphorus	0.001	0.016	0.151	0.069	Close to Surface TP Readings	Higher than Normal	Not known
	Nitrate + Nitrite	0.00	0.02	0.19	0.01	Low NOx	Within Normal Range	No Change
	Ammonia	0.00	0.03	0.20	0.05	Low Ammonia	Within Normal Range	No Change
	Total Nitrogen	0.04	0.30	1.31	0.29	Low Total Nitrogen	Within Normal Range	No Change
	pH	6.28	7.34	9.29	7.45	Circumneutral	Within Normal Range	Increasing Slightly
	Specific Conductance	28	59	116	76	Softwater	Higher than Normal	Increasing Significantly
	True Color	1	8	22	9	Uncolored	Within Normal Range	Increasing Slightly
	Calcium	3.2	4.7	16.5	5.8	Not Susceptible to Zebra Mussels	Within Normal Range	No Change
Lake Perception	WQ Assessment	1	1.9	3	1.9	Not Quite Crystal Clear	Within Normal Range	No Change
	Aquatic Plant Coverage	1	3.1	4	3.0	Surface Plant Growth	Within Normal Range	No Change
	Recreational Assessment	1	1.8	3	1.6	Excellent	Within Normal Range	No Change
Biological Condition	Phytoplankton					Open water-low blue green algae biomass	Not known	Not known
	Macrophytes					Excellent quality of the aquatic plant community	Not known	Not known
	Zooplankton					Not measured through CSLAP	Not known	Not known
	Macroinvertebrates					Not measured through CSLAP	Not known	Not known
	Fish					Not known	Not known	Not known
	Invasive Species					Fanwort	Not known	Not known
Local Climate Change	Air Temperature	7	17.8	29	19.1		Within Normal Range	No Change
	Water Temperature	15	22.6	28	22.9		Within Normal Range	No Change

Category	Indicator	Min	Annual Avg	Max	2015 Avg	Classification	2015 Change?	Long-term Change?
Harmful Algal Blooms	Open Water Phycocyanin	0	5	63	10	No readings indicate high risk of BGA	Not known	Not known
	Open Water FP Chl.a	0	1	3	1	No readings indicate high algae levels	Not known	Not known
	Open Water FP BG Chl.a	0	0	1	0	No readings indicate high BGA levels	Not known	Not known
	Open Water Microcystis	<DL	<DL	0.4	<DL	Low to undetectable open water microcystins	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
	Screening FP Chl.a					No shoreline blooms sampled for FP	Not known	Not known
	Screening 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 2007 NYSDEC Priority Waterbody Listings (PWL) for the Upper Hudson River drainage basin indicate that Hunt Lake has "no known impacts". The PWL listing for Hunt Lake is included in Appendix C.

Potable Water (Drinking Water)

The CSLAP dataset at Hunt Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, is inadequate to evaluate the use of the lake for potable water, and the lake is not used for this purpose. The limited CSLAP data do not show any impacts to the "unsanctioned" use of the lake for drinking water.

Public Bathing

The CSLAP dataset at Hunt Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggests that public bathing, if conducted at a public swimming beach, should be supported, although additional information about bacterial levels is needed to evaluate the safety of the water for swimming.

Recreation (Swimming and Non-Contact Uses)

The CSLAP dataset on Hunt Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest recreation should be fully supported, although this use may ultimately be *threatened* by the presence of fanwort.

Aquatic Life

The CSLAP dataset on Hunt Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that aquatic life should be supported, although this use may be *threatened* by fanwort and road salt runoff. Additional data are needed to evaluate the food and habitat conditions for aquatic organisms in the lake.

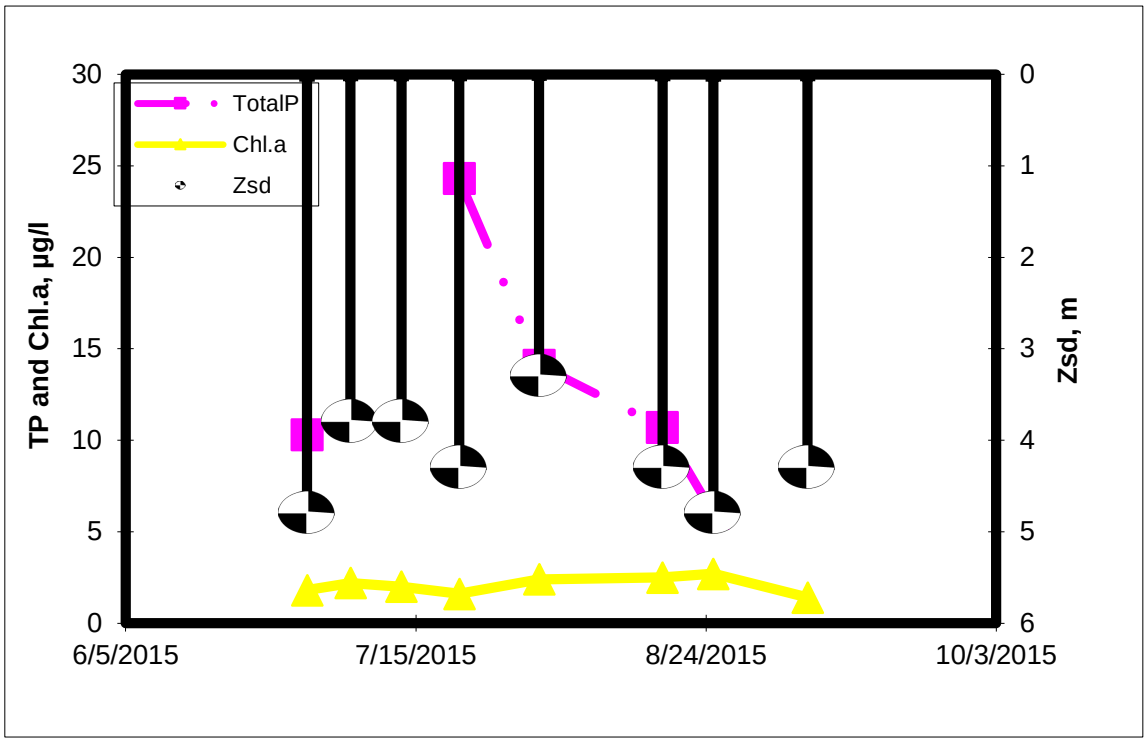
Aesthetics and Habitat
The CSLAP dataset on Hunt Lake, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that aesthetics and habitat may be *fair* due to native plants and invasive weeds (fanwort), respectively.

Fish Consumption
There is no fish consumption advisories posted for Hunt Lake.

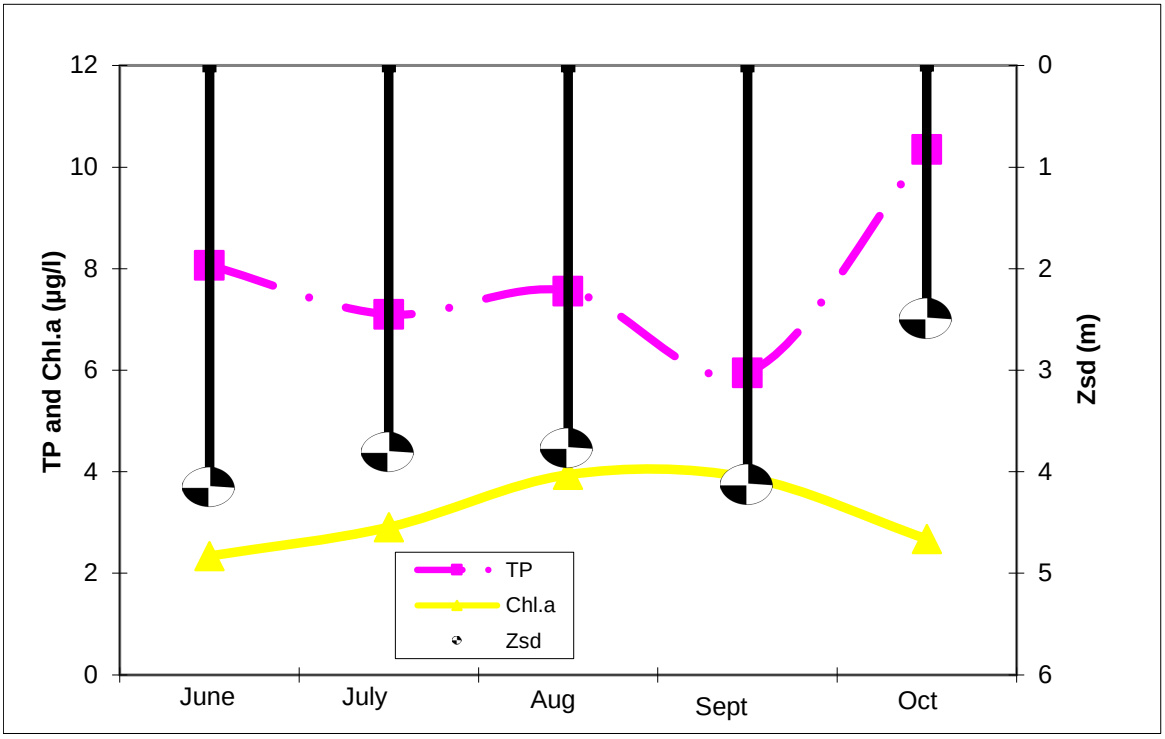
Additional Comments and Recommendations
It is not known if the populations of *Cabomba caroliniana* (fanwort) in Hunt Lake have been increasing or if the presence of fanwort has resulted in any recreational use impacts. This may warrant additional (and continuing) survey work. Lake residents are advised to report any shoreline algae blooms.

Aquatic Plant IDs-2015
None submitted for identification in 2015.

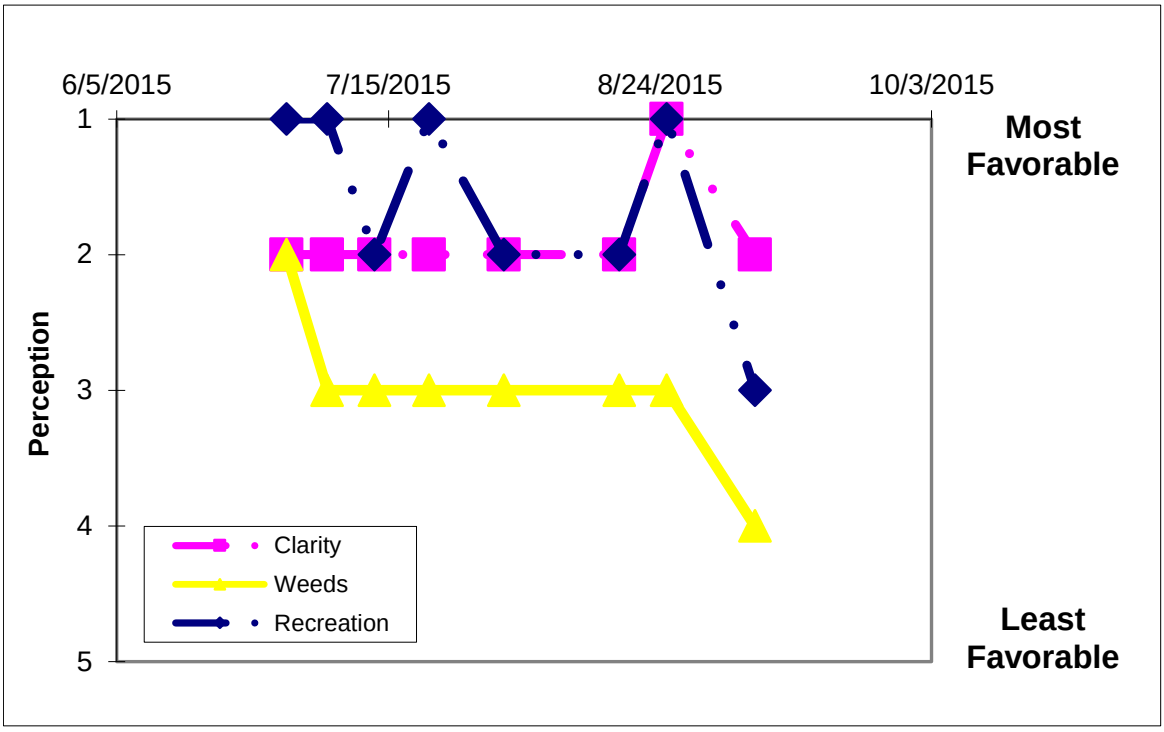
Time Series: Trophic Indicators, 2015



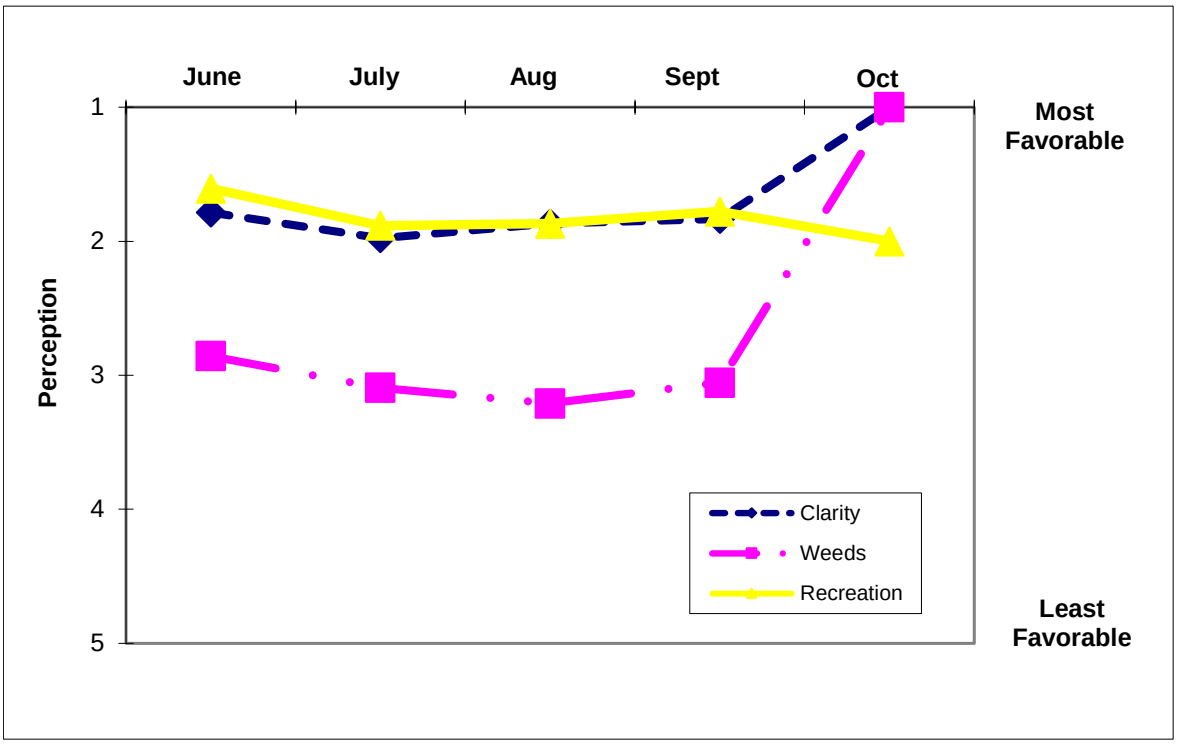
Time Series: Trophic Indicators, Typical Year (1994-2015)



Time Series: Lake Perception Indicators, 2015



Time Series: Lake Perception Indicators, Typical Year (1994-2015)



Appendix A- CSLAP Water Quality Sampling Results for Hunt Lake

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
107	Hunt L	6/30/1994	7.9	3.25	1.5	0.007	0.01				3	7.08	44		4.07	
107	Hunt L	7/16/1994	7.9	3.25	1.5	0.008	0.01				4	7.00	45		3.85	
107	Hunt L	8/13/1994	6.1	3.29	1.5	0.006	0.01				11	7.18	43		5.68	
107	Hunt L	9/24/1995		6.00		0.004	0.01				5					
107	Hunt L	10/15/1995		5.00	1.5	0.007	0.01				5				5.35	
107	Hunt L	6/9/1996	8.0	4.75	1.5	0.006	0.01				5	6.91	47		4.40	
107	Hunt L	6/23/1996	7.0	5.00		0.005	0.01				5	6.97	50		1.20	
107	Hunt L	7/9/1996	7.5	4.00	1.0	0.006	0.01					7.01	47		3.80	
107	Hunt L	7/21/1996	7.5	4.25		0.007	0.01				10	6.83	48		2.80	
107	Hunt L	8/4/1996	7.5	4.25	1.0	0.010					5	7.07	48		4.70	
107	Hunt L	8/18/1996	7.5	3.50	1.0	0.007	0.01				1	7.09	47		2.80	
107	Hunt L	9/2/1996	7.5	5.00	1.0	0.003	0.01				1	6.99	49		1.20	
107	Hunt L	9/15/1996	7.5	4.75	1.0	0.003	0.01				5	6.96	48		2.10	
107	Hunt L	6/1/1997	8.0	6.00	1.0	0.008	0.09				10	6.28	44		3.90	
107	Hunt L	6/15/1997	8.0	5.75	1.0	0.004	0.03				5	7.90	44		2.22	
107	Hunt L	6/30/1997	8.0	4.50	1.0	0.006	0.01				5	7.80	45		6.69	
107	Hunt L	7/14/1997	8.0	3.50	1.0	0.006	0.01				5	7.44	45		7.00	
107	Hunt L	7/29/1997	8.0	4.00	1.0	0.009	0.01				5	7.58	46		10.50	
107	Hunt L	8/17/1997	8.0	3.25	1.0	0.006	0.01				6	7.85	46		6.20	
107	Hunt L	9/1/1997	8.0	3.50	1.0	0.003	0.01				4	7.84	46		8.25	
107	Hunt L	9/14/1997	8.0	2.25	1.0	0.007	0.01				3	6.50	46		17.00	
107	Hunt L	5/28/1998	8.0	3.25	1.5	0.008	0.01				6	7.29	43		11.20	
107	Hunt L	6/7/1998	8.0	5.00	1.5	0.013	0.01				5	6.99	44		5.98	
107	Hunt L	6/21/1998				0.013	0.01				7	7.28	41		5.16	
107	Hunt L	7/5/1998	8.0	4.50	1.0	0.009	0.01				3	6.55	42		6.87	
107	Hunt L	7/19/1998	8.0	4.75	1.0	0.010	0.01				5	7.07	41		6.01	
107	Hunt L	8/9/1998	8.0	4.25	1.5	0.012					2	6.94	41		10.60	
107	Hunt L	8/23/1998	8.0	4.75	1.0		0.01				3	7.17	42		5.89	
107	Hunt L	9/7/1998		4.00	1.0	0.003					6	6.87	43		5.96	
107	Hunt L	5/20/2001		4.00												
107	Hunt L	6/10/2001		4.00												
107	Hunt L	7/22/2001		3.75												
107	Hunt L	7/29/2001		3.50												
107	Hunt L	8/12/2001		3.00												
107	Hunt L	8/26/2001		2.75												
107	Hunt L	9/16/2001		3.25												
107	Hunt L	07/07/02	8.0	3.50	1.0	0.004	0.02	0.12	0.45	247.06	10	7.10	51		2.16	
107	Hunt L	07/14/02	8.0	3.75	1.0	0.004	0.00	0.06	0.35	195.91	5	6.85	51		2.25	
107	Hunt L	07/21/02	8.0	4.25	1.0	0.004	0.00	0.06	0.37	190.04	12	7.04	51		1.90	
107	Hunt L	07/28/02	8.0	3.75	1.0	0.006	0.01	0.09	0.38	143.27	6	7.06	51		2.77	
107	Hunt L	08/04/02	8.0	4.25	1.0	0.004	0.02	0.03	0.59	328.79	11	7.19	51		2.53	
107	Hunt L	08/18/02	8.0	3.75		0.005	0.00	0.09	0.41	188.10	7	7.31	52		2.47	
107	Hunt L	08/25/02	8.0	3.00	1.0	0.006	0.00	0.04	0.33	128.92	1	7.17	51		5.26	
107	Hunt L	09/01/02	8.0	3.25	1.0	0.005	0.00	0.01	0.38	176.12	5	6.80	52		3.02	
107	Hunt L	6/15/2003	8.0	3.25	1.0	0.011	0.00	0.02	0.18	35.80	11	6.80	59	3.8		
107	Hunt L	6/29/2003	8.0	4.25	1.0	0.012	0.01	0.01	0.25	44.38	6	7.04	60		1.14	
107	Hunt L	7/13/2003	8.0	3.25	1.0	0.011	0.00	0.01	0.44	84.96	6	7.02	60		2.94	
107	Hunt L	7/27/2003	8.0	3.75	1.0	0.010	0.00	0.00	0.04	8.14	5	7.14	59		2.73	
107	Hunt L	8/10/2003	8.0	4.25	1.0	0.004	0.01	0.01	0.11	62.05	11	7.00	59	4.2	1.75	
107	Hunt L	8/24/2003	8.0	5.25	1.0	0.005	0.00	0.00	0.25	112.24	3	6.85	59		2.63	
107	Hunt L	9/7/2003	8.0	6.00	1.0	0.012	0.00	0.01	0.54	98.52	7	6.44	60		1.56	
107	Hunt L	9/21/2003	8.0	6.00		0.008	0.00	0.02	0.10	25.32	7	6.64	62		2.19	
107	Hunt L	7/12/2004	8.0	3.50	1.0	0.004	0.01	0.01	0.31	184.08	5	6.74	67		1.15	
107	Hunt L	7/18/2004	8.0	4.25	1.0	0.004		0.03			6	6.96	64		3.90	
107	Hunt L	8/1/2004	8.0	3.75	1.0	0.008	0.01	0.01	0.29	77.00	12	6.94	60		2.80	
107	Hunt L	8/8/2004	8.0	3.75	1.0	0.006	0.04	0.04	0.06	20.82	4	6.85	65		6.30	
107	Hunt L	8/22/2004	8.0	5.00	1.0	0.008	0.01	0.01	0.26	70.91	11	8.01	66	4.3	5.60	
107	Hunt L	8/29/2004	8.0	4.75	1.0	0.007		0.15	1.31	420.84	7	7.60	47		2.70	
107	Hunt L	9/12/2004	8.0	4.13	1.0	0.013	0.01	0.01	0.28	47.06	11	7.27	59		3.70	
107	Hunt L	9/26/2004	8.0	5.00	1.0	0.004	0.02	0.01	0.91	480.05	9	7.65	48		1.98	
107	Hunt L	6/6/2005	8.0	5.25	1.0	0.005	0.01	0.01	0.38	186.86	13	7.39	60	3.8	1.59	
107	Hunt L	6/15/2005	8.0	4.38	1.0	0.005	0.01	0.01	0.07	29.62	7	6.46	59		1.40	
107	Hunt L	7/5/2005	8.0	4.13	1.0		0.01	0.03	0.13		9	7.34	66		1.53	

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
107	Hunt L	7/16/2005	8.0	4.00	1.0	0.003	0.04	0.04	0.38	274.48	2	7.20	66		1.99	
107	Hunt L	7/31/2005	8.0	5.13	1.0	0.003	0.03	0.02	0.07	50.82	9	7.30	59	4.3	1.50	
107	Hunt L	8/7/2005	8.0	4.88	1.0	0.004	0.01	0.01	0.16	88.12	4	7.52	69		1.79	
107	Hunt L	8/15/2005	8.0	5.00	1.0	0.005	0.01	0.01	0.16	77.16	6	7.37	60		1.82	
107	Hunt L	8/28/2005	8.0	4.75	1.0	0.007	0.01	0.01	0.07	22.80	2	7.02	68		2.70	
107	Hunt L	6/18/2006	8.0	3.00	1.0	0.005	0.01	0.01	0.19	79.30	14	7.37	56	3.5	2.27	
107	Hunt L	6/19/2006	8.0	4.50	1.0	0.007	0.03	0.04	0.35	112.26	11	7.45	58		6.07	
107	Hunt L	6/23/2006	8.0	2.75	1.0	0.006	0.01	0.03	0.38	141.25	9	7.48	59		2.51	
107	Hunt L	7/10/2006	8.0	3.25	1.0	0.006	0.01	0.04	0.44	177.62		7.68	71		2.00	
107	Hunt L	8/6/2006	8.0	3.25	1.0	0.007	0.03	0.02	0.52	167.43	6	7.66	58	3.6	6.04	
107	Hunt L	8/20/2006	8.0	2.25	1.0	0.009	0.01	0.01	0.51	126.73	9	7.77	55		11.98	
107	Hunt L	9/5/2006	8.0	2.00	1.0	0.007	0.01	0.02	0.60	179.78	12	6.85	56		7.68	
107	Hunt L	9/13/2006	8.0	2.50	1.0	0.005	0.01	0.01	0.40	173.80	20	7.08	50		4.61	
107	Hunt L	6/24/2007	8.0	4.25	1.0	0.007	0.19	0.02	0.51	166.18	12	8.01	46	3.8	2.55	
107	Hunt L	7/14/2007	8.0	3.75	1.0	0.007	0.08	0.03	0.38	114.25	7	7.99	28		4.35	
107	Hunt L	7/25/2007	8.0	3.25	1.0	0.009	0.04	0.02	0.50	128.80	5	8.18	55		6.91	
107	Hunt L	8/7/2007	8.0	3.25	1.0	0.009	0.01	0.01	0.57	133.80	3	7.38	47		8.16	
107	Hunt L	8/11/2007	8.0	3.25	1.0	0.008	0.01	0.02	0.53	150.25	10	8.07	58	4.0	5.90	
107	Hunt L	8/17/2007	8.0	2.75	1.0	0.009	0.16	0.03	0.62	149.24	6	7.07	65		5.52	
107	Hunt L	8/22/2007	8.0	2.75	1.0	0.009	0.00	0.01	0.57	148.35	6	7.85	59		5.70	
107	Hunt L	8/29/2007	8.0	3.25	1.0	0.009	0.01	0.02	0.45	111.40	6	7.83	56		3.34	
107	Hunt L	6/24/2008	8.0	4.25		0.007	0.00	0.01	0.17	53.92	9	7.30	56	4.0	2.32	
107	Hunt L	7/1/2008	8.0	4.25		0.005	0.01	0.06	0.23	103.23	8	6.83	71		1.41	
107	Hunt L	7/7/2008	8.0	5.13	1.0	0.005	0.04	0.03	0.15	62.36	9	6.59	69		2.11	
107	Hunt L	7/16/2008	8.0	4.00	1.0	0.006	0.01	0.01	0.16	62.22	5	7.47	69		3.63	
107	Hunt L	7/20/2008	8.0	4.00	1.0	0.005	0.01	0.02	0.16	69.75	5	7.33	67	3.8	0.81	
107	Hunt L	7/27/2008	8.0	3.25	1.0	0.008	0.01	0.01	0.27	78.01	9	7.84	50		1.07	
107	Hunt L	8/3/2008	8.0	3.25	1.0	0.006	0.01	0.03	0.21	77.99	5	6.76	55		0.88	
107	Hunt L	8/12/2008	8.0	4.13	1.0	0.007	0.01	0.03	0.16	50.81	11	7.53	71		1.47	
107	Hunt L	07/02/2009	8.0	4.00	1.0	0.005	0.01	0.01	0.15	72.84	21	8.40	62	3.6	2.06	
107	Hunt L	07/06/2009	8.0	3.50	1.0	0.005	0.00	0.02	0.16	68.16	17	7.64	52		2.54	
107	Hunt L	07/10/2009	8.0	3.25		0.006	0.00	0.01	0.12	45.86	10	7.40	54		1.75	
107	Hunt L	07/15/2009	8.0	3.25	1.0	0.007	0.01	0.04	0.24	78.33	15	7.69	50		2.56	
107	Hunt L	07/24/2009	8.0	3.63	1.0	0.005	0.02	0.02	0.15	67.32	10	6.97	49	4.9	2.88	
107	Hunt L	07/30/2009	8.0	3.25	1.0	0.006	0.01	0.01	0.19	67.05	14	7.71	47		2.20	
107	Hunt L	08/03/2009	8.0	3.75	1.0	0.006	0.01	0.02	0.13	46.93	22	7.65	54		4.08	
107	Hunt L	08/27/2009	8.0	4.50	1.0	0.005	0.03	0.02	0.11	52.80	18	6.90	59		2.80	
107	Hunt L	5/25/2010	8.0	4.00	1.0	0.007	0.02	0.02			3	7.69	67	4.3	0.30	
107	Hunt L	6/1/2010	8.0	3.25	1.0	0.008	0.02	0.03	0.56	162.39	4	7.33	66		0.10	
107	Hunt L	6/8/2010	8.0	4.00		0.007	0.03	0.20	0.24	80.12	9	7.71	66		0.10	
107	Hunt L	6/16/2010	8.0	4.75	1.0	0.005	0.01	0.02	0.27	132.49	4	8.05	70		0.60	
107	Hunt L	6/22/2010	8.0	4.25	1.0	0.006	0.01	0.02	0.17	58.44	2	7.30	68	4.1	1.30	
107	Hunt L	7/6/2010	8.0	4.00	1.0	0.008	0.01	0.01	0.14	40.19	1	6.99	67		1.20	
107	Hunt L	7/14/2010	8.0	3.50	1.0	0.009	0.02	0.13	0.26	61.93	3	7.71	72		0.60	
107	Hunt L	8/22/2010	8.0	3.00	1.0	0.010	0.03	0.04	0.28	65.31	5	7.48	73		1.40	
107	Hunt L	6/5/2011	8.0	3.30	1.0	0.009	0.01	0.03	0.25	58.19	16	7.41	116	3.5	0.40	
107	Hunt L	6/17/2011	8.0	3.30	1.0	0.008	0.01	0.03	0.12	34.10	17	6.59	109		0.30	
107	Hunt L	6/26/2011	8.0	3.00	1.0	0.020	0.01	0.04	0.20	22.33	8	7.91	74		0.40	
107	Hunt L	7/10/2011	8.0	3.75	1.0	0.008	0.01	0.01	0.20	52.12	7	9.29	92		0.40	
107	Hunt L	7/16/2011	8.0	4.00		0.007	0.01	0.02	0.18	56.39	12	7.30	72	16.5		
107	Hunt L	8/21/2011	8.0	2.75	1.0	0.018	0.05	0.01	0.13	15.80	7	7.92	83			
107	Hunt L	9/10/2011	8.0	2.75	1.0		0.02	0.04	0.21		16	8.99	83			
107	Hunt L	10/11/2011				0.014	0.02	0.02	0.41	66.48	18	7.79	57			
107	Hunt L	6/8/2012	8.0	5.00	1.0	0.008	0.01	0.01	0.16	43.44	12	7.53	61	3.7		
107	Hunt L	6/18/2012	8.0	3.75	1.0	0.006	0.01	0.03	0.28	97.78	10	7.48	61		2.70	
107	Hunt L	7/8/2012	8.0	4.00	1.0	0.008	0.01	0.01	0.16	42.41	11	6.96	60		3.10	
107	Hunt L	7/18/2012	8.0	3.50	1.0	0.009	0.01	0.02	0.15	36.42	10	7.59	62		3.50	
107	Hunt L	7/29/2012	8.0	3.00	1.0	0.007	0.01	0.02	0.33	108.03	7	7.83	62		5.60	
107	Hunt L	8/14/2012	8.0	3.00	1.0	0.007	0.01	0.03	0.27	79.08	5	7.25	63	4.0	3.80	
107	Hunt L	8/27/2012	8.0	3.25	1.0	0.008	0.01	0.03	0.27	76.72	7	7.60	63		2.10	
107	Hunt L	9/22/2012	8.0	3.00	1.0	0.006	0.01	0.02	0.26	90.44	10	6.70	63		1.80	
107	Hunt L	6/6/2013	8.0	3.75	1.0	0.011	0.01	0.01	0.15	29.53	11	7.45	67		2.50	
107	Hunt L	6/16/2013	8.0	3.50	1.0	0.007			0.21	70.4		6.87	62		1.90	
107	Hunt L	6/26/2013	8.0	3.75	1.5	0.010	0.01	0.02	0.04	9.444	10	8.70	77		2.30	
107	Hunt L	7/27/2013	8.0	3.00	1.5	0.010			0.37	78.6	9	8.85	78			
107	Hunt L	8/6/2013	8.0	3.50	1.5	0.005	0.01	0.03	0.32	151.6	10	7.36	65		3.00	

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
107	Hunt L	8/17/2013	8.0	3.50	1.5	0.006			0.37	132.00	12	7.11	60		1.80	
107	Hunt L	9/3/2013	8.0	4.00	1.5	0.006	0.01	0.01	0.29	117.63	12	7.20	67		1.70	
107	Hunt L	9/20/2013	30.0	6.00	1.5	0.005			0.34	136.89	9	7.06	68		1.90	
107	Hunt L	6/30/2015	8.0	4.80	1.5	0.010	0.01	0.04	0.28	26.89	10	7.45	76	3.2	1.80	
107	Hunt L	7/6/2015	8.0	3.80	1.5				0.23	2.30	8	7.08	73		2.20	
107	Hunt L	7/13/2015	8.0	3.80	1.5		0.00	0.03	0.28	2.04	10	7.02	77		2.00	16.5
107	Hunt L	7/21/2015	8.0	4.30	1.5	0.024			0.24	9.79	12	7.46	80		1.60	
107	Hunt L	8/1/2015	8.0	3.30	1.5	0.014	0.02	0.09	0.45	31.84	13	7.48	74	8.3	2.40	
107	Hunt L	8/18/2015	8.0	4.30	1.5	0.011			0.32	29.63	7	7.51	76		2.50	
107	Hunt L	8/25/2015	8.0	4.80	1.5	0.006	0.02	0.02	0.34	56.00	6	7.83	78		2.70	15.8
107	Hunt L	9/7/2015	8.0	4.30	1.5				0.20	4.61	6	7.80	74		1.40	
107	Hunt L	07/07/02	8.0			0.004		0.05	2.70							
107	Hunt L	07/14/02	8.0			0.007	0.00	0.11	0.61	192.32						
107	Hunt L	07/21/02	8.0			0.009	0.00	0.06	0.32	75.21						
107	Hunt L	07/28/02	8.0			0.005	0.01	0.09	0.43	193.02						
107	Hunt L	08/04/02	8.0			0.020	0.04	0.07	0.67	74.26						
107	Hunt L	08/18/02	8.0			0.010	0.00	0.02	1.15	242.34						
107	Hunt L	08/25/02	8.0			0.007	0.00	0.05	0.36	108.53						
107	Hunt L	09/01/02	8.0			0.010	0.00	0.02	0.36	77.20						
107	Hunt L	6/15/2003	8.0			0.016	0.00	0.02	0.22	30.15						
107	Hunt L	6/29/2003	8.0			0.015	0.01	0.01	0.20	28.59						
107	Hunt L	7/13/2003	8.0			0.018	0.00	0.02	0.15	18.62						
107	Hunt L	7/27/2003	8.0			0.018	0.00	0.00	0.06	7.57						
107	Hunt L	8/10/2003	8.0			0.007	0.01	0.03	0.18	54.25						
107	Hunt L	8/24/2003	8.0			0.015	0.00	0.01	0.31	44.87						
107	Hunt L	9/7/2003	8.0			0.012	0.00	0.01	0.35	65.67						
107	Hunt L	9/21/2003	8.0		1.5	0.003	0.00	0.02	0.07	50.08						
107	Hunt L	7/12/2004				0.005	0.01	0.01	0.09	41.20						
107	Hunt L	7/18/2004				0.004	0.01	0.02	0.87	539.45						
107	Hunt L	8/1/2004				0.008	0.02	0.03	0.00	0.00						
107	Hunt L	8/8/2004				0.007	0.01	0.02	0.14	43.80						
107	Hunt L	8/22/2004				0.008	0.01	0.03	0.30	88.58						
107	Hunt L	8/29/2004				0.008	0.01	0.06	0.66	186.87						
107	Hunt L	9/12/2004				0.006	0.02	0.01	0.31	119.56						
107	Hunt L	9/26/2004				0.003	0.02	0.02	0.01	3.14						
107	Hunt L	6/6/2005				0.007										
107	Hunt L	6/15/2005				0.008										
107	Hunt L	7/5/2005				0.009										
107	Hunt L	7/16/2005				0.006										
107	Hunt L	7/31/2005				0.013										
107	Hunt L	8/7/2005				0.013										
107	Hunt L	8/15/2005				0.010										
107	Hunt L	8/28/2005				0.007										
107	Hunt L	6/18/2006	8.0			0.001										
107	Hunt L	6/19/2006	8.0			0.013										
107	Hunt L	6/23/2006	8.0			0.008										
107	Hunt L	7/10/2006	8.0			0.020										
107	Hunt L	8/6/2006	8.0			0.004										
107	Hunt L	8/20/2006	8.0			0.004										
107	Hunt L	9/5/2006	8.0			0.005										
107	Hunt L	9/13/2006	8.0			0.010										
107	Hunt L	6/24/2007	8.0			0.009										
107	Hunt L	7/14/2007	8.0			0.016										
107	Hunt L	7/25/2007	8.0			0.008										
107	Hunt L	8/7/2007	8.0			0.014										
107	Hunt L	8/11/2007	8.0			0.013										
107	Hunt L	8/17/2007	8.0			0.018										
107	Hunt L	8/22/2007	8.0			0.010										
107	Hunt L	8/29/2007	8.0			0.010										
107	Hunt L	6/24/2008	8.0			0.012										
107	Hunt L	7/1/2008	8.0			0.024										
107	Hunt L	7/7/2008	8.0			0.029										
107	Hunt L	7/16/2008	8.0			0.011										
107	Hunt L	7/20/2008	8.0			0.010										
107	Hunt L	7/27/2008	8.0			0.009										
107	Hunt L	8/3/2008	8.0			0.009										

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
107	Hunt L	8/12/2008	8.0			0.011										
107	Hunt L	07/02/2009	8.0			0.009		0.01								
107	Hunt L	07/06/2009	8.0			0.011										
107	Hunt L	07/10/2009	8.0			0.007		0.01								
107	Hunt L	07/15/2009	8.0			0.008										
107	Hunt L	07/24/2009	8.0			0.007		0.50								
107	Hunt L	07/30/2009	8.0			0.008										
107	Hunt L	08/03/2009	8.0			0.007		0.01								
107	Hunt L	08/27/2009	8.0			0.007										
107	Hunt L	5/25/2010	8.0			0.009		0.02								
107	Hunt L	6/8/2010	8.0			0.008		0.03								
107	Hunt L	6/22/2010	8.0			0.007		0.03								
107	Hunt L	7/14/2010	8.0			0.011		0.03								
107	Hunt L	6/5/2011				0.011		0.07								
107	Hunt L	6/26/2011				0.032		0.02								
107	Hunt L	7/16/2011				0.013		0.02								
107	Hunt L	9/10/2011				0.006		0.03								
107	Hunt L	6/8/2012				0.012		0.03								
107	Hunt L	7/8/2012				0.008		0.01								
107	Hunt L	7/29/2012				0.013		0.02								
107	Hunt L	8/14/2012				0.021		0.02								
107	Hunt L	6/6/2013			7.0	0.009		0.02								
107	Hunt L	6/26/2013			7.5	0.008		0.02								
107	Hunt L	8/6/2013			7.5	0.013		0.03								
107	Hunt L	9/3/2013			7.5	0.014		0.01								
107	Hunt L	6/30/2015			7.0	0.021		0.06								
107	Hunt L	7/6/2015			7.0	0.150										
107	Hunt L	7/13/2015			7.0	0.061		0.03								
107	Hunt L	7/21/2015			7.0	0.049										
107	Hunt L	8/1/2015			7.0	0.031		0.04								
107	Hunt L	8/18/2015			7.0	0.053										
107	Hunt L	8/25/2015			7.0	0.037		0.05								
107	Hunt L	9/7/2015			7.0	0.151										

LNum	PName	Date	Type	TAir	TH20	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cylin	FP-Chl	FP-BG	HAB form	Shore HAB
107	Hunt L	6/30/1994	epi	29	23	2	2	1												
107	Hunt L	7/16/1994	epi	24	25	2	3	1												
107	Hunt L	8/13/1994	epi	23	22	2	3	1												
107	Hunt L	9/24/1995	epi	13	17	1	3	1												
107	Hunt L	10/15/1995	epi	10	15	1	1	2	5											
107	Hunt L	6/9/1996	epi	27	22	1	3	1	5											
107	Hunt L	6/23/1996	epi	21	22	1	3	1												
107	Hunt L	7/9/1996	epi	24		2	3	2	1											
107	Hunt L	7/21/1996	epi	24	22	2	2	2												
107	Hunt L	8/4/1996	epi	24	23	2	2	2												
107	Hunt L	8/18/1996	epi	24	25	2	3	2												
107	Hunt L	9/2/1996	epi	24	25	1	3	2												
107	Hunt L	9/15/1996	epi	16	20	1	2	2	5											
107	Hunt L	6/1/1997	epi	19	16	1	1	1	5											
107	Hunt L	6/15/1997	epi	23	20	2	3	2												
107	Hunt L	6/30/1997	epi	29	26	3	3	2												
107	Hunt L	7/14/1997	epi	29	26	3	3	2												
107	Hunt L	7/29/1997	epi	21	17	2	3	2												
107	Hunt L	8/17/1997	epi	24	25	2	3	2												
107	Hunt L	9/1/1997	epi	24	21	2	3	2												
107	Hunt L	9/14/1997	epi	18	20	3	3	2	1											
107	Hunt L	5/28/1998	epi		18	2	3	2												
107	Hunt L	7/5/1998	epi	16	23	2	3	2												
107	Hunt L	7/19/1998	epi	18	25	2	3	2												
107	Hunt L	8/9/1998	epi	16	24	2	3	2												
107	Hunt L	8/23/1998	epi	18	22	2	3	2	5											
107	Hunt L	9/7/1998	epi	17	21	2	3	2	5											
107	Hunt L	07/07/02	epi	21	25	1	3	2	5											

LNum	PName	Date	Type	TAir	TH20	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cylin	FP-Chl	FP-BG	HAB form	Shore HAB
107	Hunt L	07/14/02	epi	18	24	2	3	2	8											
107	Hunt L	07/21/02	epi	16	24	2	2	2	8											
107	Hunt L	07/28/02	epi	21	24	2	2	2	5											
107	Hunt L	08/04/02	epi	20	24	1	3	1												
107	Hunt L	08/18/02	epi	20	28	2	3	2												
107	Hunt L	08/25/02	epi	21	25	2	3	2												
107	Hunt L	09/01/02	epi	10	22	2	3	2	5											
107	Hunt L	6/15/2003	epi	10		1	3	1	0											
107	Hunt L	6/29/2003	epi	16	24	2	3	2	6											
107	Hunt L	7/13/2003	epi	13	25	2	3	2	8											
107	Hunt L	7/27/2003	epi	18	24	2	3	2	5											
107	Hunt L	8/10/2003	epi	20	25	2	3	2	58											
107	Hunt L	8/24/2003	epi	10	23	2	3	2	6											
107	Hunt L	9/7/2003	epi	10	20	1	3	1	0											
107	Hunt L	9/21/2003	epi	10	20	1	3	1	0											
107	Hunt L	7/12/2004	epi	18	24	2	3	2	5											
107	Hunt L	7/18/2004	epi	18	24	2	3	2	0											
107	Hunt L	8/1/2004	epi	21	24	2	3	2	8											
107	Hunt L	8/8/2004	epi	13	22	2	3	2	5											
107	Hunt L	8/22/2004	epi	7	20	1	3	2	0											
107	Hunt L	8/29/2004	epi	21	22	2	3	2	0											
107	Hunt L	9/12/2004	epi	13	22	2	3	1	0											
107	Hunt L	9/26/2004	epi	16	20	1	3	1	0											
107	Hunt L	6/6/2005	epi	24	24	2	3	2	6											
107	Hunt L	6/15/2005	epi	21	25	3	3	2	6											
107	Hunt L	7/5/2005	epi	21	25	1	3	1	0											
107	Hunt L	7/16/2005	epi	20	25	2	3	2	0											
107	Hunt L	7/31/2005	epi	16	25	1	3	2	8											
107	Hunt L	8/7/2005	epi	16	26	1	3	1	0											
107	Hunt L	8/15/2005	epi	21	26	1	3	2	8											
107	Hunt L	8/28/2005	epi	21	24	2	3	2	5											
107	Hunt L	6/18/2006	epi	26	26	2	3	2	0											
107	Hunt L	6/19/2006	epi	24	22	3	3	2	6											
107	Hunt L	6/23/2006	epi	21	24	2	3	2	5											
107	Hunt L	7/10/2006	epi	27	25	2	3	1	0											
107	Hunt L	8/6/2006	epi	24	28	2	3	1	0											
107	Hunt L	8/20/2006	epi	22	25	2	3	2	0											
107	Hunt L	9/5/2006	epi	16	19	3	3	2	5											
107	Hunt L	9/13/2006	epi	10	17	3	3	2	5											
107	Hunt L	6/24/2007	epi	7	20	2	3	1	5											
107	Hunt L	7/14/2007	epi	10	22	2	3	2	0											
107	Hunt L	7/25/2007	epi	18	24	2	4	2	0											
107	Hunt L	8/7/2007	epi	18	25	2	4	2	0											
107	Hunt L	8/11/2007	epi	14	24	2	4	2	0											
107	Hunt L	8/17/2007	epi	17	24	2	4	2	5											
107	Hunt L	8/22/2007	epi	13	20	2	4	2	5											
107	Hunt L	8/29/2007	epi	16	23	2	4	2	0											
107	Hunt L	6/24/2008	epi	16	24	2	4	1	0											
107	Hunt L	7/1/2008	epi	16	24	2	3	2	8											
107	Hunt L	7/7/2008	epi	16	25	2	4	1	0											
107	Hunt L	7/16/2008	epi	13	24	2	3	2	2											
107	Hunt L	7/20/2008	epi	22	26	3	3	2	1											
107	Hunt L	7/27/2008	epi	19	24	2	3	2	8											
107	Hunt L	8/3/2008	epi	17	24	2	3	2	5											
107	Hunt L	8/12/2008	epi	16	23	2	3	2	0											
107	Hunt L	07/02/2009	epi	16	22	2	3	2	5											
107	Hunt L	07/06/2009	epi	10	21	2	3	2	0											
107	Hunt L	07/10/2009	epi	15	21	2	4	2	2											
107	Hunt L	07/15/2009	epi	14	20	2	4	2	2											
107	Hunt L	07/24/2009	epi	16	22	2	4	2	2											
107	Hunt L	07/30/2009	epi	19	23	2	4	2	2											

LNum	PName	Date	Type	TAir	TH20	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cylin	FP-Chl	FP-BG	HAB form	Shore HAB
107	Hunt L	08/03/2009	epi	15	21	2	3	2	8											
107	Hunt L	08/27/2009	epi	9	23	2	4	2	2											
107	Hunt L	5/25/2010	epi	18	19	2	3	2	6	0	0									
107	Hunt L	6/1/2010	epi	20	22	2	3	2	5	0	0									
107	Hunt L	6/8/2010	epi	10	20	1	3	2	0	0	0									
107	Hunt L	6/16/2010	epi	11	19	1	3	2	0	0	0									
107	Hunt L	6/22/2010	epi	15	22	2	3	2	0	0	0									
107	Hunt L	7/6/2010	epi	24	25	2	3	2	0	0	0									
107	Hunt L	7/14/2010	epi	21	26	2	3	2	26	0	0	17.43								
107	Hunt L	8/22/2010	epi	17	23	2	3	2	5	0	0	19.10								
107	Hunt L	6/5/2011	epi	21	19	2	2	1	0	0	0	5.10	2.50							
107	Hunt L	6/17/2011	epi	15	20	2	3	2	6	0	0	4.70	1.90							
107	Hunt L	6/26/2011	epi	15	20	2	3	2	0	0	0	3.20	1.50							
107	Hunt L	7/10/2011	epi	20	25	2	3	2	0	0	0	5.80	2.20							
107	Hunt L	7/16/2011	epi	17	24	2	3	2	0	0	0	2.10	2.20	0.15	<0.900	<0.1				
107	Hunt L	8/21/2011	epi	17	24	2	3	2	2	0	0	7.10	5.80							
107	Hunt L	9/10/2011	epi	15	21	3	3	2	8	0	0	3.70	4.60							
107	Hunt L	10/11/2011	epi									2.80	2.00							
107	Hunt L	6/8/2012	epi	23	19	1	3	1	0	0	0	6.20	0.20	<0.30	<0.417		1.11	0.75	I	
107	Hunt L	6/18/2012	epi	12	21	1	3	1	0	0	0	0.00	0.60	<0.30	<0.417		0.30	0.11	I	
107	Hunt L	7/8/2012	epi	20	26	2	3	2	2	0	0			<0.30	<0.423				I	
107	Hunt L	7/18/2012	epi	22	27	2	4	3	2	0	0	-0.20	0.40	<0.30	<0.585		1.86	0.43	I	
107	Hunt L	7/29/2012	epi	20	25	2	3	2	28	0	0	0.30	1.10	<0.30	<0.292		3.13	0.00	I	
107	Hunt L	8/14/2012	epi	15	24	2	4	2	2	0	0	1.70	0.80	0.33	<0.552		2.28	0.84		
107	Hunt L	8/27/2012	epi	15	24	2	4	2	2	0	0	0.00	0.40	0.32	<0.551		1.43	0.73	I	
107	Hunt L	9/22/2012	epi	12	17	2	3	3	2	0	0	1.70	0.20	<0.30	<3.205		1.22	0.92	I	
107	Hunt L	6/6/2013	epi	12	20	1	3	2	0	0	0	1.30	0.70	<0.30	<0.420		1.10	0.40	I	I
107	Hunt L	6/16/2013	epi	12		2	3	2	6	0	0	0.05	1.30	<0.30	<0.440				I	I
107	Hunt L	6/26/2013	epi	21	23	2	3	2	56	0	0	1.30	0.60	<0.30	<0.510		1.40	0.70	I	I
107	Hunt L	7/27/2013	epi	20	25	2	3	2	2	0	0	1.20	2.00	<0.30	<0.380		1.60	0.00	I	I
107	Hunt L	8/6/2013	epi	12	21	2	3	2	2	0	0	0.10	1.60	<0.30	<0.340		1.40	0.00	I	I
107	Hunt L	8/17/2013	epi	10	20	2	4	2	2	0	0	1.30	1.30	<0.30	<0.390		0.70	0.00	I	I
107	Hunt L	9/3/2013	epi	19	23	2	4	2	2	0	0	2.20	0.50	0.39	<1.240		0.30	0.00		
107	Hunt L	9/20/2013	epi	24	20	1	3	1	0	0	0	1.40	0.80	<0.30	<19.130		0.10	0.00	I	I
107	Hunt L	6/30/2015	epi	18	21	2	2	1	0	0	0	0.90	0.20	<0.71	<0.003	<0.011	0.95	0.33	I	I
107	Hunt L	7/6/2015	epi	24	22	2	3	1	0	0	0	1.70	0.40	<0.71	<0.003	<0.011	1.28	0.00	I	I
107	Hunt L	7/13/2015	epi	18	22	2	3	2	2	0	0	1.60	0.30				1.10	0.00	I	I
107	Hunt L	7/21/2015	epi	22	24	2	3	1	2	0	0	0.70	0.50	<0.36	<0.003	<0.018	1.52	0.00	I	I
107	Hunt L	8/1/2015	epi	18	25	2	3	2	2568	0	0	5.21	0.28	<0.18	<0.002	<0.009	0.41	0.00	I	I
107	Hunt L	8/18/2015	epi	19	24	2	3	2	2	0	0	4.40	0.50	<0.33	<0.006	<0.024	1.32	0.00	I	I
107	Hunt L	8/25/2015	epi	16	23	1	3	1	2	0	0	62.60	0.60	<0.21	<0.003	<0.010	1.25	0.00	I	I
107	Hunt L	9/7/2015	epi	18	22	2	4	3	28	0	0	0.05	0.30	<0.74	<0.010	<0.075	0.37	0.00	I	I

Legend Information

Indicator	*Description*	*Detection Limit*	*Standard (S) / Criteria (C)*
General Information			
Lnum	lake number (unique to CSLAP)		
Lname	name of lake (as it appears in the Gazetteer of NYS Lakes)		
Date	sampling date		
Field Parameters			
Zbot	lake depth at sampling point, meters (m)		
Zsd	Secchi disk transparency or clarity	0.1m	1.2m (C)
Zsamp	water sample depth (m) (epi = epilimnion or surface; bot = bottom)	0.1m	none
Tair	air temperature (C)	-10C	none
TH20	water temperature (C)	-10C	none
Laboratory Parameters			
Tot.P	total phosphorus (mg/l)	0.003 mg/l	0.020 mg/l (C)
NOx	nitrate + nitrite (mg/l)	0.01 mg/l	10 mg/l NO3 (S), 2 mg/l NO2 (S)
NH4	total ammonia (mg/l)	0.01 mg/l	2 mg/l NH4 (S)
TN	total nitrogen (mg/l)	0.01 mg/l	none
TN/TP	nitrogen to phosphorus (molar) ratio, = (TKN + NOx)*2.2/TP		none
TCOLOR	true (filtered) color (ptu, platinum color units)	1 ptu	none
pH	powers of hydrogen (S.U., standard pH units)	0.1 S.U.	6.5, 8.5 S.U. (S)
Cond25	specific conductance, corrected to 25C (umho/cm)	1 umho/cm	none
Ca, Cl	calcium, chloride (mg/l)	1 mg/l	none
Chl.a	chlorophyll a (ug/l)	0.01 ug/l	none
Fe	iron (mg/l)	0.1 mg/1	1.0 mg/l (S)
Mn	manganese (mg/l)	0.01 mg/l	0.3 mg/l (S)
As	arsenic (ug/l)	1 ug/l	10 ug/l (S)
AQ-PC	Phycocyanin (aquaflor) (unitless)	1 unit	none
AQ-Chl	Chlorophyll *a* (aquaflor) (ug/l)	1 ug/l	none
MC-LR	Microcystis-LR (ug/l)	0.01 ug/l	1 ug/l potable (C) 20 ug/l swimming (C)
Ana	Anatoxin-a (ug/l)	variable	none
Cyl	Cylindrospermposin (ug/l)	0.1 ug/l	none
FP-Chl, FP-BG	Fluoroprobe total chlorophyll, fluoroprobe blue-green chlorophyll (ug/l)	0.1 ug/l	none
Lake Assessment			
QA	water quality assessment; 1 = crystal clear, 2 = not quite crystal clear, 3 = definite algae greenness, 4 = high algae levels, 5 = severely high algae levels		
QB	aquatic plant assessment; 1 = no plants visible, 2 = plants below surface, 3 = plants at surface, 4 = plants dense at surface, 5 = surface plant coverage		
QC	recreational assessment; 1 = could not be nicer, 2 = excellent, 3 = slightly impaired, 4 = substantially impaired, 5 = lake not usable		
QD	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		
QF, QG	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		
HAB form, Shore HaB	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 Hunt Lake

Efner, Jenny and Hunt Lakes (1104-0105) NoKnownImpct

Waterbody Location Information

Revised: 12/11/2006

Water Index No:	H-369-P127- 2..P129,P130,P131	**Drain Basin:**	Upper Hudson River
Hydro Unit Code:	02020002/080 **Str Class:** B		Sacandaga River
Waterbody Type:	Lake	**Reg/County:**	5/Saratoga Co. (46)
Waterbody Size:	313.8 Acres	**Quad Map:**	CONKLINGVILLE (H-25-4)
Seg Description:	total area of all three lake		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)

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

Source(s) of Pollutant(s)

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

Resolution/Management Information

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

Further Details

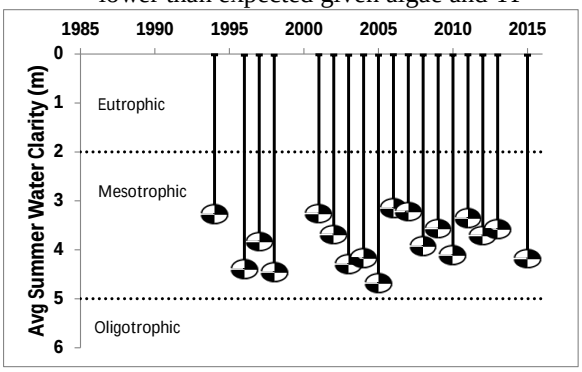
Jenny and Hunt Lakes have been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1994 and continuing through 2005. Interpretive Summary reports of the findings of this sampling were published in 2006. These data indicate that the lakes continue to be best characterized as mesooligotropic, or moderately unproductive. Phosphorus levels in both lakes are well below criteria that would indicate impacted recreational uses and transparency measurements easily satisfy what is recommended for swimming beaches. (DEC/DOW, BWAM/CSLAP, May 2006)

Public perception and uses of the lakes are also evaluated as part of the CSLAP program. These assessments indicate recreational suitability of the lakes to be highly favorable since the lakes were first evaluated and continuing through the most recent assessments. 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 "crystal cleear" or "not quite crystal clear." Mostly native aquatic plants are present and grow to the surface in the lakes, but they are not dense. However the presence of fanwort in both lakes has been confirmed and warrant continued monitoring. (DEC/DOW, BWAM/CSLAP, May 2006)

Appendix C- Long Term Trends: Hunt Lake

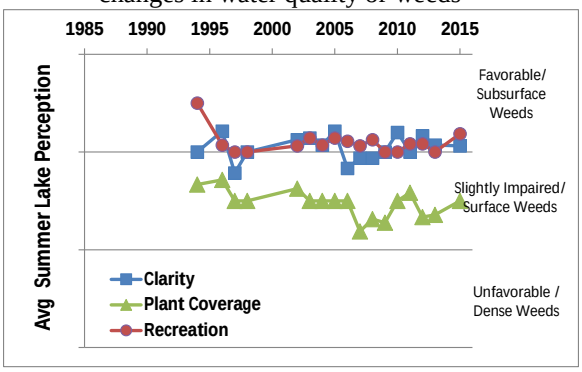
Long Term Trends: Water Clarity

- No clear trends; small to mod annual changes
- Most readings typical of *mesotrophic* lakes, lower than expected given algae and TP



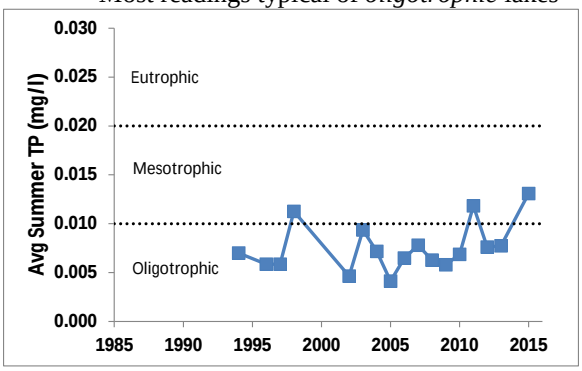
Long Term Trends: Lake Perception

- Slight recent increase in plant coverage
- Recreational perception not closely linked to changes in water quality or weeds



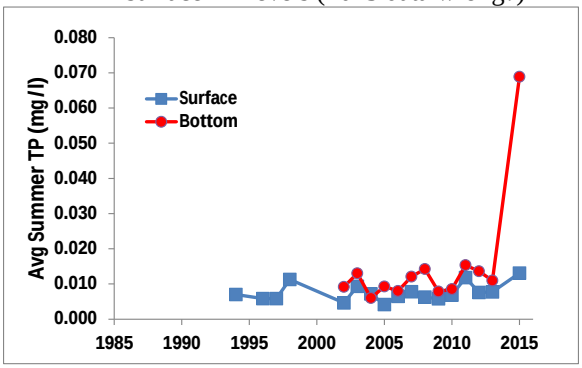
Long Term Trends: Phosphorus

- Slight ↑since '01; 2015 data probably inaccurate (bottle contaminant?)
- Most readings typical of *oligotrophic* lakes



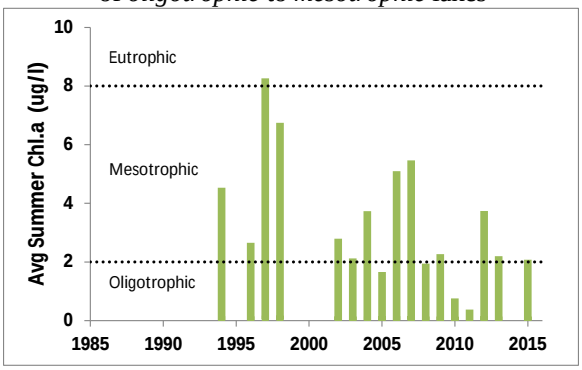
Long Term Trends: Bottom Phosphorus

- Deepwater TP very similar to surface TP
- Does not appear to have resulted in increase in surface TP levels (2015 data wrong?)



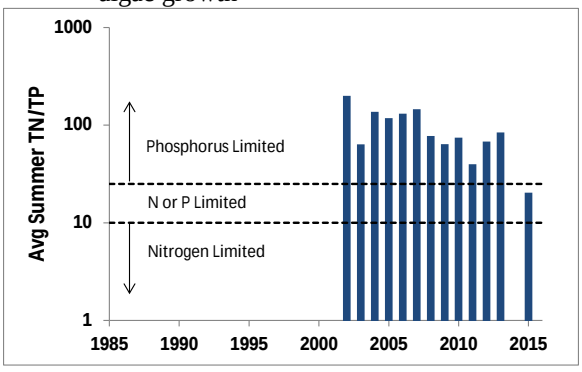
Long Term Trends: Chlorophyll a

- No long term trend; perhaps slight decrease
- High variability in algae levels; most typical of *oligotrophic* to *mesotrophic* lakes



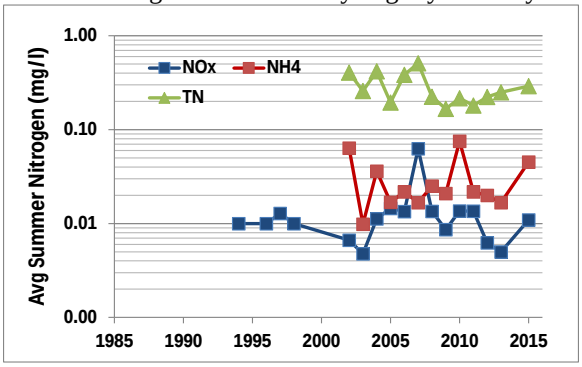
Long Term Trends: N:P Ratio

- Slight decrease since early 2000s
- Most readings indicate phosphorus limits algae growth



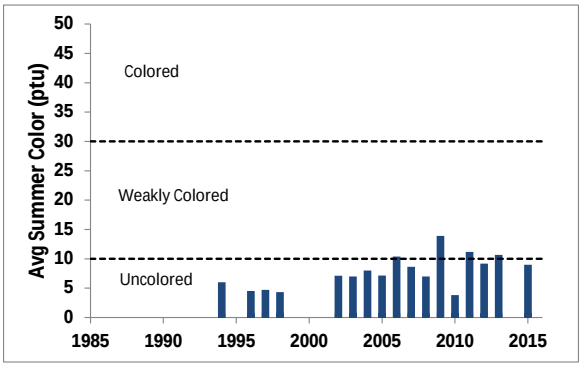
Long Term Trends: Nitrogen

- No trends apparent; recent ↑TN
- Low nitrate, ammonia and total nitrogen; all nitrogen indicators vary slightly annually



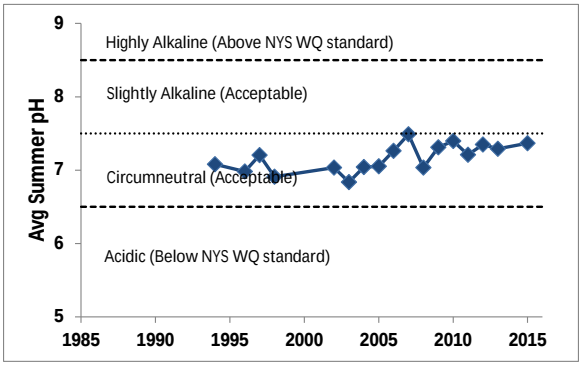
Long Term Trends: Color

- Slight increase after early 2000s lab change
- Most readings typical of *uncolored* lakes



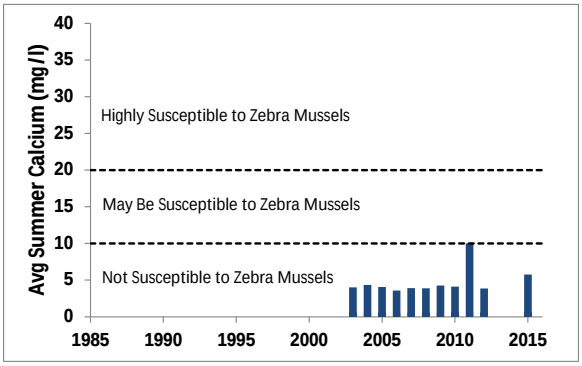
Long Term Trends: pH

- Slight increase in pH since 2003
- Most readings typical of *circumneutral* lakes



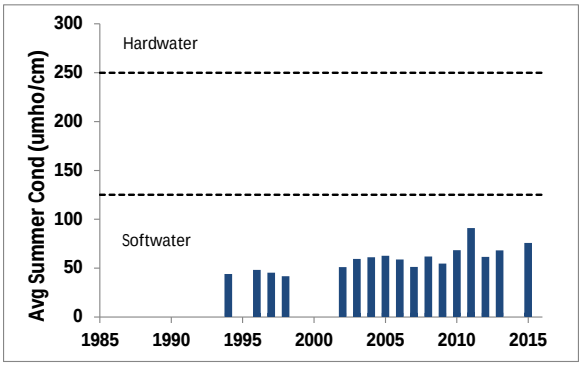
Long Term Trends: Calcium

- No trends yet apparent
- Most readings indicate low susceptibility to zebra mussels



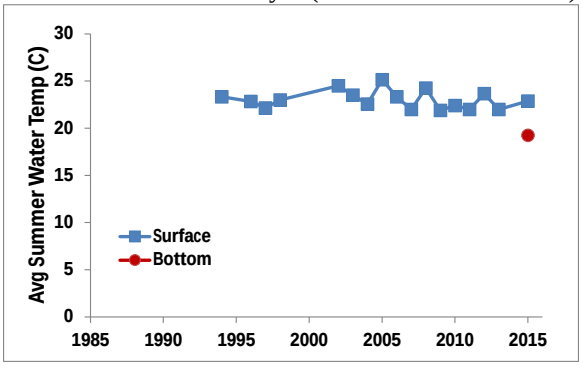
Long Term Trends: Conductivity

- Slight increase in last few years
- Most readings typical of *softwater* lakes



Long Term Trends: Water Temperature

- No trends apparent in surface readings
- Limited deepwater temperature data suggests weak thermal layer (consistent with TP data)



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 25-30 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.

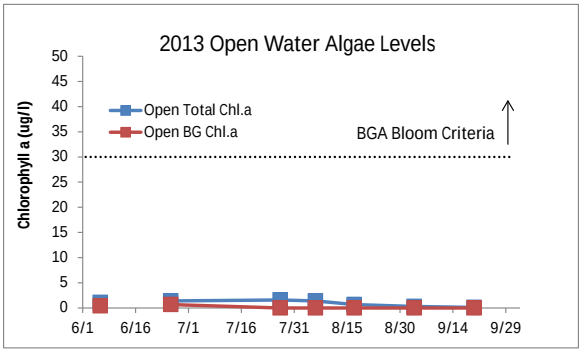


Figure D1:
2013 Open Water Total and BGA Chl.a

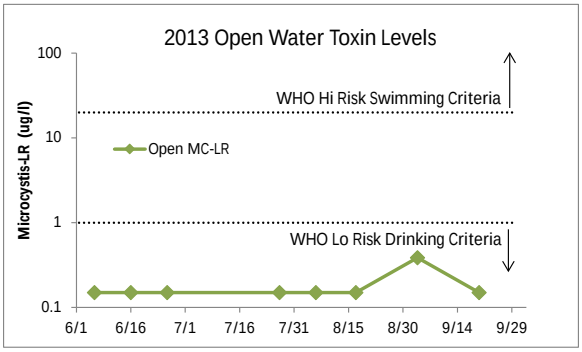


Figure D2:
2013 Open Water Microcystin-LR

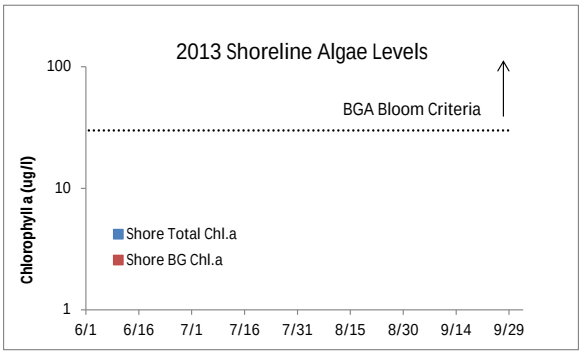


Figure D3:
2013 Shoreline Total and BGA Chl.a

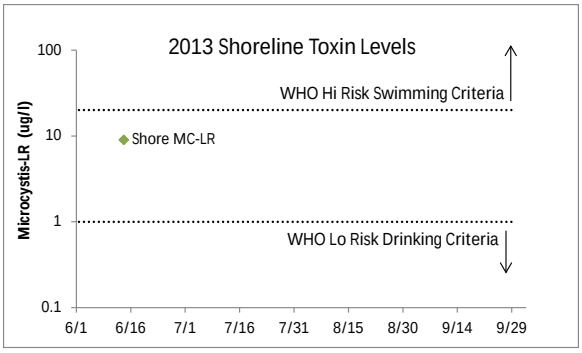


Figure D4:
2013 Shoreline Microcystin-LR

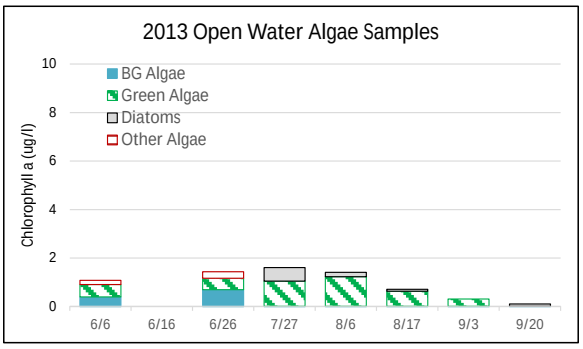


Figure D5:
2013 Open Water Algae Types

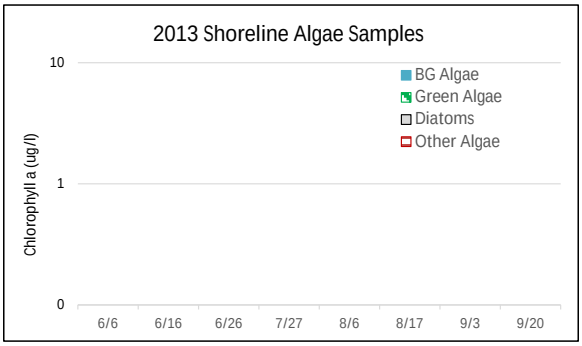


Figure D6:
2013 Shoreline Algae Types

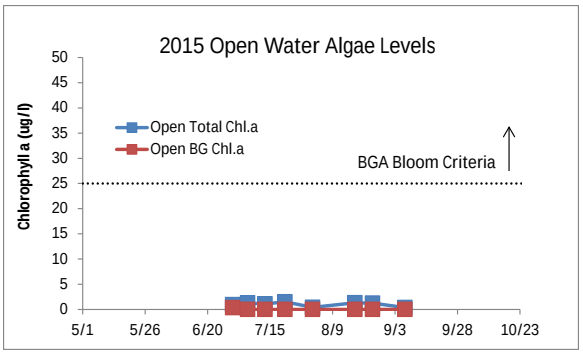


Figure D7:
2015 Open Water Total and BGA Chl.a

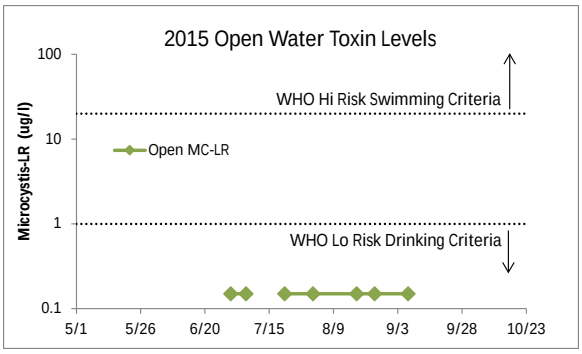


Figure D8:
2015 Open Water Microcystin-LR

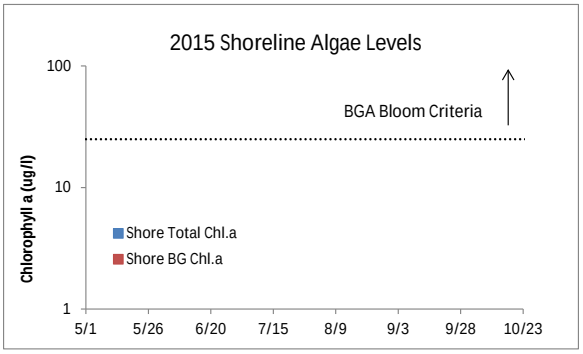


Figure D9:
2015 Shoreline Total and BGA Chl.a

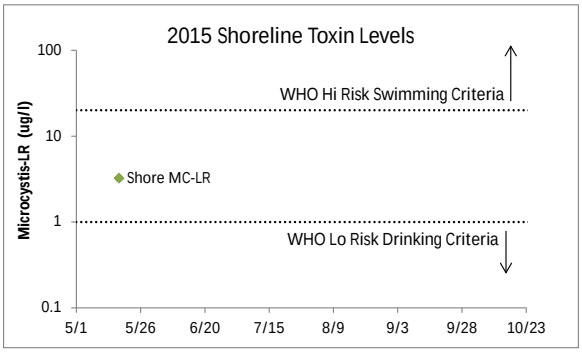


Figure D10:
2015 Shoreline Microcystin-LR

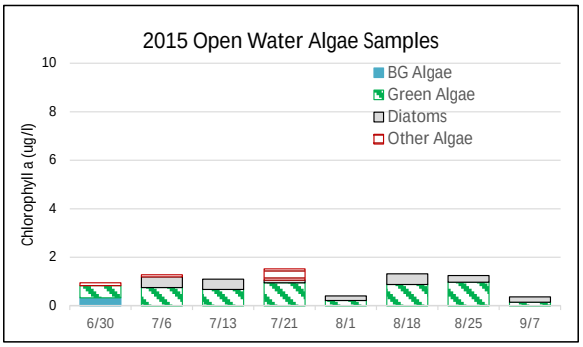


Figure D11:
2015 Open Water Algae Types

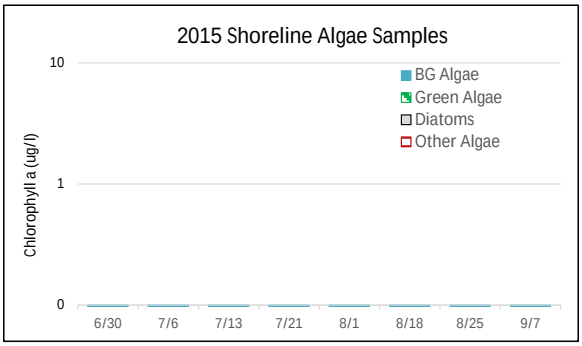


Figure D12:
2015 Shoreline Algae Types

Appendix E:
AIS Species in Saratoga County

The table below shows the invasive aquatic plants and animals that have been documented in Saratoga 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).

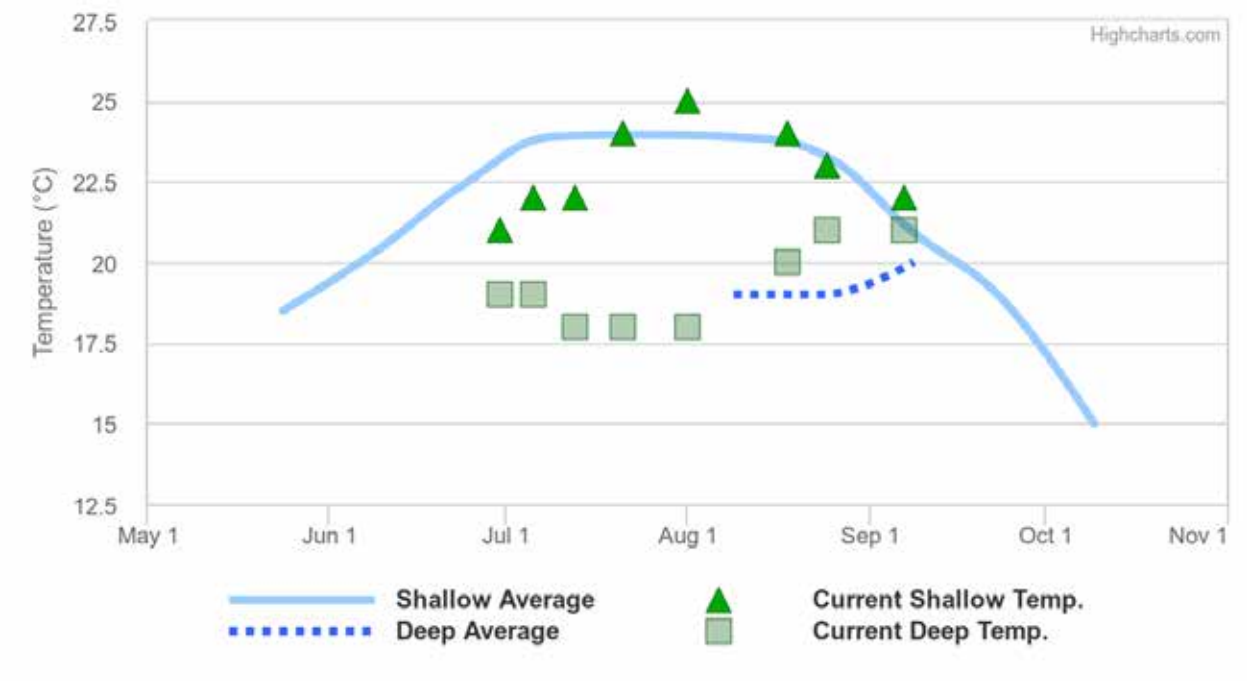
This list is not complete, but instead represents only those species that have been reported and verified within the county. If any additional aquatic invasive species (AIS) are known or suspected in these or other waterbodies in the county, this information should be reported through iMap invasives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

Aquatic Invasive Species – Saratoga County			
Waterbody	**Kingdom**	**Common name**	**Scientific name**
Anthony Kill	Plant	Water chestnut	*Trapa natans*
Ballston Lake	Animal	Zebra mussel	*Dreissena polymorpha*
Ballston Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Ballston Lake	Plant	Water chestnut	*Trapa natans*
Efner Lake	Plant	Fanwort	*Cabomba caroliniana*
Galway Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Galway Lake	Plant	Brittle naiad	*Najas minor*
Galway Lake	Plant	Water chestnut	*Trapa natans*
Great Sacandaga Lake	Animal	Spiny waterflea	*Bythotrephes longimanus*
Great Sacandaga Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Hudson River- Schuylerville	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Hudson River- Schuylerville	Plant	Water chestnut	*Trapa natans*
Hunt Lake	Plant	Fanwort	*Cabomba caroliniana*
Jenny Lake	Plant	Fanwort	*Cabomba caroliniana*
Little Round Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Little Round Lake	Plant	Brittle naiad	*Najas minor*
Little Round Lake	Plant	Water chestnut	*Trapa natans*
Mill Pond	Plant	Fanwort	*Cabomba caroliniana*
Moreau Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Round Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Round Lake	Plant	Brittle naiad	*Najas minor*
Round Lake	Plant	Water chestnut	*Trapa natans*
Saratoga Lake	Animal	Goldfish	*Carassius auratus*
Saratoga Lake	Animal	Common carp	*Cyprinus carpio*
Saratoga Lake	Animal	Zebra mussel	*Dreissena polymorpha*
Saratoga Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Saratoga Lake	Plant	Curly leafed pondweed	*Potamogeton crispus*

Waterbody	Kingdom	Common name	Scientific name
Saratoga Lake	Plant	Water chestnut	*Trapa natans*
Stoney Creek Reservoir	**Plant**	**Eurasian watermilfoil**	***Myriophyllum spicatum***
Stoney Creek Reservoir	**Plant**	**Water chestnut**	***Trapa natans***
Van Patten's Pond	Plant	Water chestnut	*Trapa natans*
Woodland Lake	Plant	Curly leafed pondweed	*Potamogeton crispus*

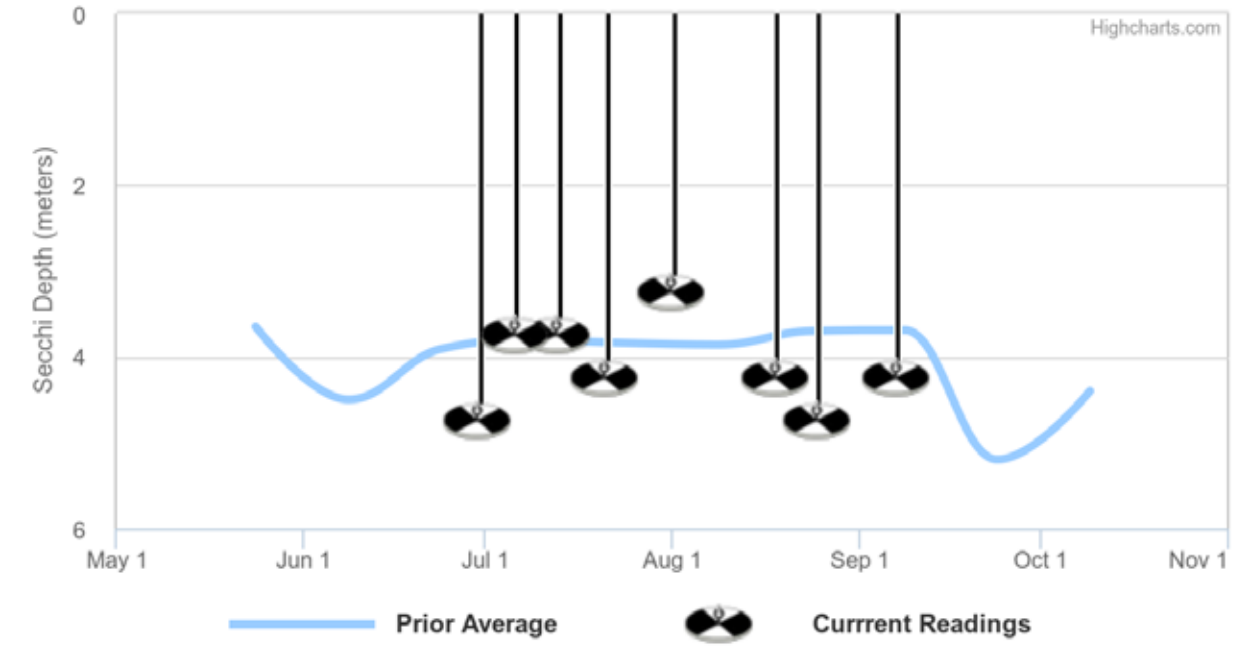
Appendix F: Current Year vs. Prior Averages for Hunt Lake

Current Year Water Temperatures vs. Prior Average



This year's shallow water sample temperatures are about the same as the average of readings collected from 1994 to 2013. There are not enough deep water sample temperatures to determine a trend for the current year when compared to the average of readings collected during 1998.

Current Year Secchi Readings vs. Prior Average



This year's session Secchi readings are tending to be higher than normal when compared to the average of readings collected from 1994 to 2013

Appendix G: Watershed and Land Use Map for Hunt 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.