

Lake Placid Questions and Answers, 2015 CSLAP

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

A1. Water quality conditions in Lake Placid continue to be highly favorable—water clarity is very high due to low nutrient and algae levels, although there has been some decrease in water clarity over the last two decades.

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

A2. Chloride testing results were typical of lakes with no to low 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. Lake Placid had much higher water clarity, and much lower nutrient and algae levels, than the typical lake in the area. Aquatic plant coverage continues to be lower than in these other lakes, although variable leaf watermilfoil and other invasive species represent a threat to the lake.

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

A4. Water clarity has decreased slightly but inconsistently since the early 1990s, despite no similar increase in nutrient or algae levels. Aquatic plant coverage has increased slightly since the mid-2000s, but it is not known if this is due to native or exotic (variable leaf watermilfoil) species.

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

A5. Lake Placid does not appear to be susceptible to shoreline blue green algae blooms, based on very low nutrient levels. However, some small shoreline blooms have been documented, including blooms along the south and southwest shoreline in 2015. It is not yet known if these are representative or indicative of future problems. Lake residents should avoid these blooms and minimize water intake around any bloom locations.

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 lake health by reducing nutrient and sediment loading to the lake. Visiting boats should be inspected to reduce the risk of new invasive species, since nearby lakes harbor several invasive plants not presently found in the lake.

Lake Use				
	PWL	Average Year	2015	Primary issue
Potable Water				No impacts
Swimming				No impacts
Recreation				No impacts
Aquatic Life				No impacts
Aesthetics				No impacts
Habitat				Invasive plants
Fish Consumption				

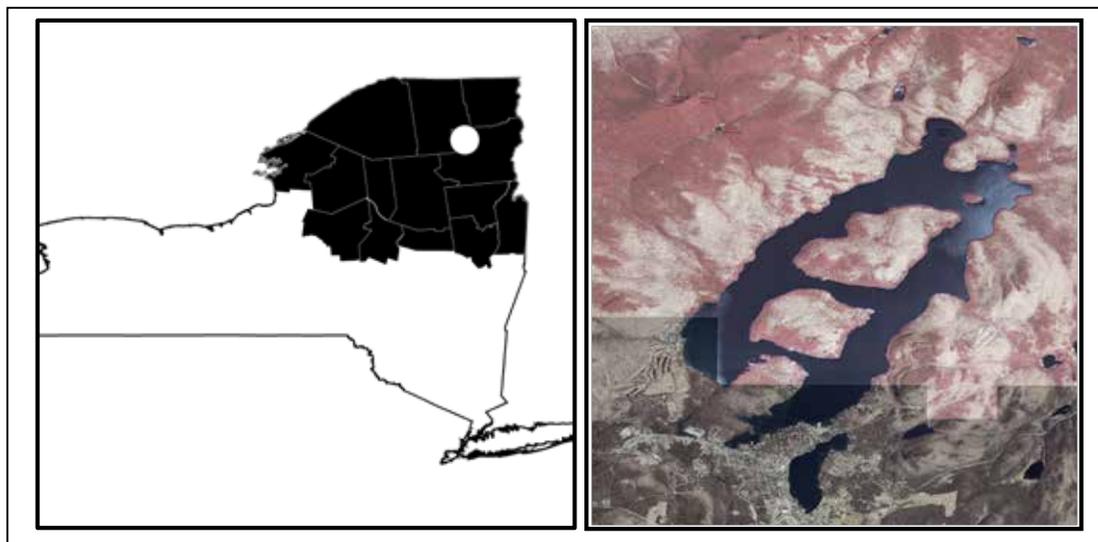
Supported / Good
 Threatened / Fair
 Stressed / Poor
 Impaired
 Not Known

CSLAP 2015 Lake Water Quality Summary: Lake Placid

General Lake Information

Location	Town of North Elba
County	Essex
Basin	Lake Champlain
Size	1,134 hectares (2,801 acres)
Lake Origins	Natural
Watershed Area	5,140 hectares (12,700 acres)
Retention Time	5.4 years
Mean Depth	8.8 meters
Sounding Depth	50 meters
Public Access?	DEC launch
Major Tributaries	Two Brooks, Minnow Brook
Lake Tributary To...	unnamed outlet to Chubb River to West Branch Ausable River to Ausable River to Lake Champlain
WQ Classification	AAspec (potable water)
Lake Outlet Latitude	44.304
Lake Outlet Longitude	-73.995
Sampling Years	1991-2015
2015 Samplers	Mark Wilson and Mary Thill
Main Contact	Mark Wilson

Lake Map



Background

Lake Placid is a 2802 acre, class AA_{special} lake found in the Town of North Elba in Essex County, in the northern Adirondack region of New York State. It was first sampled as part of CSLAP in 1991.

It is one of nine CSLAP lakes among the more than 500 lakes and ponds found in Essex County, and one of 17 CSLAP lakes among the nearly 650 lakes and ponds in the Lake Champlain drainage basin.

Lake Uses

Lake Placid is a Class AA_{special} lake; this means that the best intended use for the lake is for potable water—drinking, contact recreation—swimming and bathing, aquatic life, and aesthetics. The lake is used by lake residents and the public for a variety of recreational purposes—the lake can be accessed via a DEC boat launch site.

Lake Placid is regularly stocked with approximately 8,500 eight inch and 1,000 13 inch rainbow trout. It is not known by the report authors if Lake Placid has been stocked by lake residents or municipal officials. Other fish species in the lake include brown bullhead, largemouth bass, lake trout, rock bass, smallmouth bass, and yellow perch.

General statewide fishing regulations are applicable in Lake Placid. In addition, the open season on lake trout runs from April 1st—October 15th, with a 15 inch size limit and a daily take limit of three fish. The open season for yellow perch and sunfish lasts all year, with no take or size limits.

Historical Water Quality Data

CSLAP sampling was conducted on Lake Placid from 1991 to 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 Lake Placid can also be found on the NYSDEC web page at <http://www.dec.ny.gov/lands/77872.html>.

Lake Placid has been sampled by the NYSDEC as part of a Division of Water monitoring program in 1975. In this limited study, nitrate and conductivity readings were slightly lower, but other water quality indicators demonstrated conditions very similar to those measured through CSLAP. Lake Placid is also included in the statewide fisheries database. The data from both monitoring programs are comparable.

None of the major Lake Placid tributaries (Two Brooks, Minnow Brook, Falls Brook, Whiteface Brook), nor the outlet have been monitored through the NYSDEC Rotating Intensive Basins (RIBS) program. The outlet was sampled through the state stream macroinvertebrate monitoring program, but these results are not available

Lake Association and Management History

Lake Placid is represented by the Shoreowners Association of Lake Placid, a very active lake association founded in 1893. The lake association has been involved in a variety of lake management activities, including:

- once maintained buoy system- now taken over by DEC
- producing and circulating educational materials about boating rules and water quality issues for property owners and renters via 2x annual newsletter, other sources
- monitoring water quality through CSLAP and bacterial testing
- clearing of debris from the Lake and shoreline
- maintaining the level of Lake Placid through continued ownership and maintenance of the outlet dam
- promoting navigational and water safety by offering boat safety courses
- promoting water and land fire safety
- protecting land and property values
- lake stewardship program in cooperation with Village of Lake Placid and Mirror Lake Watershed Association- invasive species inspection/motorboat survey at boat launch near Lake Placid Marina
- invasive species prevention and control advocacy
- septic pumpout program for lake residents coordinated by association

The Shoreowners Association of Lake Placid maintains a website at <http://www.lpsoa.org/index.html> .

Summary of 2015 CSLAP Sampling Results

Evaluation of 2014 Annual Results Relative to 1991-2014

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

Evaluation of Eutrophication Indicators

Water clarity, nutrient and algae levels were close to the long-term average for Lake Placid in 2014 and 2015. Water clarity has decreased slightly since the early 1990s, but nutrient and algae levels have not exhibited similar (weak) long-term changes.

Lake productivity typically increases slightly during the summer—water clarity readings drop slightly in response to slightly increasing algae and nutrient levels. However, no seasonal changes were apparent in 2015. It is likely that the small differences in these trophic indicators are often more closely tied to short-term weather changes than actual seasonal changes.

The lake continues to be characterized as *oligotrophic*, based on water clarity, chlorophyll *a* and total phosphorus readings. The trophic state indices (TSI) evaluation indicates that algae levels may be slightly higher than expected given the nutrient and water transparency readings in the lake. This suggests that small changes in phosphorus may result in larger changes in algae levels, although this may not result in changes in water clarity. 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, although any intakes near sporadic and small shoreline algae blooms may be compromised. Deepwater ammonia, phosphorus, iron, and arsenic readings are low and similar to those measured at the lake surface, although iron and manganese have not been measured in recent years. Previous data suggests that deepwater potable intakes should not be compromised. Potable water conditions, at least as measurable through CSLAP, are summarized in the Lake Scorecard and Lake Condition Summary Table.

Evaluation of Limnological Indicators

pH readings were close to normal in 2015, but these readings may have increased slightly over the last few decades. A small long term increase in color is more likely due to the change in laboratories in 2002—there is no evidence (based on water clarity readings) that these higher measurements were “real”. None of these other indicators has exhibited a clear long-term trend. It is likely that the small changes in these other indicators from year to year represent normal variability, since none of these indicators has exhibited any long-term changes.

Chloride levels in the 2015 samples, conducted for the first time through CSLAP and cited in Appendix A, were less than 5 mg/l. These values are below the range of “low road salt” runoff levels cited by the New Hampshire DES, well below the state potable water quality standard of 250 mg/l and well below the range of values found in most NYS lakes.

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

Evaluation of Biological Condition

The fluoroprobe blue green algae levels from the last few years indicated both very low algae levels and a low percentage of blue green algae in the open water. Shoreline blooms have been reported in some years. In mid-October of 2013, a small bloom was comprised of *Tabularia* and other diatoms, with sparse *Lyngbya* (a blue green algae). A similar shoreline bloom sample in 2014 was comprised primarily of green algae, cryptophytes and diatoms, with small amounts of *Microcystis*. In 2015, small shoreline blooms were also reported in mid-summer along the south and southwest shoreline. These were comprised of a mix of diatoms and blue green algae, including *Planktothrix*, *Anabaena* and *Aphanizomenon*. It is not known if this was the result of localized nutrient inputs or wind-concentrated from the open water, or if this increase in cyanobacteria levels is part of a trend

The macrophyte data collected through CSLAP and the Adirondack Park Invasive Plant Program (APIPP) have shown modest plant diversity, but this may change with the variable watermilfoil finding in the lake in 2009. The modified FQI suggests that the quality of the aquatic plant community is “excellent.”

Neither zooplankton nor macroinvertebrates have been monitored through CSLAP in Lake Placid. Zebra mussels are not found in the lake. The fisheries information in the lake indicates

that Lake Placid is a two stage fishery, with at least two coldwater and two coolwater fish species.

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

Evaluation of Lake Perception

Aquatic plant coverage has been slightly higher than normal in recent years, including 2015, part of a long-term increase in plant coverage first recorded in the mid-2000s. It is not known if this is due to native or invasive plants, particularly since variable leaf watermilfoil (*Myriophyllum heterophyllum*) has been found in the lake. Water quality assessments were more favorable than normal in 2015, but both water quality and recreational assessments have degraded over the last half decade.

Water quality and recreational assessments typically degrade during the summer, consistent with a seasonal increase in lake productivity and aquatic plant coverage. This was generally apparent in 2015.

Overall lake perception is summarized on the Lake Scorecard and Lake Condition Summary Table.

Evaluation of Local Climate Change

Water temperature readings were slightly higher than usual in 2015, but these readings have not exhibited any significant change since the early 1990s.

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 consistently been below the thresholds for harmful algal blooms (HABs) in the open water. An analysis of open water algae samples indicate essentially undetectable microcystin levels.

However, algal toxin readings within some shoreline blooms are detectable, though below the threshold for safe swimming, and anatoxin levels at times are elevated. Some of these samples show readings close to or slightly above the level associated with the threshold associated with safe drinking water, but it is not known if this represents an elevated risk near any actual intakes. Lake residents are advised to avoid contact with any shoreline blooms, and to avoid blooms for water intake.

Lake Condition Summary

Category	Indicator	Min	Overall Avg	Max	2015 Avg	Classification	2015 Change?	Long-term Change?
Eutrophication Indicators	Water Clarity	4.63	7.68	12.13	8.10	Oligotrophic	Within Normal Range	No Change
	Chlorophyll <i>a</i>	0.10	1.74	6.30	1.70	Oligotrophic	Within Normal Range	No Change
	Total Phosphorus	0.000	0.004	0.032	0.005	Oligotrophic	Within Normal Range	No Change
Potable Water Indicators	Hypolimnetic Ammonia	0.01	0.04	0.36	0.04	Close to Surface NH4 Readings	Within Normal Range	Not known
	Hypolimnetic Arsenic	0.50	0.66	1.00		Low Deepwater Arsenic Levels		Not known
	Hypolimnetic Iron	0.01	0.03	0.11		Low Iron Levels		Not known
	Hypolimnetic Manganese	0.01	0.04	0.15		Low Manganese Levels		Not known
Limnological Indicators	Hypolimnetic Phosphorus	0.000	0.006	0.026	0.006	Close to Surface TP Readings	Within Normal Range	Not known
	Nitrate + Nitrite	0.00	0.10	0.60	0.10	Low NOx	Within Normal Range	No Change
	Ammonia	0.00	0.03	0.13	0.03	Low Ammonia	Within Normal Range	No Change
	Total Nitrogen	0.00	0.37	1.92	0.31	Low Total Nitrogen	Within Normal Range	No Change
	pH	6.18	7.43	9.23	7.65	Circumneutral	Within Normal Range	No Change
	Specific Conductance	16	31	80	28	Softwater	Within Normal Range	No Change
	True Color	1	6	28	8	Uncolored	Within Normal Range	Increasing Significantly
	Calcium	1.3	3.7	6.7	3.2	Not Susceptible to Zebra Mussels	Lower Than Normal	No Change
Lake Perception	WQ Assessment	0	1.6	3	1.3	Not Quite Crystal Clear	Within Normal Range	Slightly Degrading
	Aquatic Plant Coverage	0	1.6	3	1.9	Subsurface Plant Growth	Within Normal Range	Substantially Increasing
	Recreational Assessment	0	1.3	4	1.1	Could Not Be Nicer	Within Normal Range	Slightly Degrading
Biological Condition	Phytoplankton					Open water-low blue green algae biomass; Shoreline-high blue green algae in bloom	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 stage fishery	Not known	Not known
	Invasive Species					Brown trout, rainbow trout, variable watermilfoil	Not known	Not known
Local Climate Change	Air Temperature	4	17.9	28	17.3		Within Normal Range	No Change
	Water Temperature	7	18.0	29	19.5		Higher Than Normal	No Change

Category	Indicator	Min	Overall Avg	Max	2015 Avg	Classification	2015 Change?	Long-term Change?
Harmful Algal Blooms	Open Water Phycocyanin	0	4	25	5	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	2	0	No readings indicate high BGA levels	Not known	Not known
	Open Water Microcystis	<DL	<DL	0.5	<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
	Shoreline FP Chl.a	0	203	1284	244	Most readings indicate high algae levels	Not known	Not known
	Shoreline FP BG Chl.a	0	157	1251	201	Most readings indicate high BGA levels	Not known	Not known
	Shoreline Microcystis	<DL	1.2	3.6	1.2	At times measurable shoreline bloom MC-LR	Not known	Not known
	Shoreline Anatoxin a	<DL	1.2	5.9	0.7	Shoreline bloom Anatoxin-a at times detectable	Not known	Not known

Evaluation of Lake Condition Impacts to Lake Uses

The 2009 NYSDEC Priority Waterbody Listings (PWL) for the Lake Champlain drainage basin indicates that water supply in Lake Placid is *threatened* due to its AA_{special} classification. The PWL listing for the lake is found in Appendix B.

Potable Water (Drinking Water)

The CSLAP dataset at Lake Placid, including water chemistry data, physical measurements, and volunteer samplers' perception data, is inadequate to evaluate the use of the lake for potable water. However, the limited data suggest that potable water use may be supported from both surface and deepwater intakes in the open water.

Public Bathing

The CSLAP dataset at Lake Placid, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggests that public bathing should be supported.

Recreation (Swimming and Non-Contact Uses)

The CSLAP dataset on Lake Placid, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that recreation should be supported, although this use may be *threatened* by the presence of periodic shoreline algae blooms.

Aquatic Life

The CSLAP dataset on Lake Placid, 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 the presence of exotic plant and animal species. Additional data are needed to evaluate the food and habitat conditions for aquatic organisms in the lake.

Aesthetics and Habitat

The CSLAP dataset on Lake Placid, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that aesthetics should be *good*. Habitat in some locations may be only *fair* due to invasive plants (variable watermilfoil).

Fish Consumption

There are no fish consumption advisories posted for Lake Placid.

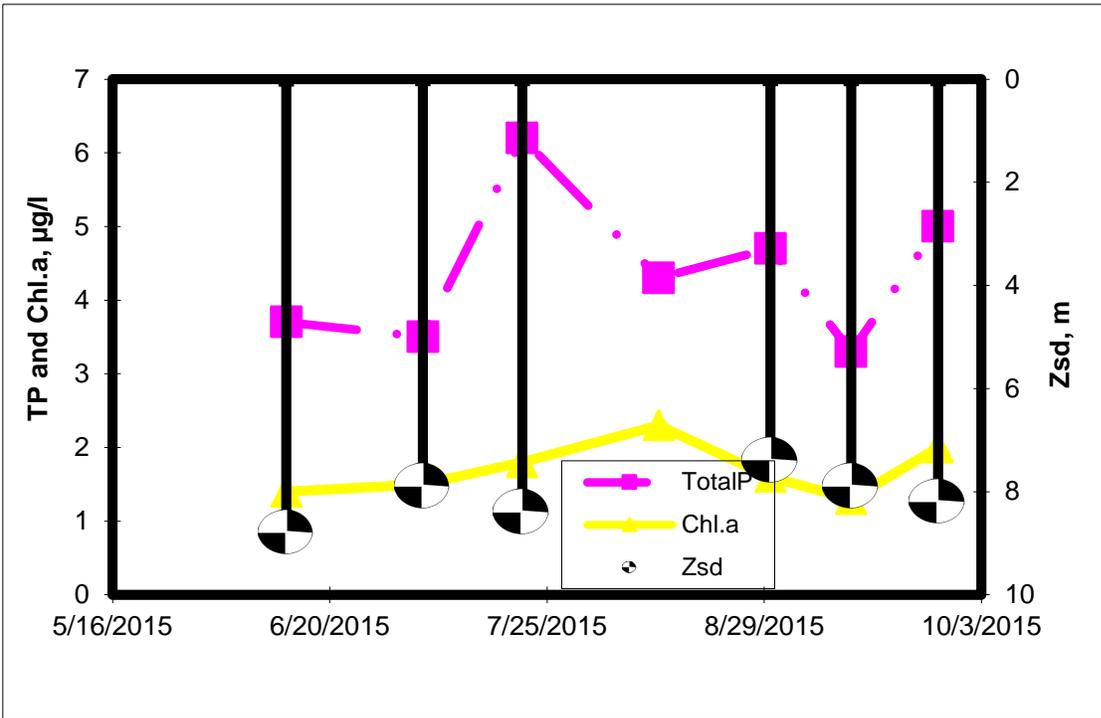
Additional Comments and Recommendations

Continuing plant surveys should be conducted to determine if the plant community is compromised by the presence of variable watermilfoil, and if this exotic plant has migrated to other locations. It is not known if the swimmers itch problems reported in previous years have continued in the lake. Lake residents should continue to report and avoid exposure to any shoreline blooms. Inputs of nutrients and other materials to the lake should continue to be watched, given a slight decrease in water clarity in recent years.

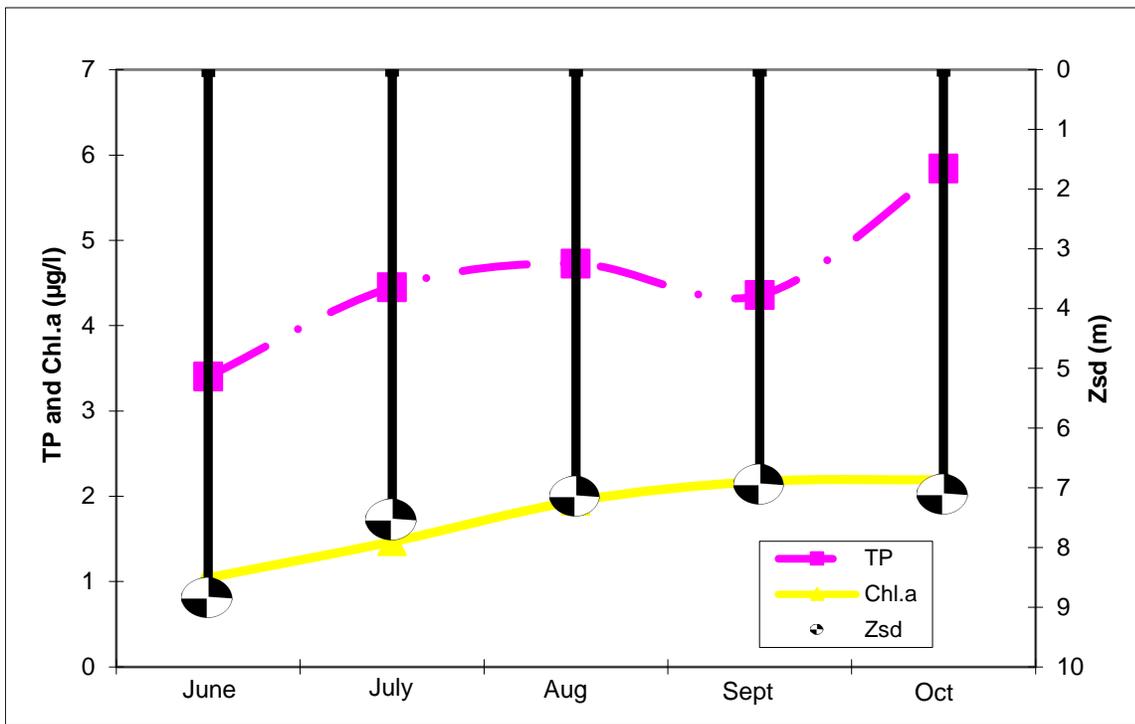
Aquatic Plant IDs-2015

None submitted for identification in 2015.

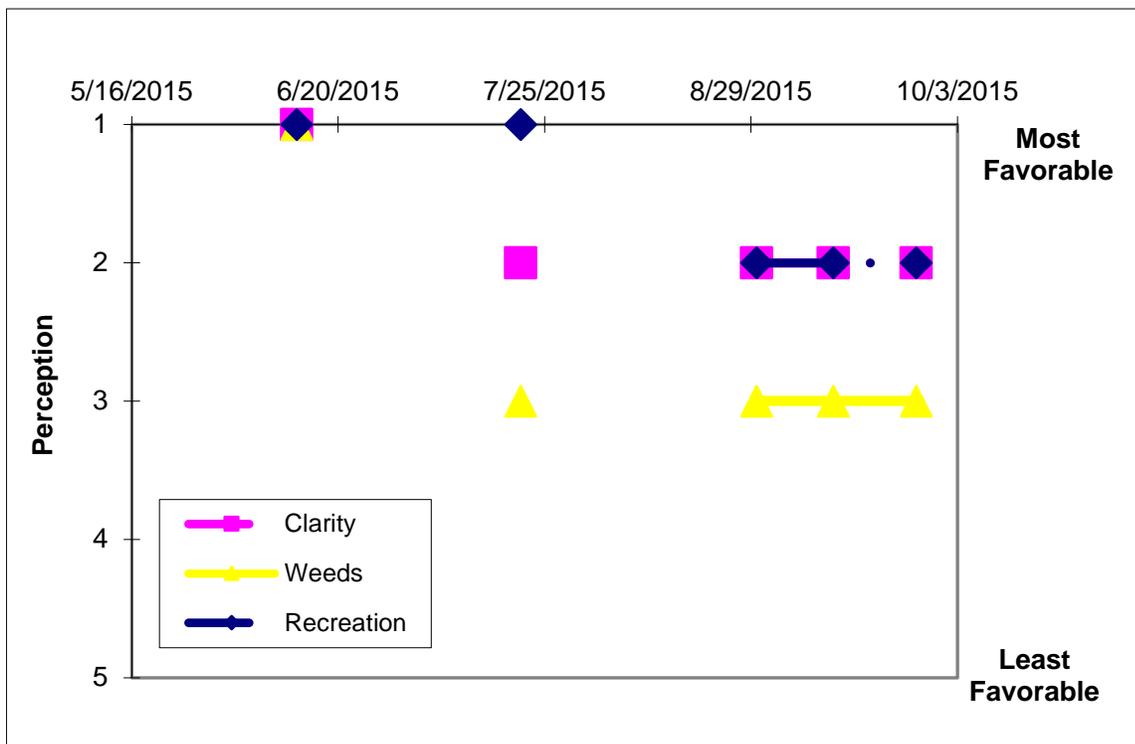
Time Series: Trophic Indicators, 2015



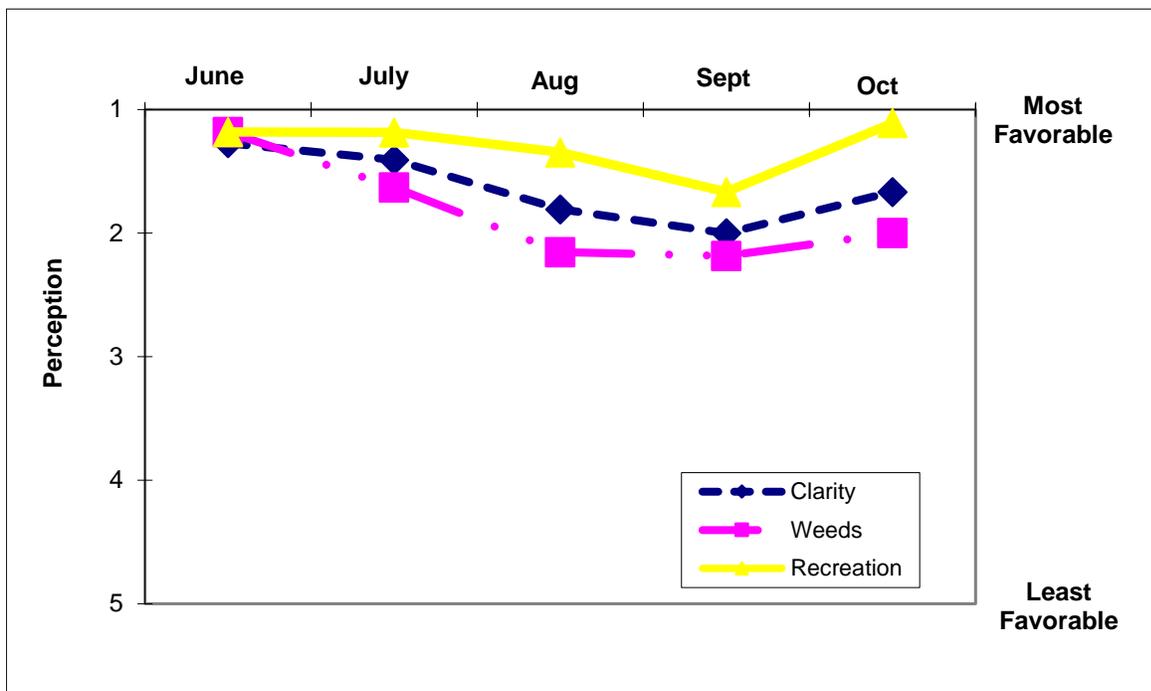
Time Series: Trophic Indicators, Typical Year (1991-2015)



Time Series: Lake Perception Indicators, 2015



Time Series: Lake Perception Indicators, Typical Year (1991-2015)



Appendix A- CSLAP Water Quality Sampling Results for Lake Placid

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
88	L Placid	7/6/1991	56.0	8.63	1.5	0.008	0.19				9	7.22	36		1.39	
88	L Placid	7/14/1991	56.0	8.25	1.5	0.010	0.29				6	7.32	37		1.17	
88	L Placid	7/21/1991	56.0	8.63	1.5	0.007	0.24				13	7.17	36		1.23	
88	L Placid	8/4/1991	56.0	8.50	1.5	0.014	0.21				4	7.34	35		1.39	
88	L Placid	8/11/1991	56.0	8.38	1.5	0.010	0.15				4	7.60	36		1.32	
88	L Placid	8/18/1991	56.0	8.00	1.5	0.007	0.19				4	7.48	36		1.89	
88	L Placid	8/25/1991	56.0	8.00	1.5	0.007	0.12				5	7.70	36		2.20	
88	L Placid	6/10/1992	56.0	9.25	1.5	0.003	0.23				3	7.55	35		1.14	
88	L Placid	6/26/1992	56.0	9.13	1.5	0.005	0.18				6	7.54	36		1.00	
88	L Placid	7/10/1992	56.0	8.50	1.5	0.003	0.19				4	7.63	35		1.64	
88	L Placid	7/26/1992	56.0	9.13	1.5	0.005	0.17				2	7.02	36		1.14	
88	L Placid	8/10/1992	56.0	9.13	1.5	0.003	0.15				4	7.58	36		1.25	
88	L Placid	8/24/1992	56.0	8.88	1.5	0.003	0.14				4	7.48	35		1.72	
88	L Placid	9/7/1992	56.0	7.25	1.5	0.004	0.11				3	7.38	35		1.77	
88	L Placid	9/21/1992	56.0	6.88	1.5	0.003	0.12				8	7.46	35		0.34	
88	L Placid	6/6/1993	56.0	8.00	1.5	0.006	0.18				4	7.04	33		0.54	
88	L Placid	6/20/1993	56.0	8.13	1.5	0.004	0.19				2	7.45	34		0.69	
88	L Placid	7/5/1993	56.0	9.38	1.5	0.004	0.19				1	7.05	34		0.64	
88	L Placid	7/18/1993	56.0	9.88	1.5	0.003	0.15				1	7.54	34		0.89	
88	L Placid	7/30/1993	56.0	9.75	1.5	0.002	0.17				2	7.63	34		0.82	
88	L Placid	8/13/1993	56.0	9.38	1.5	0.003	0.12				2	7.70	34		1.34	
88	L Placid	8/30/1993	56.0	9.38	1.5	0.005	0.10				3	7.44	34		2.12	
88	L Placid	9/12/1993	56.0	7.75	1.5	0.003	0.10				4	7.73	34		3.25	
88	L Placid	6/12/1994	56.0	7.50	1.5	0.007	0.16				2	7.26	33		0.65	
88	L Placid	6/27/1994	56.0	7.50	1.5	0.005	0.16				3	7.29	34		1.65	
88	L Placid	7/10/1994	56.0	7.38	1.5	0.003	0.15				2	7.47	33		2.06	
88	L Placid	7/24/1994	56.0	8.75	1.5	0.004	0.11				2	7.33	34		1.04	
88	L Placid	8/7/1994	56.0	8.63	1.5	0.003	0.10				3	7.42	33		2.88	
88	L Placid	8/22/1994	54.0	7.00	1.5	0.003	0.08				4	7.56	33		4.05	
88	L Placid	9/4/1994	54.0	6.00	1.5	0.004	0.07				2	7.27	33		3.72	
88	L Placid	9/18/1994	54.0	5.63	1.5	0.006	0.05				3	7.46	33		4.07	
88	L Placid	6/25/1995	56.0			0.003	0.14				5	7.44	34		1.22	
88	L Placid	7/9/1995	56.0	8.50	1.5	0.002					1	7.18	25		1.33	
88	L Placid	7/23/1995	56.0	8.25	1.5	0.003	0.12				1	7.25	35		1.36	
88	L Placid	8/6/1995	56.0	8.00	1.5	0.008	0.11				1	7.24	35		1.26	
88	L Placid	8/20/1995	56.0	10.00	1.5	0.002	0.08				1	7.25	37		1.22	
88	L Placid	9/3/1995	56.0	8.50	1.5	0.003	0.07				5	7.19	36		2.08	
88	L Placid	9/17/1995	56.0	6.63	1.5	0.003	0.06				5	7.18	35		2.49	
88	L Placid	10/1/1995	56.0	7.25	1.5	0.006	0.06				5	7.10	36		2.39	
88	L Placid	6/30/1996	56.0	6.63	1.5	0.005	0.13				1	7.02	35		2.10	
88	L Placid	7/28/1996	56.0	8.25	1.5	0.006	0.11				10	7.14	33		0.37	
88	L Placid	9/1/1996	56.0	8.13	1.5	0.007	0.07				5	7.16	35		3.00	
88	L Placid	9/30/1996	56.0	6.50	1.5	0.005	0.05				5	7.32	36		2.48	
88	L Placid	6/29/1997	56.0	10.50	1.5	0.004	0.16				5	7.74	33		0.63	
88	L Placid	7/27/1997	56.0	10.25	1.5	0.005	0.16				5	7.05	33		0.83	
88	L Placid	9/1/1997	56.0	8.50	1.5	0.004	0.11				6	7.85	33		3.55	
88	L Placid	9/27/1997	56.0	7.38	1.5	0.005	0.09				6	7.47	33		3.27	
88	L Placid	7/12/1998	56.0	8.00	1.5	0.006	0.12				3	7.58	30		1.05	
88	L Placid	8/30/1998	56.0	7.13	1.5	0.005	0.06				8	6.88	32		2.81	
88	L Placid	9/9/1998	56.0	7.88	1.5	0.003	0.06				2	7.44	30		1.69	
88	L Placid	9/27/1998	56.0	6.25	1.5	0.005	0.05				7	7.44	32		1.81	
88	L Placid	6/27/1999	56.0	12.13	1.5	0.003	0.12				1	7.21	34		0.10	
88	L Placid	7/25/1999	56.0	7.88	1.5	0.005	0.11				4	7.88	34		1.12	
88	L Placid	8/2/1999	56.0	9.25	1.5	0.001	0.06				3	6.18	38		2.00	
88	L Placid	9/19/1999	56.0	7.38		0.004	0.05				2	7.34	32		2.24	
88	L Placid	6/25/2000	54.0	7.25	1.5	0.002	0.13				6	7.93	31		0.88	
88	L Placid	7/23/2000	54.0	7.00	1.5	0.004	0.09				4	7.08	31		1.53	
88	L Placid	9/4/2000	54.0	6.25	1.5	0.005	0.04				6	6.95	31		3.46	
88	L Placid	9/23/2000	54.0	5.13	1.5	0.009	0.03				5	7.63	32		4.98	
88	L Placid	7/1/2001	54.0	8.88	1.5	0.004	0.15				4	6.91	32		0.93	
88	L Placid	7/29/2001	54.0	7.78	1.5	0.004	0.12				3	7.95	32		1.60	
88	L Placid	8/26/2001	55.0	7.38	1.5	0.003	0.08				3	7.35	33		1.97	
88	L Placid	9/23/2001	55.0	6.38	1.5	0.006	0.06				6	7.90	31		2.19	

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
88	L Placid-1	7/3/2002		8.60	1.5			0.07			8	6.76	30	1.3	1.09	
88	L Placid-1	7/28/2002		9.90	1.0		0.08	0.08	0.46		6	6.90	30		0.94	
88	L Placid-1	9/1/2002		7.30	2.0	0.004	0.07	0.01	0.43	253.67	6				1.12	
88	L Placid-1	10/12/2002		5.35		0.003	0.03	0.04	0.33	229.41	9	7.15	31		1.36	
88	L Placid-1	6/23/2003		10.38		0.004	0.16	0.00	0.18	104.11	4	7.10	27	6.4	0.36	
88	L Placid-1	8/2/2003		9.38			0.00	0.00	0.00		9	7.00	31			
88	L Placid-1	8/31/2003		7.63		0.002	0.07	0.01	0.31	317.88	6	6.87	31		2.01	
88	L Placid-1	10/3/2003		6.13		0.004	0.05	0.01	0.22	107.97	12	7.20	32	3.9	2.86	
88	L Placid	6/30/2004	~50	8.10	1.0		0.13	0.01	0.40							
88	L Placid	7/18/2004		8.10	1.0	0.004	0.15	0.02	0.45	276.74	4	6.80	35		1.00	
88	L Placid	8/1/2004	~50	6.90		0.004	0.08	0.02	0.12	62.38	8	6.60	33		0.40	
88	L Placid	8/14/2004	~60	6.10	1.5	0.007	0.01	0.02	0.25	76.58		7.59	34		1.90	
88	L Placid	9/1/2004		7.40		0.003	0.09	0.02	0.48	381.31	5	7.42	28		2.22	
88	L Placid	9/13/2004	~60	6.40		0.001	0.05	0.01	0.29	784.37	6	7.89	24	3.9	1.10	
88	L Placid	10/3/2004		7.38		0.004	0.04	0.03	0.33	186.78	10	7.69	25		0.50	
88	L Placid-1	6/26/2005		9.13		0.001	0.04	0.01	0.32	703.64	3	7.28	18	3.7	0.99	
88	L Placid-1	7/10/2005		8.88		0.010	0.01	0.11	0.16	35.37	11	7.60	34		1.22	
88	L Placid-1	7/23/2005		7.88		0.004	0.01	0.09	0.26	154.58	5	8.36	25		1.53	
88	L Placid-1	8/8/2005	~50	8.13	2.0	0.009		0.08	0.27	66.80	5	7.39	26		1.30	
88	L Placid-1	8/21/2005	~50	7.88	2.0	0.000	0.05	0.05	0.28	1572.13	10	7.55	25	2.1	1.86	
88	L Placid-1	9/2/2005	~50	7.88		0.004	0.01	0.04	0.13	65.38	2	7.88	29		1.26	
88	L Placid-1	9/19/2005	~50	8.63	1.0	0.004	0.01	0.05	0.14	68.32	3	8.07	27		1.80	
88	L Placid-1	10/3/2005	~50	8.38	1.0	0.005	0.01	0.03	0.16	76.63	9	7.97	32		1.59	
88	L Placid-1	6/25/2006	50.0	8.88	1.0	0.000	0.15	0.02	0.61	4470.47	22	6.82	28	3.3	0.99	
88	L Placid-1	7/15/2006	~50			0.001	0.12	0.02	0.55	1509.67		6.34	28		0.93	
88	L Placid-1	7/30/2006	~50	7.13	1.0	0.002	0.09	0.02	0.42	617.26	19	8.24	27		1.48	
88	L Placid-1	8/13/2006	~50	5.38	1.0	0.002	0.10	0.03	0.64	670.15	7	7.66	27		2.21	
88	L Placid-1	8/28/2006	~50	4.88	1.0	0.005	0.06	0.02	0.44	210.75		7.44	25	3.6	3.12	
88	L Placid-1	9/12/2006	~50	5.88	1.0	0.004	0.06	0.03	0.96	557.06	6	7.2	24		2.61	
88	L Placid-1	9/26/2006	~50	5.13	1.0	0.005	0.04	0.04	0.41	176.87	13	6.94	25		3.13	
88	L Placid-1	10/9/2006	~50	7.13	1.0	0.005	0.07	0.02	0.50	227.49		6.75	27		2.06	
88	L Placid-1	7/1/2007	50.0	7.38		0.007	0.60	0.02	1.19	390.65	6	8.69	30	3.9	1.07	
88	L Placid-1	7/16/2007	50.0	8.38		0.002	0.24	0.02	0.52	714.93	5	7.75	80		1.25	
88	L Placid-1	7/29/2007	50.0	9.13		0.004	0.22	0.01	0.64	334.99	5	7.71	31		1.06	
88	L Placid-1	8/12/2007	50.0	8.38	1.5	0.006	0.17	0.01	0.54	204.24	7	9.13	44		1.56	
88	L Placid-1	9/1/2007		7.13		0.005	0.16	0.01	0.49	199.17	7	7.46	23	3.4	2.08	
88	L Placid-1	9/16/2007	50.0	7.88	1.0	0.005	0.09	0.01	0.49	213.79	8	7.73	35		2.31	
88	L Placid-1	9/30/2007	50.0	7.63	1.5	0.009	0.10	0.01	0.46	107.92	5	7.52	30		1.98	
88	L Placid-1	6/30/2008	50.0	8.88	1.0	0.004	0.15	0.03	0.49	264.11	5	7.48	24	3.1	1.66	
88	L Placid-1	7/19/2008	50.0	7.25	1.5	0.003	0.16	0.02	0.49	399.48	5	6.42	21		0.97	
88	L Placid-1	8/4/2008	50.0	7.88	1.5	0.005	0.11	0.02	0.42	188.51	7	7.28	32		1.55	
88	L Placid-1	8/18/2008	50.0	7.25	1.5	0.004	0.10	0.02	0.25	154.47	4	8.04	26		1.78	
88	L Placid-1	9/2/2008	50.0	7.38	1.5	0.003	0.08	0.02	0.23	156.55	7	7.55	27	3.0	2.02	
88	L Placid-1	9/17/2008	50.0		1.5	0.004	0.07	0.01	0.23	117.01	1	7.58	29		0.97	
88	L Placid-1	10/4/2008		5.63		0.004	0.06	0.02	0.26	157.01	6	6.72	31		2.23	
88	L Placid	7/5/1993	56.0		29.0	0.004										
88	L Placid	7/18/1993	56.0		29.0	0.006										
88	L Placid	8/30/1993	56.0		29.0	0.004										
88	L Placid	9/12/1993	56.0		29.0	0.032										
88	L Placid	7/10/1994	56.0		27.0	0.005										
88	L Placid	7/24/1994	56.0		27.0	0.005										
88	L Placid	8/22/1994	54.0		27.0	0.005										
88	L Placid	9/18/1994	54.0		27.0	0.006										
88	L Placid	10/12/2002				0.002	0.08	0.06	0.38	176.82						
88	L Placid	8/31/2003				0.004	0.15	0.02	0.55	134.82						
88	L Placid	10/3/2003				0.002	0.13	0.04	1.92	899.15						
88	L Placid-1	6/30/2004	~50			0.003	0.03	0.02	0.34	104.50	3	7.66	23			
88	L Placid-1	7/18/2004				0.003	0.08	0.01	0.46	141.12						
88	L Placid-1	8/1/2004	~50			0.004	0.07	0.01	0.52	134.61						
88	L Placid-1	8/14/2004	~60			0.001	0.13	0.04	0.32	334.87						
88	L Placid-1	9/1/2004				0.005	0.15	0.05	0.74	164.55						
88	L Placid-1	9/13/2004	~60			0.003	0.16	0.04	0.64	192.52						
88	L Placid-1	10/3/2004				0.004		0.03	0.41	104.63						
88	L Placid-1	6/26/2005			30.0	0.003										
88	L Placid-1	7/10/2005			30.0	0.005										
88	L Placid-1	7/23/2005			30.0	0.004										

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
88	L Placid-1	8/8/2005			30.0	0.001										
88	L Placid-1	8/21/2005			30.0	0.006										
88	L Placid-1	9/2/2005			30.0	0.004										
88	L Placid-1	9/19/2005			30.0	0.004										
88	L Placid-1	10/3/2005			30.0	0.003										
88	L Placid-1	6/25/2006	50.0		30.0	0.003										
88	L Placid-1	7/15/2006	~50		30.0	0.003										
88	L Placid-1	7/30/2006	~50		30.0	0.003										
88	L Placid-1	8/13/2006	~50		30.0	0.003										
88	L Placid-1	8/28/2006	~50		30.0	0.004										
88	L Placid-1	9/12/2006	~50		30.0	0.003										
88	L Placid-1	9/26/2006	~50		30.0	0.003										
88	L Placid-1	10/9/2006	~50		30.0	0.004										
88	L Placid-1	7/1/2007	50.0			0.005										
88	L Placid-1	7/16/2007	50.0		30.0	0.004										
88	L Placid-1	7/29/2007	50.0		30.0	0.007										
88	L Placid-1	8/12/2007	50.0		30.0	0.005										
88	L Placid-1	9/1/2007				0.005										
88	L Placid-1	9/16/2007	50.0		30.0	0.002										
88	L Placid-1	9/30/2007	50.0		30.0	0.004										
88	L Placid-1	6/30/2008	50.0		30.0	0.005										
88	L Placid-1	7/19/2008	50.0		30.0	0.004										
88	L Placid-1	8/4/2008	50.0		30.0	0.006										
88	L Placid-1	8/18/2008	50.0		30.0	0.004										
88	L Placid-1	9/2/2008	50.0		30.0	0.003										
88	L Placid-1	9/17/2008	50.0		30.0	0.004										
88	L Placid-1	10/4/2008				0.001										
88.1	L Placid-2	9/1/1996	56.0			0.005	0.07				5	7.10	34		3.00	
88.1	L Placid-2	9/30/1996	56.0			0.004	0.05				5	7.62	35		2.06	
88.1	L Placid-2	6/29/1997	15.0	10.00	1.5	0.004	0.16				5	7.36	33		0.58	
88.1	L Placid-2	7/27/1997	15.0	10.00	1.5	0.003	0.15				5	7.07	33		0.77	
88.1	L Placid-2	9/1/1997	15.0	7.63	1.5	0.003	0.11				6	7.30	35		3.01	
88.1	L Placid-2	9/27/1997	15.0	6.88	1.5	0.004	0.09				4	7.37	34		2.87	
88.1	L Placid-2	7/12/1998	15.0	7.25	1.5	0.004	0.12				3	7.33	30		1.51	
88.1	L Placid-2	8/30/1998	15.0	6.88	1.5	0.004	0.06				8	7.04	32		0.19	
88.1	L Placid-2	9/9/1998	15.0	6.80	1.5	0.002	0.06				2	7.11	31		1.68	
88.1	L Placid-2	9/27/1998	15.0	5.50	1.5	0.013	0.05				6	7.20	32		1.87	
88.1	L Placid-2	6/27/1999	15.0	10.75	1.5	0.002	0.12				1	7.10	33		0.36	
88.1	L Placid-2	7/25/1999	15.0	7.38	1.5	0.004	0.10				5	7.53	32		1.12	
88.1	L Placid-2	8/2/1999	15.0	7.25	1.5	0.001	0.06				5	6.46	33		2.24	
88.1	L Placid-2	9/19/1999	15.0	6.38	1.5	0.004	0.04				2	7.25	33		4.11	
88.1	L Placid-2	6/25/2000	54.0	6.75	1.5	0.005	0.14				6	6.86	31		1.10	
88.1	L Placid-2	7/23/2000	54.0	7.63	1.5	0.001	0.10				3	6.96	32		1.55	
88.1	L Placid-2	9/4/2000	54.0	6.25	1.5	0.004	0.04				6	6.98	32		1.22	
88.1	L Placid-2	9/23/2000	15.0	4.88	1.5	0.006	0.02				5	7.86	32		4.16	
88.1	L Placid-2	7/1/2001	54.0	7.88	1.5	0.003	0.16				3	6.98	32		0.92	
88.1	L Placid-2	7/29/2001	54.0	7.88		0.003	0.11				3	7.69	32		1.42	
88.1	L Placid-2	8/26/2001	55.0	7.13	1.5	0.002	0.08				1	7.18	32		1.88	
88.1	L Placid-2	9/23/2001	15.0	5.88	1.5	0.005	0.06				6	6.53	32		2.52	
88.1	L Placid-2	7/3/2002		7.10	1.5	0.007	0.11	0.05	0.47	151.27	7	7.04	30		0.79	
88.1	L Placid-2	7/28/2002					0.08	0.08	0.40		8	7.01	30		0.90	
88.1	L Placid-2	9/1/2002				0.002	0.05	0.05	0.36	424.88	5	7.25	29		1.50	
88.1	L Placid-2	10/12/2002				0.004	0.03	0.04	0.33	208.80	8	6.52	31		1.98	
88.1	L Placid-2	6/23/2003		9.13		0.004	0.16	0.00	0.18	99.34	2	6.54	29	6.7	0.56	
88.1	L Placid-2	8/2/2003		9.88		0.007	0.05	0.01	0.37	108.78	9	6.90	31		0.91	
88.1	L Placid-2	8/31/2003		7.38		0.005	0.08	0.02	0.44	191.54	6	7.19	31		2.79	
88.1	L Placid-2	10/3/2003		6.13		0.006	0.05	0.01	0.47	151.27	12			3.8	3.59	
88.1	L Placid-2	8/31/2003				0.008	0.13	0.02	0.40							
88.1	L Placid-2	10/3/2003				0.025	0.11	0.03	0.26	93.41						
88.1	L Placid-2	6/30/2004	~15	7.60	1.0	0.003	0.03	0.02	0.48	125.62	5	6.76	31		1.40	
88.1	L Placid-2	7/17/2004	13.0	7.10	1.0	0.019	0.01	0.01	0.34	29.99	9	6.37	40		0.50	
88.1	L Placid-2	8/1/2004		6.10	1.5	0.005	0.05	0.01	0.41	281.82		8.31			2.30	
88.1	L Placid-2	8/14/2004		6.60	1.5	0.012	0.06	0.01	0.32	37.35	5	7.75	27		2.35	
88.1	L Placid-2	9/1/2004		6.40		0.001	0.06	0.02	0.38	168.62	2	7.45	24	5.3	1.10	
88.1	L Placid-2	9/13/2004		7.10		0.005	0.08	0.01	0.20	38.91	9	7.25	25		1.20	
88.1	L Placid-2	10/3/2004		7.38		0.003	0.05	0.04	0.32	882.95	5	7.35	28			

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
88.1	L Placid-2	6/26/2005		10.13		0.001	0.01	0.10	0.54	265.33	5	8.57	34	3.8	0.78	
88.1	L Placid-2	7/10/2005		7.38		0.005	0.01	0.13	0.27	228.41	13	8.30	42		1.40	
88.1	L Placid-2	7/23/2005	13.0	7.38	1.0	0.004	0.01	0.08	0.15	375.07	2	7.83	29		1.53	
88.1	L Placid-2	8/8/2005	13.0	8.88	2.0	0.004	0.01	0.08	0.26	117.76	2	7.35	30		0.97	
88.1	L Placid-2	8/21/2005		6.38	2.0	0.005	0.02	0.05	0.39	232.08	12	7.27	28	2.3	1.72	
88.1	L Placid-2	9/2/2005	13.0	7.38		0.004	0.01	0.06	0.57	337.63	3	7.06	26		1.45	
88.1	L Placid-2	9/19/2005	13.0	7.38	1.0	0.000	0.01	0.02	0.22	91.21	3	7.93	33		1.83	
88.1	L Placid-2	10/3/2005	12.0	9.13	1.5	0.002	0.01	0.01	0.27	163.59	7	8.21	29		1.84	
88.1	L Placid-2	6/25/2006	12.0	7.88	1.0	0.000	0.17	0.02	0.10	577.25	19	7.41	23	3.41	1.07	
88.1	L Placid-2	7/15/2006	15.0	8.13		0.003	0.11	0.02	0.21	192.69		7.92	29		0.88	
88.1	L Placid-2	7/30/2006	13.0		1.0	0.000	0.11	0.03	0.47	3472.92	21	8.03	36		1.81	
88.1	L Placid-2	8/13/2006	13.0	5.13		0.004	0.10	0.01	0.53	341.35	14	7.76	28		2.56	
88.1	L Placid-2	8/28/2006	13.0	4.63		0.003	0.06	0.02	0.48	3535.99	2	7.64	25	3.38	2.93	
88.1	L Placid-2	9/12/2006	13.0	5.13	1.0	0.004	0.06	0.02	0.52	285.45	5	7.79	27		2.23	
88.1	L Placid-2	9/26/2006	13.0	4.88		0.004	0.11	0.05	0.46	305.94	9	6.36	22		2.53	
88.1	L Placid-2	10/9/2006	13.0	6.88		0.003	0.06	0.03	0.82	477.43		6.9	28		2.31	
88.1	L Placid-2	7/1/2007	13.0	6.63		0.004	0.25	0.02	0.70	407.27	5	8.84	26	3.7	1.28	
88.1	L Placid-2	7/16/2007	13.0	7.75		0.003	0.31	0.04	0.62	423.07	6	8.75	26		1.38	
88.1	L Placid-2	7/29/2007		9.13		0.005	0.15	0.01	0.61	262.30	28	7.98	30		1.05	
88.1	L Placid-2	8/12/2007	13.0	8.63	1.5	0.004	0.19	0.01	0.60	374.87	7	8.55	25		1.43	
88.1	L Placid-2	9/1/2007		7.38		0.006	0.15	0.01	0.55	193.43	8	6.48	16	4.0	1.59	
88.1	L Placid-2	9/16/2007	13.0	7.38	1.0	0.001	0.07	0.03	0.35	863.45	3	7.71	32		2.54	
88.1	L Placid-2	9/30/2007	13.0	6.38	1.5	0.003	0.11	0.01	0.36	281.96	5	7.80	29		2.63	
88.1	L Placid-2	6/30/2008	13.0	7.63	1.5	0.005	0.15	0.03	0.46	204.38	5	6.99	23	3.4	1.58	
88.1	L Placid-2	7/19/2008	15.0	7.38	1.5	0.003	0.10	0.01	0.20	152.23	5	8.13	24		1.08	
88.1	L Placid-2	8/4/2008	13.0	7.63	1.5	0.000	0.07	0.03	0.44	2752.45	6	7.14	32		1.86	
88.1	L Placid-2	8/18/2008	13.0	7.38	1.5	0.003	0.10	0.03	0.24	186.42	12	8.46	29		2.03	
88.1	L Placid-2	9/2/2008	13.0	7.38	1.5	0.004	0.08	0.02	0.20	111.67		7.79	25	3.4	1.95	
88.1	L Placid-2	9/17/2008	13.0		1.5	0.004	0.07	0.01	0.27	145.98	1	8.56	35		1.20	
88.1	L Placid-2	10/4/2008	13.0	5.63		0.003	0.07	0.02	0.25	163.74	1	6.41	30		2.83	
88.1	L Placid-2	07/02/2009	~13	7.75	1.5	0.001	0.09	0.00			12	7.77	25	2.7	1.28	
88.1	L Placid-2	07/23/2009	~13	8.88	1.5	0.000	0.10	0.01			8	7.64	20		1.20	
88.1	L Placid-2	08/15/2009		7.88	1.5	0.004	0.05	0.01			10	7.08	25		1.40	
88.1	L Placid-2	09/01/2009	13.0	7.13	1.5	0.003	0.01	0.01			12	7.42	22		2.50	
88.1	L Placid-2	7/5/2010	13.0	8.88	1.5	0.004	0.08	0.02	0.25	146.86	21	8.48	41	3.6	1.10	
88.1	L Placid-2	7/18/2010	13.0	8.13	1.5	0.004	0.06	0.01	0.22	113.58	8	7.16	29		1.20	
88.1	L Placid-2	8/1/2010	13.0	9.63	1.5	0.006	0.05	0.02	0.26	89.03	6	7.81	27		0.70	
88.1	L Placid-2	8/15/2010	13.0	9.13	1.5	0.004	0.13	0.06	0.35	218.74	5	8.17	36		1.40	
88.1	L Placid-2	9/11/2010	13.0	7.13	1.5	0.012	0.02	0.02	0.18	34.31	8	6.99	33	2.9	1.00	
88.1	L Placid-2	10/26/2010	13.0	7.63	1.5	0.005	0.06	0.02	0.23	93.81	11	6.91	32		2.00	
88.1	L Placid-2	7/3/2011	~13	6.13	1.5	0.013	0.13	0.03	0.25	42.96	13	8.24	48	5.1	1.70	
88.1	L Placid-2	7/15/2011	~13	6.13	1.5	0.007	0.09	0.03	0.34	105.11	10	8.05	51		2.00	
88.1	L Placid-2	7/15/2011	grab	bloom												
88.1	L Placid-2	7/31/2011	~13	6.88	1.5	0.007	0.07	0.02	0.27	91.72	17	8.37	35		2.40	
88.1	L Placid-2	7/31/2011	grab	bloom												
88.1	L Placid-2	8/14/2011				0.012	0.05	0.01	0.13	22.54	13	9.23	56		1.40	
88.1	L Placid-2	8/27/2011	13.0	8.63	1.5	0.006	0.03	0.02	0.22	87.21	12	7.32	59	6.4		
88.1	L Placid-2	10/10/2011	13.0	7.13	1.5	0.005	0.07	0.01	0.31	129.46	12	7.17	36			
88.1	L Placid-2	6/24/2012	13.0	9.38	1.5	0.004	0.13	0.03	0.26	141.12	7	7.18	30	3.3	1.50	
88.1	L Placid-2	7/8/2012	13.0	6.88	1.5	0.004	0.18	0.01	0.19	97.43	6	6.86	26		2.30	
88.1	L Placid-2	7/22/2012	13.0	7.13	1.5	0.004	0.08	0.02	0.30	176.00	6	7.98	30		1.80	
88.1	L Placid-2	8/4/2012	13.0	8.63	1.5	0.005	0.06	0.02	0.23	108.60	5	6.34	30		1.30	
88.1	L Placid-2	8/19/2012	13.0	9.63	1.5	0.005	0.05	0.01	0.25	114.58	9	7.11	30	3.5	2.10	
88.1	L Placid-2	9/1/2012	13.0	10.13	1.5	0.003	0.05	0.03	0.17	121.73	6	8.02	30		1.10	
88.1	L Placid-2	9/16/2012		8.88	1.5	0.004	0.03	0.03	0.15	81.95	4	8.23	24		1.30	
88.1	L Placid-2	9/30/2012	13.0	8.38	1.5	0.004	0.05	0.04	0.24	134.20	7	8.08	37		2.20	
88.1	L Placid-2	7/15/2013	13.0	6.63	1.5	0.005	0.07	0.01	0.27	127.47	12	7.25	27		2.00	
88.1	L Placid-2	7/27/2013	13.0	6.38	1.5	0.004			0.42	229.50	10	7.43	26		2.50	
88.1	L Placid-2	8/11/2013	13.0	5.88	1.5	0.003	0.05	0.03	0.33	219.33	10	7.45	27		3.40	
88.1	L Placid-2	8/24/2013	13.0	6.13	1.5	0.003			0.37	249.39	15	7.90	28		3.60	
88.1	L Placid-2	9/11/2013	13.0	5.13	1.5	0.006	0.02	0.04	0.36	140.74	10	7.57	27		6.30	
88.1	L Placid-2	9/21/2013	13.0	6.63	1.5	0.004					10	7.64	28		2.10	
88.1	L Placid-2	10/12/2013	13.0	7.13	1.5	0.003	0.01	0.01	0.34	235.12	8	6.80	27		1.00	
88.1	L Placid-2	10/12/2013	grab	bloom												
88.1	L Placid-2	6/16/2014	13.0	9.13	1.5	0.004	0.20	0.03	0.39	227.53	12	7.14	28	3.0	1.40	
88.1	L Placid-2	6/28/2014	13.0	9.13	1.5	0.005			0.30	135.21	9	6.62	28		0.80	

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
88.1	L Placid-2	7/26/2014	13.0	6.88	1.5	0.005	0.12	0.03	0.29	131.55	8	7.32	29		2.80	
88.1	L Placid-2	8/5/2014	13.0	5.63	1.5	0.004			0.31	162.90	2	7.54	28	2.9	3.80	
88.1	L Placid-2	8/30/2014	13.0	7.63	1.5	0.004			0.25	153.39	8	7.30	28		1.40	
88.1	L Placid-2	8/30/2014			bloom											
88.1	L Placid-2	9/28/2014	13.0	8.25	1.5	0.009	0.06	0.03	0.30	70.45	7	6.80	28		1.50	
88.1	L Placid-2	6/13/2015	13.0	8.80	1.5	0.004	0.15	0.03	0.41	244.38	6	7.92	30	3.2	1.40	
88.1	L Placid-2	7/5/2015	13.0	7.90	1.5	0.004			0.31	193.60	15	7.64	28		1.50	
88.1	L Placid-2	7/13/2015			Grab	0.012										
88.1	L Placid-2	7/13/2015			Grab	0.000										
88.1	L Placid-2	7/21/2015		8.40	1.5	0.006	0.12	0.03	0.28	100.42	11	7.63	28		1.80	5.0
88.1	L Placid-2	8/12/2015			1.5	0.004			0.30	155.02	6	7.83	32		2.30	
88.1	L Placid-2	8/30/2015	13.0	7.40	1.5	0.005	0.06	0.02	0.35	164.30	5	7.66	25	3.2	1.60	
88.1	L Placid-2	9/12/2015	13.0	7.90	1.5	0.003			0.22	144.67	3	7.44	26		1.30	
88.1	L Placid-2	7/10/2015			Bloom											
88.1	L Placid-2	7/15/2015			Bloom											
88.1	L Placid-2	7/16/2015			Bloom											
88.1	L Placid-2	7/27/2015			Bloom											
88.1	L Placid-2	7/27/2015			Bloom											
88.1	L Placid-2	8/13/2015			Bloom											
88.1	L Placid-2	8/13/2015			Bloom											
88.1	L Placid-2	9/26/2015	13.0	8.20	1.5	0.005	0.06	0.04	0.28	122.76	7	7.45	28		2.00	5.0
LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP		NO2	Fe	Mn	As	
88.1	L Placid-2	6/30/2004	~15			0.026	0.01	0.05	0.40	15.32						
88.1	L Placid-2	7/17/2004	13.0		11.0	0.004	0.14	0.01	0.49	138.71						
88.1	L Placid-2	8/1/2004				0.008	0.13	0.03	0.18	23.83						
88.1	L Placid-2	8/14/2004			14.0	0.005	0.12	0.02	0.31	61.15						
88.1	L Placid-2	9/1/2004				0.006	0.11	0.02	0.43	77.31						
88.1	L Placid-2	9/13/2004				0.004	0.15	0.04	0.52	123.71						
88.1	L Placid-2	10/3/2004				0.003	0.05	0.05	0.15	46.67						
88.1	L Placid-2	6/26/2005			11.3	0.004										
88.1	L Placid-2	7/10/2005			11.0	0.004										
88.1	L Placid-2	7/23/2005	13.0		11.0	0.004										
88.1	L Placid-2	8/8/2005	13.0		11.0	0.001										
88.1	L Placid-2	8/21/2005			11.0	0.005										
88.1	L Placid-2	9/2/2005	13.0		11.0	0.006										
88.1	L Placid-2	9/19/2005	13.0		11.0	0.005										
88.1	L Placid-2	10/3/2005	12.0		11.0	0.005										
88.1	L Placid-2	6/25/2006	12.0		11.0	0.003										
88.1	L Placid-2	7/15/2006	15.0		11.0	0.001										
88.1	L Placid-2	7/30/2006	13.0		11.0	0.006										
88.1	L Placid-2	8/13/2006	13.0		11.0	0.006										
88.1	L Placid-2	8/28/2006	13.0		11.0	0.005										
88.1	L Placid-2	9/12/2006	13.0		11.0	0.001										
88.1	L Placid-2	9/26/2006	13.0		11.0	0.000										
88.1	L Placid-2	10/9/2006	13.0		11.0	0.004										
88.1	L Placid-2	7/1/2007	13.0		11.0	0.005										
88.1	L Placid-2	7/16/2007	13.0		11.0	0.005										
88.1	L Placid-2	7/29/2007				0.005										
88.1	L Placid-2	8/12/2007	13.0		11.0	0.005										
88.1	L Placid-2	9/1/2007				0.005										
88.1	L Placid-2	9/16/2007	13.0		12.0	0.007										
88.1	L Placid-2	9/30/2007	13.0		11.0	0.005										
88.1	L Placid-2	6/30/2008	13.0		11.0	0.006										
88.1	L Placid-2	7/19/2008	15.0		13.0	0.005										
88.1	L Placid-2	8/4/2008	13.0		11.0	0.007										
88.1	L Placid-2	8/18/2008	13.0		11.0	0.005										
88.1	L Placid-2	9/2/2008	13.0		11.0	0.005										
88.1	L Placid-2	9/17/2008	13.0		11.0	0.004										
88.1	L Placid-2	10/4/2008	13.0		11.0	0.004										
88.1	L Placid-2	07/02/2009			11.0	0.007		0.03								
88.1	L Placid-2	07/23/2009			11.0	0.005										
88.1	L Placid-2	08/15/2009			11.0	0.006		0.02								
88.1	L Placid-2	09/01/2009			11.0	0.009										
88.1	L Placid-2	7/5/2010	13.0		11.0	0.004		0.36					0.03			
88.1	L Placid-2	8/1/2010	13.0		11.0	0.009		0.03					0.03			
88.1	L Placid-2	9/11/2010	13.0		11.0	0.005		0.04					0.08		1.00	

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP		NO2	Fe	Mn	As
88.1	L Placid-2	10/26/2010	13.0		11.0	0.003		0.03					0.11		0.80
88.1	L Placid-2	7/3/2011	~13		11.0	0.014		0.04					0.01	0.01	
88.1	L Placid-2	7/31/2011	~13		11.0	0.015		0.04					0.01	0.01	
88.1	L Placid-2	8/27/2011	13.0		11.0	0.009		0.05					0.01	0.01	0.50
88.1	L Placid-2	6/24/2012			11.0	0.005		0.05							
88.1	L Placid-2	7/8/2012			11.0								0.02	0.03	
88.1	L Placid-2	7/23/2012			11.0	0.005		0.02							
88.1	L Placid-2	8/4/2012			11.0								0.02	0.15	
88.1	L Placid-2	8/19/2012			11.0	0.010		0.02							
88.1	L Placid-2	9/1/2012			11.0								0.02	0.03	0.50
88.1	L Placid-2	9/16/2012			11.0	0.006		0.04							
88.1	L Placid-2	9/30/2012			11.0								0.02	0.03	0.50
88.1	L Placid-2	7/15/2013			11.0	0.005		0.02							
88.1	L Placid-2	7/27/2013			11.0	0.004									
88.1	L Placid-2	8/11/2013			11.0	0.005		0.03							
88.1	L Placid-2	8/24/2013			11.0	0.005									
88.1	L Placid-2	9/11/2013			11.0	0.004		0.04							
88.1	L Placid-2	9/21/2013			11.0	0.004									
88.1	L Placid-2	10/12/2013			11.0	0.004		0.01							
88.1	L Placid-2	10/27/2013			11.0	0.003									
88.1	L Placid-2	6/16/2014			11.0	0.005		0.02							
88.1	L Placid-2	6/28/2014			11.0	0.007									
88.1	L Placid-2	7/26/2014			11.0	0.004		0.04							
88.1	L Placid-2	8/5/2014			11.0	0.005									
88.1	L Placid-2	8/30/2014			11.0	0.005									
88.1	L Placid-2	9/28/2014			11.0	0.005		0.04							
88.1	L Placid-2	6/13/2015			11.0	0.005		0.03							
88.1	L Placid-2	7/5/2015			11.0	0.004									
88.1	L Placid-2	7/21/2015			11.0	0.007		0.04							
88.1	L Placid-2	8/23/2015				0.005									
88.1	L Placid-2	8/30/2015			11.0	0.009		0.04							
88.1	L Placid-2	9/12/2015			11.0	0.005									
88.1	L Placid-2	9/26/2015			11.0	0.007		0.04							

LNum	PName	Date	Site	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
88	L Placid	7/6/1991	epi	21	21															
88	L Placid	7/14/1991	epi	19	20															
88	L Placid	7/21/1991	epi	22	23															
88	L Placid	8/4/1991	epi	18	21															
88	L Placid	8/11/1991	epi	17	20															
88	L Placid	8/18/1991	epi	22	22															
88	L Placid	8/25/1991	epi	17	20															
88	L Placid	6/10/1992	epi	12	16	1	1	1	0											
88	L Placid	6/26/1992	epi	20	17	1	1	1	0											
88	L Placid	7/10/1992	epi	22	18	1	1	1												
88	L Placid	7/26/1992	epi	20	20	1	1	1												
88	L Placid	8/10/1992	epi	18	19	1	1	1												
88	L Placid	8/24/1992	epi	19	20	1	1	1												
88	L Placid	9/7/1992	epi	17	16															
88	L Placid	9/21/1992	epi	17	17	2	1	1												
88	L Placid	6/6/1993	epi	13	11	1	1	1	5											
88	L Placid	6/20/1993	epi	21	17	1	1	1	0											
88	L Placid	7/5/1993	epi	24	22	1	1	1												
88	L Placid	7/18/1993	epi	17	22	1	1	1												
88	L Placid	7/30/1993	epi	19	22	1	1	1												
88	L Placid	8/13/1993	epi	25	21	1	1	1												
88	L Placid	8/30/1993	epi	17	22															
88	L Placid	9/12/1993	epi	12	18															
88	L Placid	6/12/1994	epi	17	15	1	1	1												
88	L Placid	6/27/1994	epi	18	19	2	1	1	5											
88	L Placid	7/10/1994	epi	20	22	1	1	1												
88	L Placid	7/24/1994	epi	22	26	1	1	1												

LNum	PName	Date	Site	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
88	L Placid	8/7/1994	epi	15	21	1	1	1												
88	L Placid	8/22/1994	epi	13	19	2	1	1												
88	L Placid	9/4/1994	epi	12	17	2	1	1												
88	L Placid	9/18/1994	epi	10	15	2	1	2	5											
88	L Placid	6/25/1995	epi																	
88	L Placid	7/9/1995	epi	19	21	1	1	1												
88	L Placid	7/23/1995	epi	24	23	1	1	1												
88	L Placid	8/6/1995	epi	19	23	1	1	1												
88	L Placid	8/20/1995	epi	24	24	1	1	1												
88	L Placid	9/3/1995	epi	19	20	1	1	1												
88	L Placid	9/17/1995	epi	19	18	1	1	1	5											
88	L Placid	10/1/1995	epi	17	16	2	1	1												
88	L Placid	6/30/1996	epi	16	18	2	1		5											
88	L Placid	7/28/1996	epi	15	20	2	1	1												
88	L Placid	9/1/1996	epi	18	21	2	1	1												
88	L Placid	9/30/1996	epi	11	15	2	1	2												
88	L Placid	6/29/1997	epi	21	20	1	1	1												
88	L Placid	7/27/1997	epi	25	22	1	1	1												
88	L Placid	9/1/1997	epi	16	20	1	1	1												
88	L Placid	9/27/1997	epi	15	15	1	1	1												
88	L Placid	7/12/1998	epi	20	19	1	1	1												
88	L Placid	8/30/1998	epi	18	20	2	1	1												
88	L Placid	9/9/1998	epi	19	23	1	1	1												
88	L Placid	9/27/1998	epi	20	18	2	1	2												
88	L Placid	6/27/1999	epi	24	22	1	1	1												
88	L Placid	7/25/1999	epi	23	24	1	1	1												
88	L Placid	8/2/1999	epi	15	20	2	1	1												
88	L Placid	9/19/1999	epi	10	16															
88	L Placid	6/25/2000	epi	22	20	2	1	1	5											
88	L Placid	7/23/2000	epi	16	19	1	1	1	5											
88	L Placid	9/4/2000	epi	11	19	2	1	1												
88	L Placid	9/23/2000	epi	11	15	3	1	4	5											
88	L Placid	7/1/2001	epi	18	19	1	1	1												
88	L Placid	7/29/2001	epi	16	21	1	1	1												
88	L Placid	8/26/2001	epi	20	22	1	1	1												
88	L Placid	9/23/2001	epi	15	18	2	1	1												
88	L Placid-1	7/3/2002	epi	27	24	1	1	1												
88	L Placid-1	7/28/2002	epi	23	22	1	1	1												
88	L Placid-1	9/1/2002	epi	20	22	2	1	1												
88	L Placid-1	10/12/2002	epi	17	15	1	1	1	5											
88	L Placid-1	6/23/2003	epi	23	19	1	1	1												
88	L Placid-1	8/2/2003	epi	25	21	1	1	1	5											
88	L Placid-1	8/31/2003	epi	16	19	2	1	1												
88	L Placid-1	10/3/2003	epi	4	13	2	1	1												
88	L Placid	6/30/2004	epi	20	18	1	1	1	5											
88	L Placid	7/18/2004	epi	19	22	2	1	1	0											
88	L Placid	8/1/2004	epi	22	23	2	1	1	0											
88	L Placid	8/14/2004	epi	15	21	2	1	1	5											
88	L Placid	9/1/2004	epi	17	21	1	1	1	5											
88	L Placid	9/13/2004	epi	14	19	2	1	1	5											
88	L Placid	10/3/2004	epi	5	17	2	1	1	5											
88	L Placid-1	6/26/2005	epi	22	21	1	1	1	0											
88	L Placid-1	7/10/2005	epi	24	21	1	1	1	0											
88	L Placid-1	7/23/2005	epi	27	24	1	3	1	8											
88	L Placid-1	8/8/2005	epi	23	24	1	1	1	8											
88	L Placid-1	8/21/2005	epi	20	22	1	3	1	8											
88	L Placid-1	9/2/2005	epi	21	21	2	3	1	0											
88	L Placid-1	9/19/2005	epi	20	20	2	1	2	5											
88	L Placid-1	10/3/2005	epi	19	17	1	1	1	0											
88	L Placid-1	6/25/2006	epi	24	21	2	1	1	0											
88	L Placid-1	7/15/2006	epi	20	22	1	1	1	0											

LNum	PName	Date	Site	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
88	L Placid-1	7/30/2006	epi	19	23	2	1	2	0											
88	L Placid-1	8/13/2006	epi	11	20	2	3	2	5											
88	L Placid-1	8/28/2006	epi	21	21	2	2	1	0											
88	L Placid-1	9/12/2006	epi	20	18	3	3	2	0											
88	L Placid-1	9/26/2006	epi	9	11	2	3	2	5											
88	L Placid-1	10/9/2006	epi	11	14	2	2	1	0											
88	L Placid-1	7/1/2007	epi	11	20	2	1	1	5											
88	L Placid-1	7/16/2007	epi	17	20	1	1	1	0											
88	L Placid-1	7/29/2007	epi	16	23	1	3	1	0											
88	L Placid-1	8/12/2007	epi	21	22	1	3	1	0											
88	L Placid-1	9/1/2007	epi	15	21	1	3	1	0											
88	L Placid-1	9/16/2007	epi	11	18	2	1	1	8											
88	L Placid-1	9/30/2007	epi	11	18	3	3	2	6											
88	L Placid-1	6/30/2008	epi	23	20	1	1	1	0											
88	L Placid-1	7/19/2008	epi	20	23	1	1	2	5											
88	L Placid-1	8/4/2008	epi	20	21	2	3	1	5											
88	L Placid-1	8/18/2008	epi	20	20	2	2	2	5											
88	L Placid-1	9/2/2008	epi	18	21	2	3	1	0											
88	L Placid-1	9/17/2008	epi	20	29	2	3	2	5											
88	L Placid-1	10/4/2008	epi	7	15	3	3	1	0											
88	L Placid	7/5/1993	hypo	24	20															
88	L Placid	7/18/1993	hypo	17	19															
88	L Placid	8/30/1993	hypo	17	8															
88	L Placid	9/12/1993	hypo	12	18															
88	L Placid	7/10/1994	hypo		8															
88	L Placid	7/24/1994	hypo		8															
88	L Placid	8/22/1994	hypo		8															
88	L Placid	9/18/1994	hypo		8															
88	L Placid-1	9/1/2004	hypo		8															
88	L Placid-1	9/13/2004	hypo		7															
88	L Placid-1	6/26/2005	hypo		8															
88	L Placid-1	7/10/2005	hypo		10															
88	L Placid-1	7/23/2005	hypo		10															
88	L Placid-1	8/8/2005	hypo		9															
88	L Placid-1	8/21/2005	hypo		9															
88	L Placid-1	9/2/2005	hypo		9															
88	L Placid-1	9/19/2005	hypo		9															
88	L Placid-1	10/3/2005	hypo		9															
88	L Placid-1	6/25/2006	hypo		9															
88	L Placid-1	7/15/2006	hypo		8															
88	L Placid-1	7/30/2006	hypo		8															
88	L Placid-1	8/13/2006	hypo		9															
88	L Placid-1	8/28/2006	hypo		9															
88	L Placid-1	9/12/2006	hypo		9															
88	L Placid-1	9/26/2006	hypo		7															
88	L Placid-1	10/9/2006	hypo		9															
88	L Placid-1	7/1/2007	hypo		7															
88	L Placid-1	7/16/2007	hypo		8															
88	L Placid-1	7/29/2007	hypo		8															
88	L Placid-1	8/12/2007	hypo		9															
88	L Placid-1	9/1/2007	hypo		8															
88	L Placid-1	9/16/2007	hypo		8															
88	L Placid-1	9/30/2007	hypo		8															
88	L Placid-1	6/30/2008	hypo		9															
88	L Placid-1	7/19/2008	hypo		8															
88	L Placid-1	8/4/2008	hypo		8															
88	L Placid-1	8/18/2008	hypo		8															
88	L Placid-1	9/2/2008	hypo		9															
88	L Placid-1	9/17/2008	hypo		9															
88	L Placid-1	10/4/2008	hypo		7															
88.1	L Placid-2	9/1/1996	epi	20	21															

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QE	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cylin	FP-Chl	FP-BG	HABform	ShoreHAB
88.1	L Placid-2	9/30/1996	epi	10	15																
88.1	L Placid-2	6/29/1997	epi	21	20	1	1	1													
88.1	L Placid-2	7/27/1997	epi	22	22	1	1	1													
88.1	L Placid-2	9/1/1997	epi	17	19	2	1	2													
88.1	L Placid-2	9/27/1997	epi	15	15	1	1	1													
88.1	L Placid-2	7/12/1998	epi	19	19	1	1	1													
88.1	L Placid-2	8/30/1998	epi	18	20	2	1	1													
88.1	L Placid-2	9/9/1998	epi	21	22																
88.1	L Placid-2	9/27/1998	epi	20	18	2	1	2													
88.1	L Placid-2	6/27/1999	epi	24	22																
88.1	L Placid-2	7/25/1999	epi	23	24	1	1	1													
88.1	L Placid-2	8/2/1999	epi	15	19	2	1	1													
88.1	L Placid-2	9/19/1999	epi	10	16	2	1	3	6												
88.1	L Placid-2	6/25/2000	epi	22	18	1	1	1	5												
88.1	L Placid-2	7/23/2000	epi	15	18																
88.1	L Placid-2	9/4/2000	epi	11	19																
88.1	L Placid-2	9/23/2000	epi	11	15	3	1	4	5												
88.1	L Placid-2	7/1/2001	epi	18	20																
88.1	L Placid-2	7/29/2001	epi	16	21	1	1	1													
88.1	L Placid-2	8/26/2001	epi	20	22	1	1	1													
88.1	L Placid-2	9/23/2001	epi	15	18	2	1	1													
88.1	L Placid-2	7/3/2002	epi	28	23	1	1	1													
88.1	L Placid-2	7/28/2002	epi																		
88.1	L Placid-2	9/1/2002	epi																		
88.1	L Placid-2	10/12/2002	epi																		
88.1	L Placid-2	6/23/2003	epi	23	20	1	1	1													
88.1	L Placid-2	8/2/2003	epi	23	21	1	1	1	5												
88.1	L Placid-2	8/31/2003	epi	16	19	2	1	1													
88.1	L Placid-2	10/3/2003	epi	4	15	2	1	1													
88.1	L Placid-2	8/31/2003	epi																		
88.1	L Placid-2	10/3/2003	epi																		
88.1	L Placid-2	6/30/2004	epi	16	18	1	1	1	5												
88.1	L Placid-2	7/17/2004	epi	20	21	1	1	1	0												
88.1	L Placid-2	8/1/2004	epi	21	22	2	1	1	0												
88.1	L Placid-2	8/14/2004	epi	16	20	2	1	1	5												
88.1	L Placid-2	9/1/2004	epi	15	20	2	1	2	5												
88.1	L Placid-2	9/13/2004	epi	14	19	2	1	1	0												
88.1	L Placid-2	10/3/2004	epi	6	17	2	1	1	5												
88.1	L Placid-2	6/26/2005	epi	22	20	1	1	1	0												
88.1	L Placid-2	7/10/2005	epi	20	21	2	1	1	0												
88.1	L Placid-2	7/23/2005	epi	20	24	1	3	1	8												
88.1	L Placid-2	8/8/2005	epi	22	23	1	1	1	8												
88.1	L Placid-2	8/21/2005	epi	21	22	1	3	1	8												
88.1	L Placid-2	9/2/2005	epi	18	21	2	3	1	0												
88.1	L Placid-2	9/19/2005	epi	19	20	2	1	2	5												
88.1	L Placid-2	10/3/2005	epi	20	17	1	1	1	0												
88.1	L Placid-2	6/25/2006	epi	22	23	2	1	1	0												
88.1	L Placid-2	7/15/2006	epi	21	22	1	1	1	0												
88.1	L Placid-2	7/30/2006	epi	17	23	2	1	2	0												
88.1	L Placid-2	8/13/2006	epi	14	20	2	3	2	5												
88.1	L Placid-2	8/28/2006	epi	21	22	2	2	1	0												
88.1	L Placid-2	9/12/2006	epi	20	18	3	3	2	0												
88.1	L Placid-2	9/26/2006	epi	9	15	2	3	2	5												
88.1	L Placid-2	10/9/2006	epi	12	14	2	2	1	0												
88.1	L Placid-2	7/1/2007	epi	12	19	2	1	1	5												
88.1	L Placid-2	7/16/2007	epi	15	19	1	1	1	0												
88.1	L Placid-2	7/29/2007	epi	20	23	1	3	1	0												
88.1	L Placid-2	8/12/2007	epi	21	23	1	3	1	0												
88.1	L Placid-2	9/1/2007	epi	14	21	1	3	1	0												
88.1	L Placid-2	9/16/2007	epi	8	17	2	1	1	0												
88.1	L Placid-2	9/30/2007	epi	10	17	3	3	2	6												

LNum	PName	Date	Site	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
88.1	L Placid-2	6/30/2008	epi	17	19	1	1	1	0											
88.1	L Placid-2	7/19/2008	epi	20	22	1	1	2	5											
88.1	L Placid-2	8/4/2008	epi	20	20	2	3	1	5											
88.1	L Placid-2	8/18/2008	epi	19	20	2	2	2	5											
88.1	L Placid-2	9/2/2008	epi	19	21	2	3	1	0											
88.1	L Placid-2	9/17/2008	epi	17	18	2	3	2	5											
88.1	L Placid-2	10/4/2008	epi	6	15	3	3	1	0											
88.1	L Placid-2	07/02/2009	epi	19	20	2	2	2	5											
88.1	L Placid-2	07/23/2009	epi	20	19	1	2	1	0											
88.1	L Placid-2	08/15/2009	epi	26	23	2	3	2	0											
88.1	L Placid-2	09/01/2009	epi	21	27	2	2	2	1					0.00						
88.1	L Placid-2	7/5/2010	epi	21	19	1	1	1	0	0	4									
88.1	L Placid-2	7/18/2010	epi	24	23	1	1	1	0	0	0									
88.1	L Placid-2	8/1/2010	epi	20	22	1	1	1	0	0	0									
88.1	L Placid-2	8/15/2010	epi	21	22	1	2	1	0	0	0	25.28								
88.1	L Placid-2	9/11/2010	epi	18	19	2	2	1	0	0	0									
88.1	L Placid-2	10/26/2010	epi	18	11	1	2	1	0											
88.1	L Placid-2	7/3/2011	epi	26	21	2	1	1	0	0	4	6.10	1.50							
88.1	L Placid-2	7/15/2011	epi	25	23	2	2	2	0	0	0	8.10	1.50							
88.1	L Placid-2	7/15/2011	bloom											1.31	<2	<.1				
88.1	L Placid-2	7/31/2011	epi	24	24	1	3	1	0	0	0	6.50	1.60							
88.1	L Placid-2	7/31/2011	bloom											3.62	<0.4	<0.1				
88.1	L Placid-2	8/14/2011	epi			2	3	2	4	4	0	9.30	1.50							h
88.1	L Placid-2	8/27/2011	epi	22	21	2	2	2	0	0	0	3.50	1.10							
88.1	L Placid-2	10/10/2011	epi	15	15	1	2	1	0	0	0	8.30	1.50							
88.1	L Placid-2	6/24/2012	epi	14	22	2	3	2	0	4	4	1.00	0.30	<0.30	<0.428		1.47	0.60		F
88.1	L Placid-2	7/8/2012	epi	20	22							0.70	0.40	<0.30	<0.423		2.07	0.48		
88.1	L Placid-2	7/22/2012	epi	20	23	2	3	1	0	0	0	2.10	0.20	<0.30	<0.585		1.13	0.53		
88.1	L Placid-2	8/4/2012	epi	19	24	2	3	1	0	0	0	4.00	0.20	<0.30	<0.537		0.94	0.37		
88.1	L Placid-2	8/19/2012	epi	23	21	2	3	1	8	4	4	4.00	0.20	0.32	<0.552		1.61	1.16		
88.1	L Placid-2	9/1/2012	epi	27	21	1	3	1	0	0	0	0.70	0.20	<0.30	<0.725		2.00	1.51		
88.1	L Placid-2	9/16/2012	epi	10	17	1	3	1	8	0	0	2.00	0.30	<0.30	<3.205		0.89	0.54		F
88.1	L Placid-2	9/30/2012	epi	11	15	2	3	1	0	0	0	2.40	0.30	<0.30	<3.205		1.59	0.59		
88.1	L Placid-2	7/15/2013	epi	25	24	3	3	2	0	0	0	0.40	1.80	<0.30	<0.490		1.50	0.00		
88.1	L Placid-2	7/27/2013	epi	22	22	2	3	1	0	0	0	1.80	1.60	<0.30	<0.380		2.20	0.00		
88.1	L Placid-2	8/11/2013	epi	17	20	3	3	2	0	0	0	3.40	1.50	<0.30	<0.340		2.00	0.10		
88.1	L Placid-2	8/24/2013	epi	18	20	2	3	1	0	0	0	1.10	1.70	0.46	<0.570		1.10	0.00		
88.1	L Placid-2	9/11/2013	epi	26	20	3	3	2	0	0	0	2.10	0.50	<0.30	<19.130		0.10	0.00		
88.1	L Placid-2	9/21/2013	epi	18	17	3	3	2	0	0	0			<0.30	<19.130					
88.1	L Placid-2	10/12/2013	epi	13	14	1	3	1	0	0	0	1.10	1.20	<0.30	<0.090					
88.1	L Placid-2	10/12/2013	bloom											2.94	<0.170	19.34	35.80	7.40		
88.1	L Placid-2	10/27/2013	epi	4	9	2	3	2	5	0	0			<0.30	<0.090		0.70	0.00		
88.1	L Placid-2	6/16/2014	epi	19	19	1	1	1	0	0	0	0.05	0.20	<0.53	<0.08	<0.002	0.53	0.00		
88.1	L Placid-2	6/28/2014	epi	19	21	2	1	2	8	0	0			<0.48	<0.48	<0.002				
88.1	L Placid-2	7/26/2014	epi	19	21	2	2	2	0	0	0	1.10	0.30	<0.63	<0.03	<0.001	1.20	0.00		
88.1	L Placid-2	8/5/2014	epi	22	21	2	3	2	0	0	0	3.60	0.70	<0.38	<0.05	<0.001	2.95	0.00		
88.1	L Placid-2	8/30/2014	epi	18	20	3	3	2	0	4	4	2.50	0.10	<0.25	<0.14	<0.002	0.24	0.00		
88.1	L Placid-2	8/30/2014	bloom											<0.58	<0.28	<0.003	83.94	6.36		
88.1	L Placid-2	9/28/2014	epi	13	14	1	3	1	0	0	0	1.90	0.10	<0.19	<0.12	<0.001	0.28	0.00		
88.1	L Placid-2	6/13/2015	epi	17	16	1	1	1	0	1	1	0.80	0.20	<0.55	<0.018	<0.139	0.29	0.00		I
88.1	L Placid-2	7/5/2015	epi	17	18							10.40	0.30	<0.71	<0.003	<0.011	0.53	0.00		DE
88.1	L Placid-2	7/13/2015	Grab																	
88.1	L Placid-2	7/13/2015	grab																	
88.1	L Placid-2	7/21/2015	epi	23	22	2	3	1	0	2	3			<0.36	<0.003	<0.018				D
88.1	L Placid-2	8/12/2015	epi											<0.28	<0.008	<0.021	0.85	0.00		DH
88.1	L Placid-2	8/30/2015	epi	19	22	2	3	2	0	2	3			<0.45	<0.031	<0.028	0.45	0.00		I
88.1	L Placid-2	9/12/2015	bloom	16	21	2	3	2	0	2	3	4.70	0.10	<0.37	<0.009	<0.022	0.69	0.39		I
88.1	L Placid-2	7/10/2015	bloom											235%	<0.018	<0.100	36.84	31.41		
88.1	L Placid-2	7/16/2015	bloom														0.48	0.00		
88.1	L Placid-2	7/27/2015	bloom											<0.51	<0.005	<0.031	1283.75	1251.25		e

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QE	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cylin	FP-Chl	FP-BG	HAB form	Shore HAB
88.1	L Placid-2	7/27/2015	bloom												<1.29	<0.010	<0.060	50.76	5.69		e
88.1	L Placid-2	8/13/2015	bloom												<0.88	<0.007	<0.025	2.78	0.00		
88.1	L Placid-2	8/13/2015	bloom												<0.88	5.91	<0.025	82.66	1.80		
88.1	L Placid-2	9/26/2015	epi			2	3	2	0	2	3				<0.58	<0.225	<0.650	0.80	0.48		
88.1	L Placid-2	8/1/2004	hypo		10																
88.1	L Placid-2	8/14/2004	hypo		11																
88.1	L Placid-2	9/1/2004	hypo		12																
88.1	L Placid-2	9/13/2004	hypo		10																
88.1	L Placid-2	6/26/2005	hypo		10																
88.1	L Placid-2	7/10/2005	hypo		12																
88.1	L Placid-2	7/23/2005	hypo		11																
88.1	L Placid-2	8/8/2005	hypo		10																
88.1	L Placid-2	8/21/2005	hypo		11																
88.1	L Placid-2	9/2/2005	hypo		11																
88.1	L Placid-2	9/19/2005	hypo		12																
88.1	L Placid-2	10/3/2005	hypo		14																
88.1	L Placid-2	6/25/2006	hypo		11																
88.1	L Placid-2	7/15/2006	hypo		11																
88.1	L Placid-2	7/30/2006	hypo		12																
88.1	L Placid-2	8/13/2006	hypo		11																
88.1	L Placid-2	8/28/2006	hypo		11																
88.1	L Placid-2	9/12/2006	hypo		14																
88.1	L Placid-2	9/26/2006	hypo		13																
88.1	L Placid-2	10/9/2006	hypo		13																
88.1	L Placid-2	7/1/2007	hypo		9																
88.1	L Placid-2	7/16/2007	hypo		12																
88.1	L Placid-2	7/29/2007	hypo		11																
88.1	L Placid-2	8/12/2007	hypo		15																
88.1	L Placid-2	9/1/2007	hypo		10																
88.1	L Placid-2	9/16/2007	hypo		13																
88.1	L Placid-2	9/30/2007	hypo		13																
88.1	L Placid-2	6/30/2008	hypo		11																
88.1	L Placid-2	7/19/2008	hypo		14																
88.1	L Placid-2	8/4/2008	hypo		12																
88.1	L Placid-2	8/18/2008	hypo		11																
88.1	L Placid-2	9/2/2008	hypo		14																
88.1	L Placid-2	9/17/2008	hypo		13																
88.1	L Placid-2	10/4/2008	hypo		14																
88.1	L Placid-2	07/02/2009	hypo		13																
88.1	L Placid-2	07/23/2009	hypo		12																
88.1	L Placid-2	08/15/2009	hypo		14																
88.1	L Placid-2	09/01/2009	hypo		12																
88.1	L Placid-2	7/5/2010	hypo		11																
88.1	L Placid-2	8/1/2010	hypo		3																
88.1	L Placid-2	9/11/2010	hypo		13																
88.1	L Placid-2	10/26/2010	hypo		10																
88.1	L Placid-2	7/3/2011	hypo		10																
88.1	L Placid-2	7/31/2011	hypo		11																
88.1	L Placid-2	8/27/2011	hypo		10																
88.1	L Placid-2	6/24/2012	hypo		10																
88.1	L Placid-2	7/8/2012	hypo		9																
88.1	L Placid-2	7/23/2012	hypo		10																
88.1	L Placid-2	8/4/2012	hypo		10																
88.1	L Placid-2	8/19/2012	hypo		11																
88.1	L Placid-2	9/1/2012	hypo		12																
88.1	L Placid-2	9/16/2012	hypo		12																
88.1	L Placid-2	9/30/2012	hypo		13																
88.1	L Placid-2	7/15/2013	hypo		10																
88.1	L Placid-2	7/27/2013	hypo		9																
88.1	L Placid-2	8/11/2013	hypo		10																
88.1	L Placid-2	8/24/2013	hypo		9																

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QE	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cylin	FP-Chl	FP-BG	HABform	ShoreHAB
88.1	L Placid-2	9/11/2013	hypo		11																
88.1	L Placid-2	9/21/2013	hypo		9																
88.1	L Placid-2	10/12/2013	hypo		10																
88.1	L Placid-2	10/27/2013	hypo		9																
88.1	L Placid-2	6/16/2014	hypo		9																
88.1	L Placid-2	6/28/2014	hypo		10																
88.1	L Placid-2	7/26/2014	hypo		10																
88.1	L Placid-2	8/5/2014	hypo		10																
88.1	L Placid-2	8/30/2014	hypo		9																
88.1	L Placid-2	9/28/2014	hypo		10																
88.1	L Placid-2	6/13/2015	hypo		9																
88.1	L Placid-2	7/5/2015	hypo		9																
88.1	L Placid-2	7/21/2015	hypo		10																
88.1	L Placid-2	8/23/2015	hypo																		
88.1	L Placid-2	8/30/2015	hypo		12																
88.1	L Placid-2	9/12/2015	hypo		11																
88.1	L Placid-2	9/26/2015	hypo		10																

Legend Information

<i>Indicator</i>	<i>Description</i>	<i>Detection Limit</i>	<i>Standard (S) / Criteria (C)</i>
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/l	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 (aquafior) (unitless)	1 unit	none
AQ-Chl	Chlorophyll a (aquafior) (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	Cylindrospermopsin (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 Lake Placid

Lake Placid (1004-0068)

NoKnownImpct

Waterbody Location Information

Revised: 05/29/2009

Water Index No:	C- 25-26-35-5-P254	Drain Basin:	Lake Champlain
Hydro Unit Code:	02010004/060	Str Class:	AAspcl
Waterbody Type:	Lake (Oligotrophic)	Reg/County:	5/Essex Co. (16)
Waterbody Size:	1954.3 Acres	Quad Map:	LAKE PLACID (D-25-B)
Seg Description:	entire lake		

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

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

Type of Pollutant(s)

Known: ---
Suspected: ---
Possible: OTHER POLLUTANTS (various)

Source(s) of Pollutant(s)

Known: ---
Suspected: ---
Possible: OTHER SOURCE (various)

Resolution/Management Information

Issue Resolvability: 3 (Strategy Being Implemented)
Verification Status: 5 (Management Strategy has been Developed)
Lead Agency/Office: DOW/Reg5
TMDL/303d Status: n/a

Resolution Potential: High

Further Details

Water Quality Sampling

Lake Placid has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1991 and most continuing through the present. An Interpretive Summary report of the findings of this sampling was published in 2007. These data indicate that the lake continues to be best characterized as oligotrophic, or unproductive. These trophic conditions have remained consistent throughout the sampling period. Phosphorus levels in the lake fall well below the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements greatly exceed the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality standard range of 6.5 to 8.5. The lake water is weakly colored, but color does not limit water transparency. (DEC/DOW, BWAM/CSLAP, July 2007)

Recreational Assessment

Public perception of the lake and its uses is also evaluated as part of the CSLAP program. This assessment indicates recreational suitability of the lake to be very favorable since the lake was first evaluated and continuing through the most recent assessment. The recreational suitability of the lake is described most frequently as "could not be nicer." The lake itself is most often described as "crystal clear" or "not quite crystal clear," an assessment that is somewhat less favorable than expected given measured water quality characteristics. Assessments have noted that aquatic plants rarely grows to the lake

surface. Aquatic plants are dominated by native species and have not been cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, July 2007)

Lake Uses

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

Source (Drinking) Water Assessment

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

Lake Placid has been designated a Class AA-special water, suitable for use as a drinking water supply. The Class AA-special designation also means there shall be no discharge or disposal of sewage, industrial wastes, or other wastes into these waters. As a result of this designation, the lake is considered a highly valued resource and is subject to special protections which may result in an assessment of threatened (possible) for drinking water use.

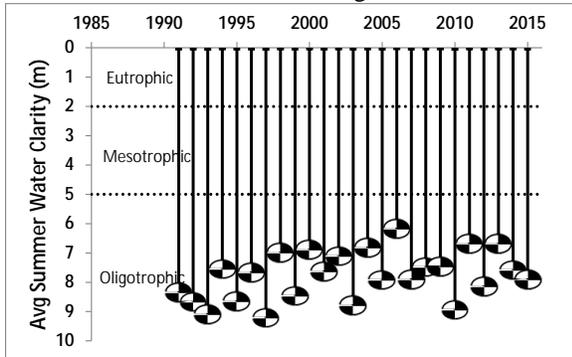
Segment Description

This segment includes the total area of Lake Placid (P254).

Appendix C- Long Term Trends: Lake Placid

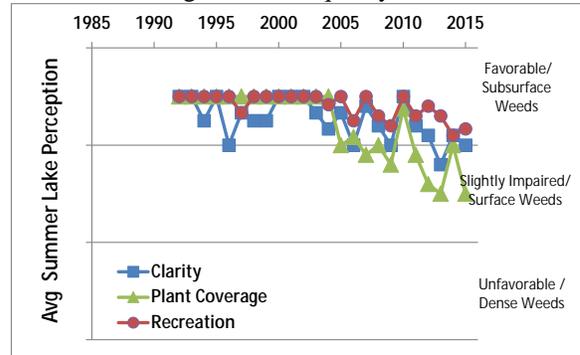
Long Term Trends: Water Clarity

- Slight ↓ since early '90s, but no clear trend
- Nearly all readings typical of *oligotrophic* lakes, consistent with algae levels and TP



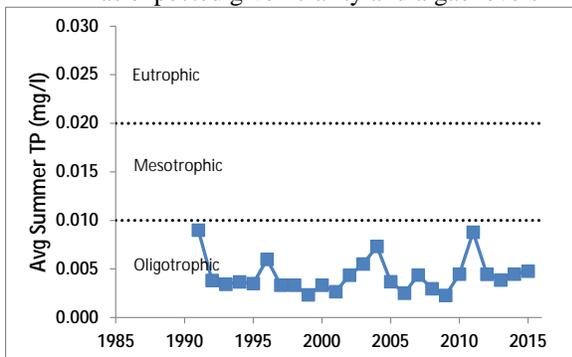
Long Term Trends: Lake Perception

- Plants ↑ (due to VLM?); worse rec 12-15
- Small recreational changes not closely linked to changes in water quality or weeds



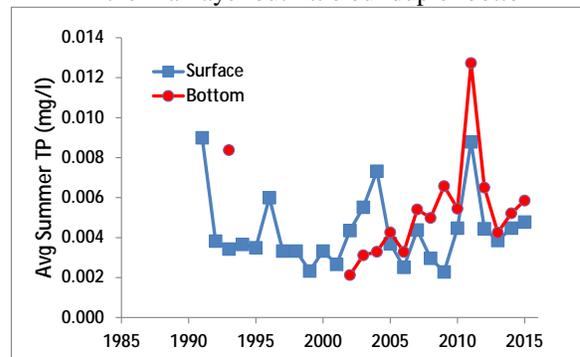
Long Term Trends: Phosphorus

- No long term trend; slight seasonal ↑
- Most readings typical of *oligotrophic* lakes, as expected given clarity and algae levels



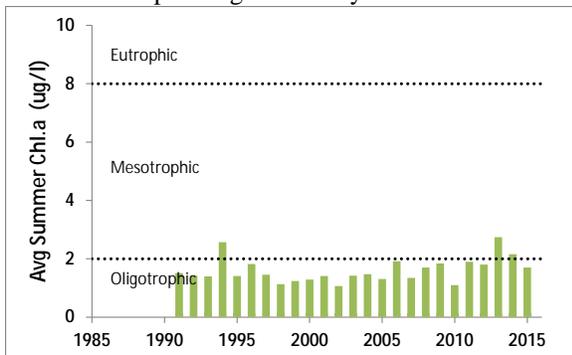
Long Term Trends: Bottom Phosphorus

- Bottom and surface TP mostly similar
- With temperature data, indicates strong thermal layer but little buildup of bottom TP



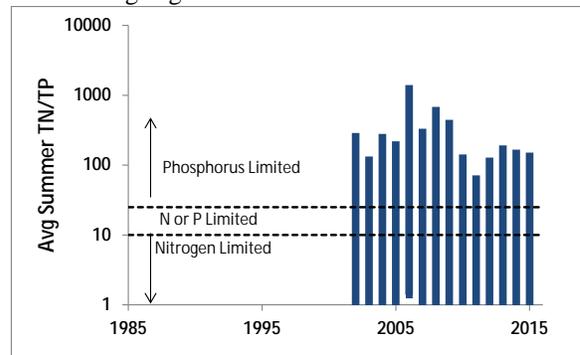
Long Term Trends: Chlorophyll a

- No trends apparent; consistently low chl.a
- Most readings indicate phosphorus limits algae growth



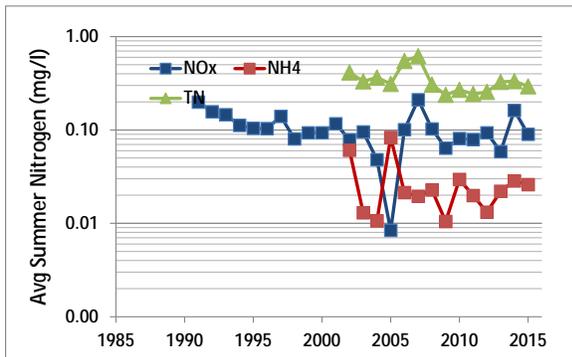
Long Term Trends: N:P Ratio

- Decrease since mid-2000s
- Most readings indicate phosphorus limits algae growth



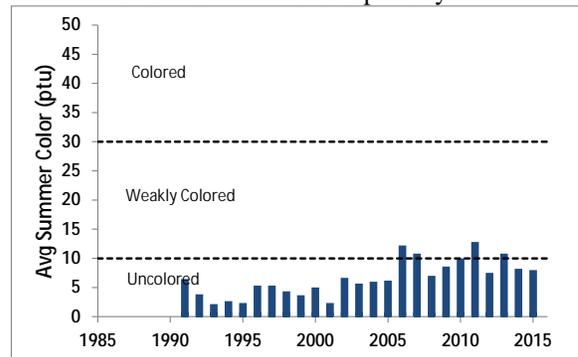
Long Term Trends: Nitrogen

- No trends apparent in any indicator
- Low nitrate, ammonia and total nitrogen



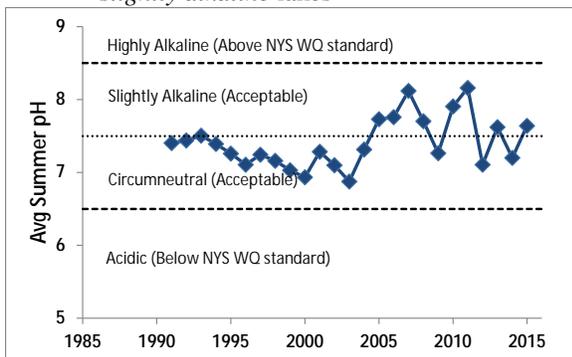
Long Term Trends: Color

- Slight color ↑ > 2002 due to lab change?
- Most readings typical of *uncolored* lakes and do not affect water transparency



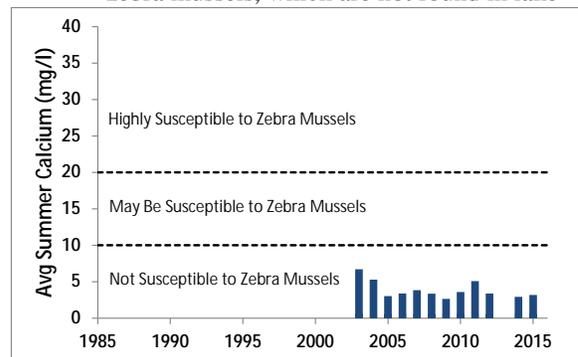
Long Term Trends: pH

- More variable and ↑ recently, but no trend
- Most readings typical of *circumneutral* to *slightly alkaline* lakes



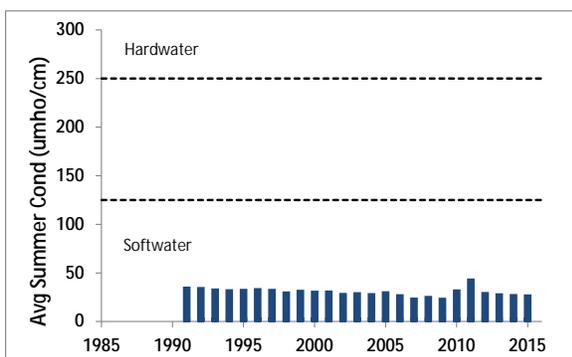
Long Term Trends: Calcium

- Slight decrease but no clear trends
- Most readings indicate low susceptibility to zebra mussels, which are not found in lake



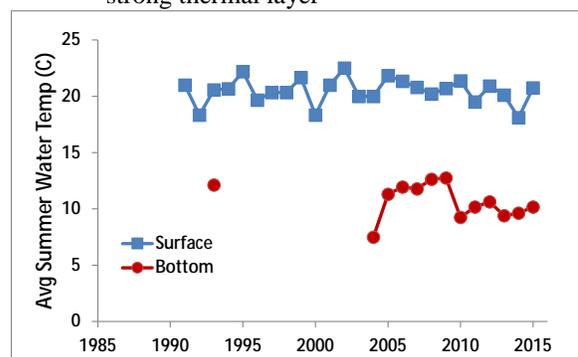
Long Term Trends: Conductivity

- No trends apparent; all readings low
- Most readings typical of *softwater* lakes



Long Term Trends: Water Temperature

- No trends apparent in surface temperatures
- Much lower deepwater temperature indicates strong thermal layer



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

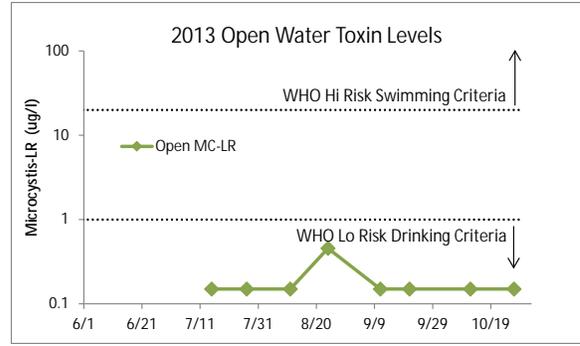


Figure D2:
2013 Open Water Microcystin-LR

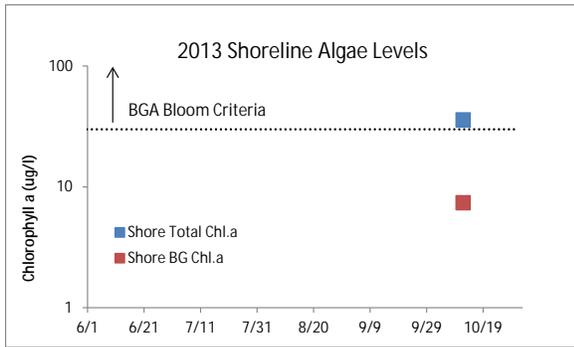


Figure D3:
2013 Shoreline Total and BGA Chl.a

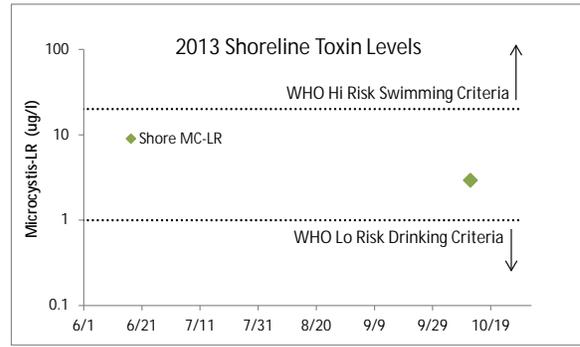


Figure D4:
2013 Shoreline Microcystin-LR

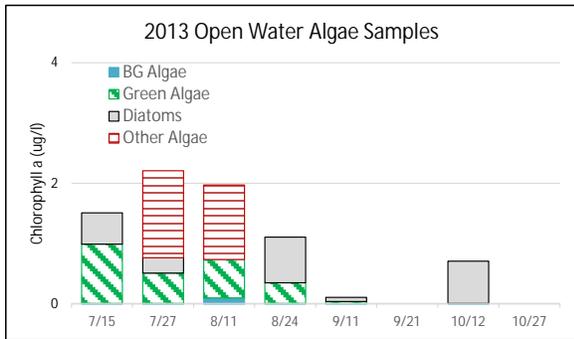


Figure D5:
2013 Open Water Algae Types

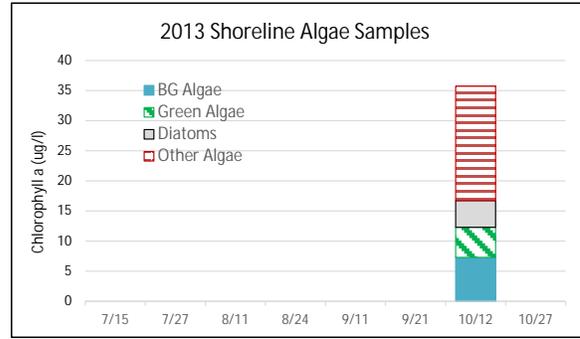


Figure D6:
2013 Shoreline Algae Types

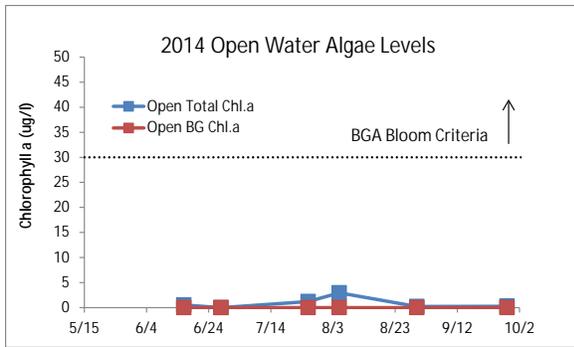


Figure D7:
2014 Open Water Total and BGA Chl.a

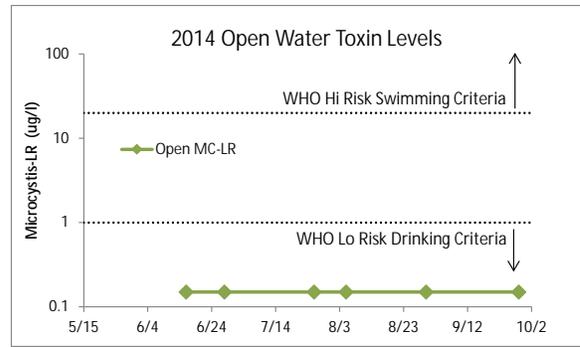


Figure D8:
2014 Open Water Microcystin-LR

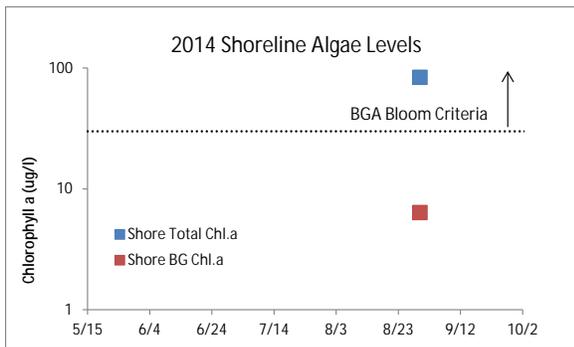


Figure D9:
2014 Shoreline Total and BGA Chl.a

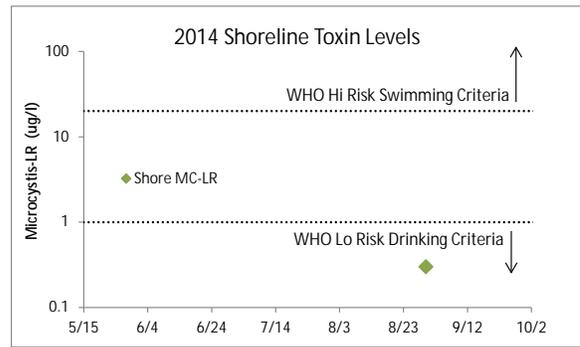


Figure D10:
2014 Shoreline Microcystin-LR

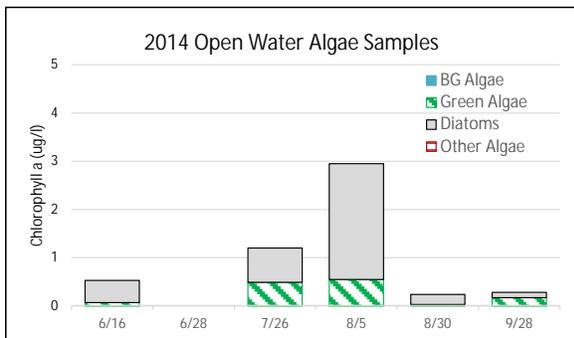


Figure D11:
2014 Open Water Algae Types

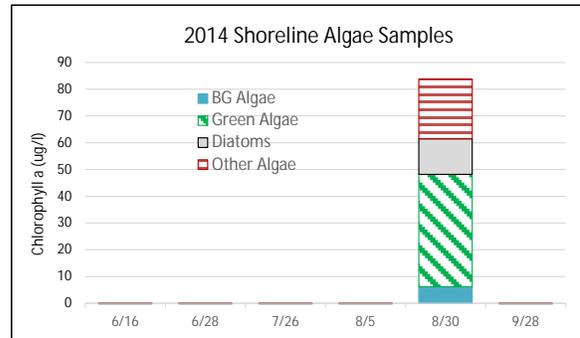


Figure D12:
2014 Shoreline Algae Types

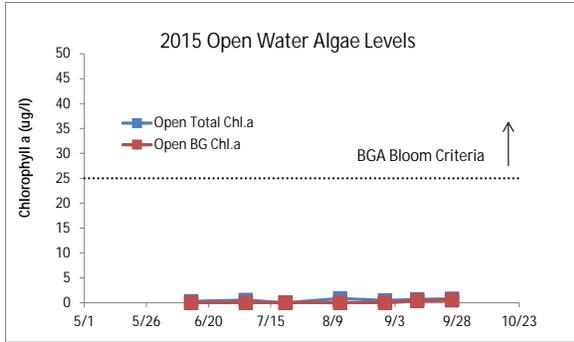


Figure D13:
2015 Open Water Total and BGA Chl.a

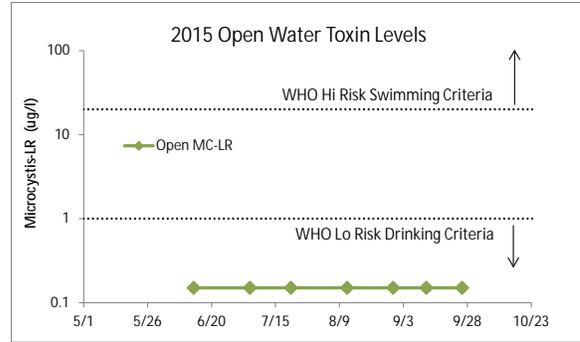


Figure D14:
2015 Open Water Microcystin-LR

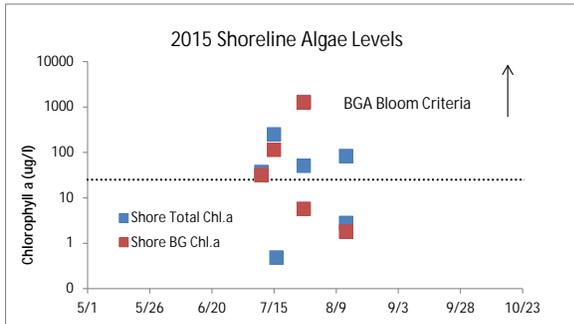


Figure D15:
2015 Shoreline Total and BGA Chl.a

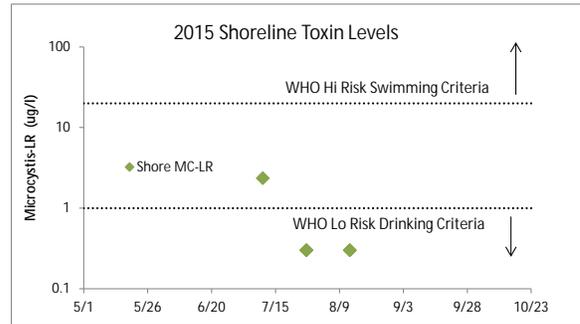


Figure D16:
2015 Shoreline Microcystin-LR

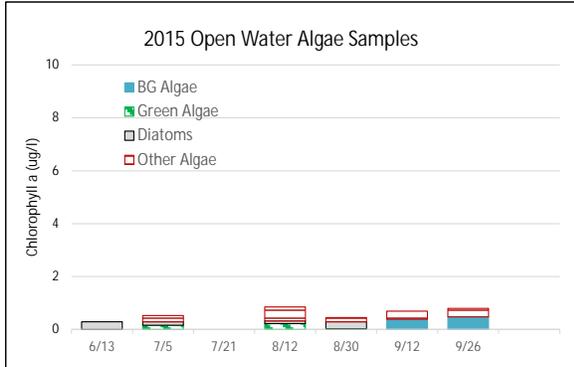


Figure D17:
2015 Open Water Algae Types

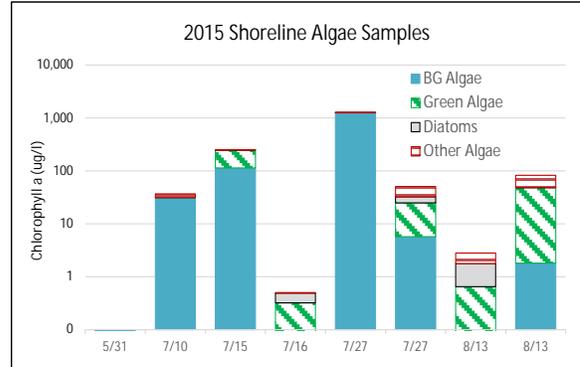


Figure D18:
2015 Shoreline Algae Types

Appendix E: AIS Species in Essex County

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

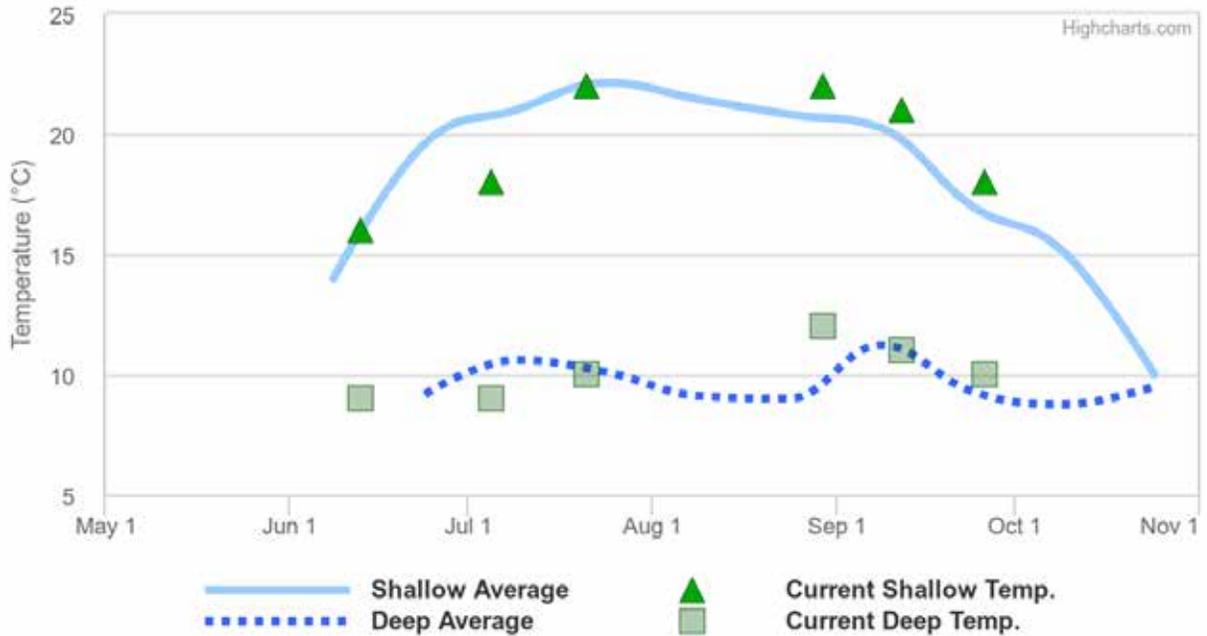
This list is not complete, but instead represents only those species that have been reported and verified within the county. If any additional aquatic invasive species (AIS) are known or suspected in these or other waterbodies in the county, this information should be reported through iMap invasives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

Aquatic Invasive Species - Essex County			
Waterbody	Kingdom	Common name	Scientific name
Augur Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Bartlett Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Butternut Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Chapel Pond	Animal	Allegheny crayfish	<i>Orconectes obscurus</i>
Eagle Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Franklin Falls Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Franklin Falls Pond	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Franklin Falls Pond	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Goodnow Flowage	Plant	Brittle naiad	<i>Najas minor</i>
Highlands Forge Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Lake Champlain	Animal	Spiny waterflea	<i>Bythotrephes longimanus</i>
Lake Champlain	Animal	Zebra mussel	<i>Dreissena polymorpha</i>
Lake Champlain	Plant	Variable watermilfoil	<i>Myriophyllum heterophyllum</i>
Lake Champlain	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Lake Champlain	Plant	Water chestnut	<i>Trapa natans</i>
Lake Eaton	Plant	European frogbit	<i>Hydrocharis morsus-ranae</i>
Lake Flower	Plant	Variable watermilfoil	<i>Myriophyllum heterophyllum</i>
Lake George	Animal	Zebra mussel	<i>Dreissena polymorpha</i>
Lake George	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Lake George	Animal	Virile crayfish	<i>Orconectes virilis</i>
Lake George	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Lake Placid	Plant	Variable watermilfoil	<i>Myriophyllum heterophyllum</i>
Lake Placid	Plant	Variable watermilfoil	<i>Myriophyllum heterophyllum</i>
Lincoln Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>

Waterbody	Kingdom	Common name	Scientific name
Long Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Long Pond	Animal	Allegheny crayfish	<i>Orconectes obscurus</i>
Minerva Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Mirror Lake	Plant	Broadleaf Water-milfoil	<i>Myriophyllum heterophyllum</i>
Mirror Lake	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Nichols Pond	Animal	Allegheny crayfish	<i>Orconectes obscurus</i>
North Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Oseetah Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Paradox Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Paradox Lake	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Paradox Lake	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Penfield Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Putnam Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Rogers Pond	Plant	European frogbit	<i>Hydrocharis morsus-ranae</i>
Schroon Lake	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>
Schroon Lake	Plant	Curly leafed pondweed	<i>Potamogeton crispus</i>
Schroon Lake	Animal	Rudd	<i>Scardinius erythrophthalmus</i>
Webb Royce Swamp	Plant	European frogbit	<i>Hydrocharis morsus-ranae</i>
Woodruff Pond	Plant	Eurasian watermilfoil	<i>Myriophyllum spicatum</i>

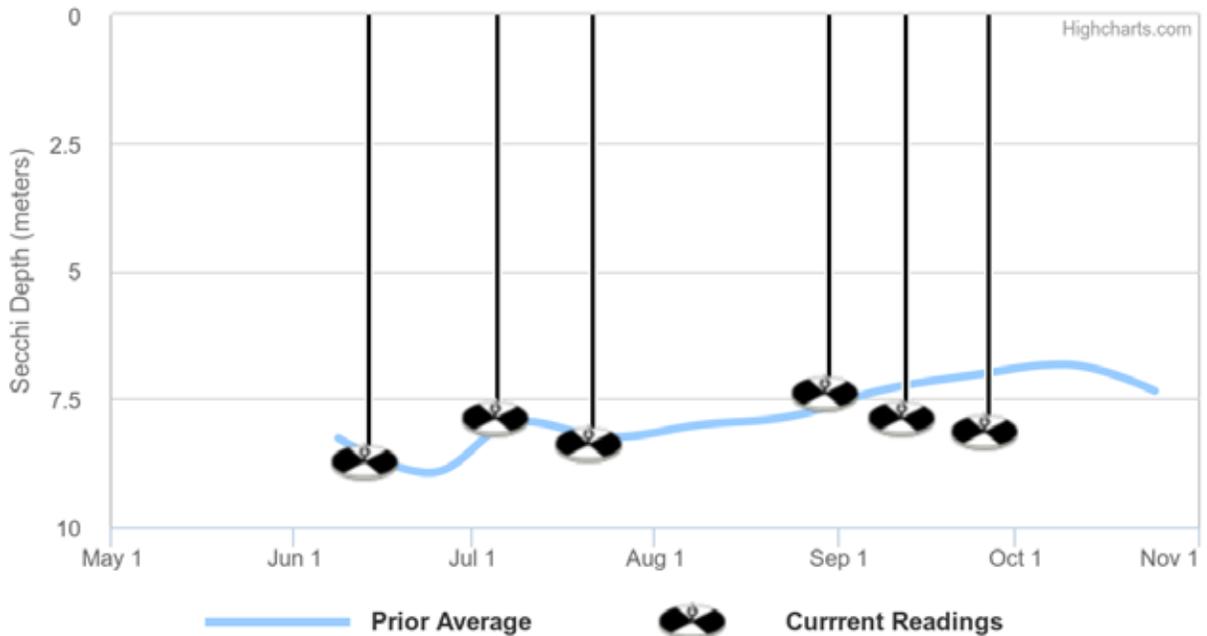
Appendix F: Current Year vs. Prior Averages for Lake Placid

Current Year Water Temperatures vs. Prior Average



This year's shallow water sample temperatures are tending to be lower than normal when compared to the average of readings collected from 1991 to 2014. This year's deep water sample temperatures are tending to be higher than normal when compared to the average of readings collected from 1993 to 2014.

Current Year Secchi Readings vs. Prior Average



This year's session Secchi readings are about the same as the average of readings collected from 1991 to 2014

Appendix G: Watershed and Land Use Map for Lake Placid

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.

