Lake Warn Questions and Answers, 2015 CSLAP

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

A1. Water quality conditions in Lake Warn continue to be favorable. Water clarity was slightly higher than usual, consistent with lower than usual algae levels, and water quality and recreational assessments were more favorable. However, phosphorus readings were slightly higher than normal, suggesting that all of these changes represent normal variability.

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, although no biological impacts have been reported.

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

A3. Lake Warn had higher water clarity, and lower nutrient and algae levels, than the typical lake in the area. Aquatic plant coverage was higher than in these other lakes in 2015.

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

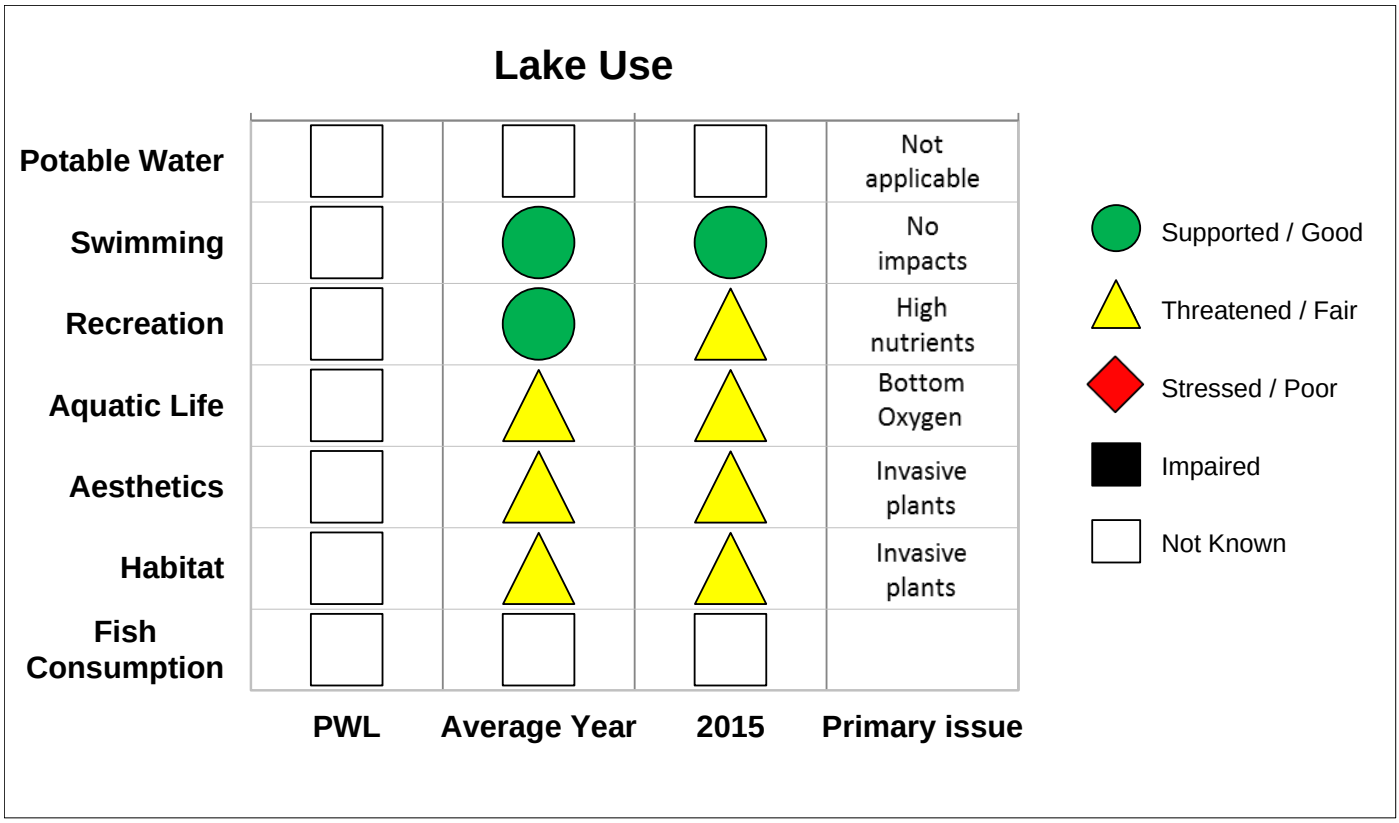
A4. pH has decreased substantially since the early 2000s, although these readings are still well within acceptable ranges for most aquatic organisms. There has been a slight increase in clarity and decrease in algae levels, but these changes have been small and erratic from year to year. Recreational and water quality assessments have also improved, but this is due in part to a slight long-term decrease in aquatic plant coverage.

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

A5. Lake Warn does not appear to be susceptible to shoreline blue green algae blooms, due to mostly low open water nutrient and algae levels. No water quality problems are apparent or could be predicted for the near future.

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.

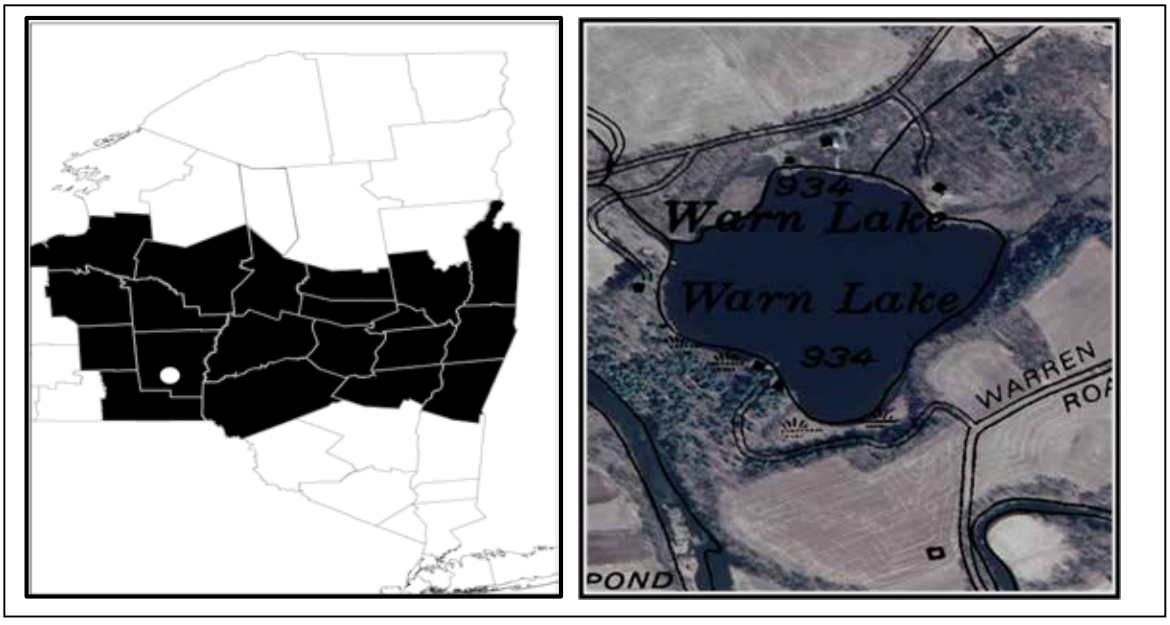


CSLAP 2015 Lake Water Quality Summary:
Lake Warn

General Lake Information

Location	Town of Oxford
County	Chenango
Basin	Susquehanna River
Size	13 hectares (32.1 acres)
Lake Origins	Natural
Watershed Area	269 hectares (664 acres)
Retention Time	0.4 years
Mean Depth	3.7 meters
Sounding Depth	8 meters
Public Access?	no
Major Tributaries	no named tribs
Lake Tributary To…	unnamed outlet to Chenango Creek to Chenango River to Susquehanna River
WQ Classification	C (non-contact recreation = boating, angling)
Lake Outlet Latitude	42.373
Lake Outlet Longitude	-75.647
Sampling Years	1991-1996, 2001-2010, 2012-2015
2015 Samplers	James and Elaine Hill
Main Contact	James and Elaine Hill

Lake Map



Background

Lake Warn is a 32 acre, class C lake found in the Town of Oxford in Chenango County, in the western Leatherstocking region of New York State. It was first sampled as part of CSLAP in 1991.

It is one of eight CSLAP lakes among the more than 150 lakes and ponds found in Chenango County, and one of 25 CSLAP lakes among the nearly 900 lakes and ponds in the Susquehanna River drainage basin.

Lake Uses

Lake Warn is a Class C lake; this means that the best intended use for the lake is for non-contact recreation—boating, aquatic life, and aesthetics. However, the lake is used by lake residents and invited guests for swimming and non-power boating. There is no public access to the lake.

It is not known whether Lake Warn has been stocked through any state fisheries stocking programs, or if any private stocking has occurred.

General statewide fishing regulations are applicable in Lake Warn. In addition, the open season for lake trout is April 1st to October 15th, with no size limits and a take limit of five fish, with no more than two fish longer than 12 inches and five brook trout under eight inches.

There are no lake-specific fish consumption advisories on Lake Warn.

Historical Water Quality Data

CSLAP sampling was conducted on Lake Warn from 1991 to 1996, 2001 to 2010, and 2012-2015. 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 Warn can also be found on the NYSDEC web page at http://www.dec.ny.gov/lands/77879.html.

Lake Warn has not been sampled through any previous NYSDEC monitoring program. It is not known if the lake has been sampled privately by the lake association or any other monitoring programs.

There are no NYSDEC RIBS monitoring sites near Lake Warn, and there are no named tributaries to the lake.

Lake Association and Management History

Lake Warn is served by the Warn Lake Association. It is not known if the lake association is actively involved in the management of the lake or if they maintain a web site.

Summary of 2015 CSLAP Sampling Results

Evaluation of 2015 Annual and Monthly 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 Warn" section in Appendix C.

Evaluation of Eutrophication Indicators

Water clarity readings were higher than usual in 2014 and 2015, and these readings have been higher since around 2008. This is consistent with a slight decrease in algae levels over the last twenty years, and these readings were higher than normal in 2015. However, phosphorus readings have increased slightly since the mid-1990s, suggesting that all of these changes may be within the normal range of variability for Lake Warn.

Lake productivity increases slightly from late summer into the fall in most years, as manifested in decreasing water clarity and increasing nutrient and algae levels. Phosphorus and chlorophyll *a* readings increased during the summer of 2015, but water clarity did not.

The lake can be characterized as *mesotrophic*, or moderately productive, based on water clarity, chlorophyll *a*, and total phosphorus readings (all typical of *mesotrophic* lakes). The trophic state indices (TSI) evaluation suggests that each of these indicators was very similar and "internally consistent"- each of these indicators could be predicted by the others. Overall trophic conditions are summarized on the Lake Scorecard and Lake Condition Summary Table.

Evaluation of Potable Water Indicators

Algae levels do not appear to be 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, and the lake is not used for drinking water. Hypolimnetic phosphorus readings are higher than those measured at the lake surface, and ammonia readings are substantially higher than those measured at the lake surface (and were higher than usual in 2015). This suggests that "unofficial" potable water use may not be supported by deepwater intakes. 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 has decreased significantly since the early 1990s (and particularly since the early 2000s), although no impacts to aquatic life have been apparent. Calcium, color, pH and conductivity readings were slightly lower than usual in 2015, but none of these indicators has exhibited any clear long-term changes.

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 below the range of values found in most NYS lakes. These readings suggest a low to 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 fluoroprobe screening samples analyzed by SUNY ESF in the last few years showed low algae levels in most samples, and a very low percentage of blue green algae in all samples, even when total algae levels are higher (indicating dominance by green algae, diatoms, or other types of algae). No shoreline blooms were reported or sampled in any of the last three years.

Only limited macrophyte surveys have been conducted through CSLAP in Lake Warn. Only three aquatic plant species have been found, including at least two exotic plant species (*Myriophyllum spicatum,* Eurasian watermilfoil, and *Potamogeton crispus,* curly-leafed pondweed). The latter plant was reported for the first time in 2012. There is insufficient information to develop even a modified floristic quality index (FQI) for the lake.

Zooplankton and macroinvertebrate surveys have not been conducted through CSLAP at Lake Warn.

The composition of the fish community has not been reported, although it is likely that the lake supports a warmwater to coolwater fishery.

Evaluation of Lake Perception

Recreational assessments were slightly more favorable than normal in the last few years, due to slightly more favorable water quality assessments over this period. However, all assessments (recreational and water quality) have improved since the early 1990s, and aquatic plant coverage has decreased over this period. Water quality assessments are usually less favorable in late summer, consistent with the seasonal decrease in water clarity and increase in algae levels. These seasonal trends were not apparent in 2015. Overall lake perception is summarized on the Lake Scorecard and Lake Condition Summary Table.

Evaluation of Local Climate Change

Air and water temperature readings in the summer index period were close to normal in the last few years, and neither air nor water temperatures has exhibited any clear long-term trends. It is not known if this is an indication of the lack 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 samping results did not find any evidence of open water harmful algal blooms (HABs), due to very low blue green algae levels. An analysis of algae samples indicate microcystin readings well below the levels needed to support safe swimming in the open water. No shoreline blooms have been reported in the last several years, including 2015.

Lake Condition Summary

Category	Indicator	Min	Overall Avg	Max	2015 Avg	Classification	2015 Change?	Long-term Change?
Eutrophication Indicators	Water Clarity	1.55	3.25	5.50	3.61	Mesotrophic	Within Normal Range	No Change
	Chlorophyll *a*	0.60	4.72	20.40	3.93	Mesotrophic	Within Normal Range	No Change
	Total Phosphorus	0.004	0.013	0.043	0.015	Mesotrophic	Within Normal Range	No Change
Potable Water Indicators	Hypolimnetic Ammonia	0.01	0.52	1.83	1.21	Highly Elevated Deepwater NH4	Higher than Normal	Not known
	Hypolimnetic Arsenic							Not known
	Hypolimnetic Iron							Not known
	Hypolimnetic Manganese							Not known
Limnological Indicators	Hypolimnetic Phosphorus	0.005	0.055	0.188	0.053	Close to Surface TP Readings	Within Normal Range	Not known
	Nitrate + Nitrite	0.00	0.02	0.28	0.01	Low NOx	Within Normal Range	No Change
	Ammonia	0.00	0.03	0.15	0.02	Low Ammonia	Within Normal Range	No Change
	Total Nitrogen	0.01	0.44	0.79	0.46	Low Total Nitrogen	Within Normal Range	No Change
	pH	5.93	7.69	8.99	7.54	Alkaline	Within Normal Range	Decreasing Significantly
	Specific Conductance	126	253	323	221	Hardwater	Within Normal Range	No Change
	True Color	1	22	57	13	Intermediate Color	Within Normal Range	No Change
	Calcium	9.3	41.5	54.1	27.6	Highly Susceptible to Zebra Mussels	Lower Than Normal	No Change
Lake Perception	WQ Assessment	1	2.4	4	2.1	Not Quite Crystal Clear	Within Normal Range	Highly Improving
	Aquatic Plant Coverage	2	3.1	4	3.0	Surface Plant Growth	Within Normal Range	Slightly Decreasing
	Recreational Assessment	1	2.6	4	2.4	Slightly Impaired	Within Normal Range	Highly Improving
Biological Condition	Phytoplankton					Open water-low blue green algae biomass	Not known	Not known
	Macrophytes					Limited aquatic plant information	Not known	Not known
	Zooplankton					Not measured through CSLAP	Not known	Not known
	Macroinvertebrates					Not measured through CSLAP	Not known	Not known
	Fish					Warmwater fishery?	Not known	Not known
	Invasive Species					Eurasian watermilfoil, curly-leafed pondweed	Not known	Not known
Local Climate Change	Air Temperature	10	21.4	30	21.6		Within Normal Range	No Change
	Water Temperature	13	22.4	28	23.1		Within Normal Range	No Change
Harmful Algal Blooms	Open Water Phycocyanin	0	11	94	4	No readings indicate high risk of BGA	Not known	Not known
	Open Water FP Chl.a	0	2	10	1	Few 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	0.8	<DL	Low to undetectable open water microcystins	Not known	Not known
	Open Water Anatoxin a	<DL	<DL	0.0	<DL	Open water Anatoxin-a at times detectable	Not known	Not known
	Shoreline Phycocyanin					No shoreline blooms sampled for PC	Not known	Not known
	Shoreline FP Chl.a					No shoreline blooms sampled for FP	Not known	Not known
	Shoreline FP BG Chl.a					No shoreline blooms sampled for FP	Not known	Not known
	Shoreline Microcystis					No shoreline bloom MC-LR data	Not known	Not known
	Shoreline Anatoxin a					No shoreline bloom anatoxin data	Not known	Not known

Evaluation of Lake Condition Impacts to Lake Uses

Lake Warn is presently among the lakes listed on the 2009 Susquehanna River drainage basin Priority Waterbody List (PWL), with recreation listed as *stressed* due to excessive weed growth. The PWL listing for Lake Warn is provided in Appendix B.

Potable Water (Drinking Water)

The CSLAP dataset at Lake Warn, 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 relatively low algae levels in the lake suggest that potable water use of the lake might be supported, although elevated deepwater ammonia levels may compromise unofficial use of the bottom waters for drinking.

Public Bathing

The CSLAP dataset at Lake Warn, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggests that public bathing, if conducted at a public bathing beach, should be fully supported, although additional information about bacterial levels is needed to evaluate the safety of the water for swimming. Occasionally poor recreational assessments associated with dense weeds and excessive algae may indicate a *threat* to these uses, but this was not apparent in the last few years.

Recreation (Swimming and Non-Contact Uses)

The CSLAP dataset on Lake Warn, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that recreation should be fully supported although this use may be *threatened* by excessive nutrients, excessive weeds and the presence of Eurasian watermilfoil. Lower aquatic plant coverage in recent years indicated that no impacts are presently apparent.

Aquatic Life

The CSLAP dataset on Lake Warn, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that aquatic life may be *threatened* by road salt runoff, deepwater hypoxia and the presence of exotic plants. 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 Warn, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that aesthetics should be fully supported, although this use may be *threatened* by excessive weeds. Habitat may be *threatened* by invasive plants.

Fish Consumption

There are no fish consumption advisories posted for Lake Warn.

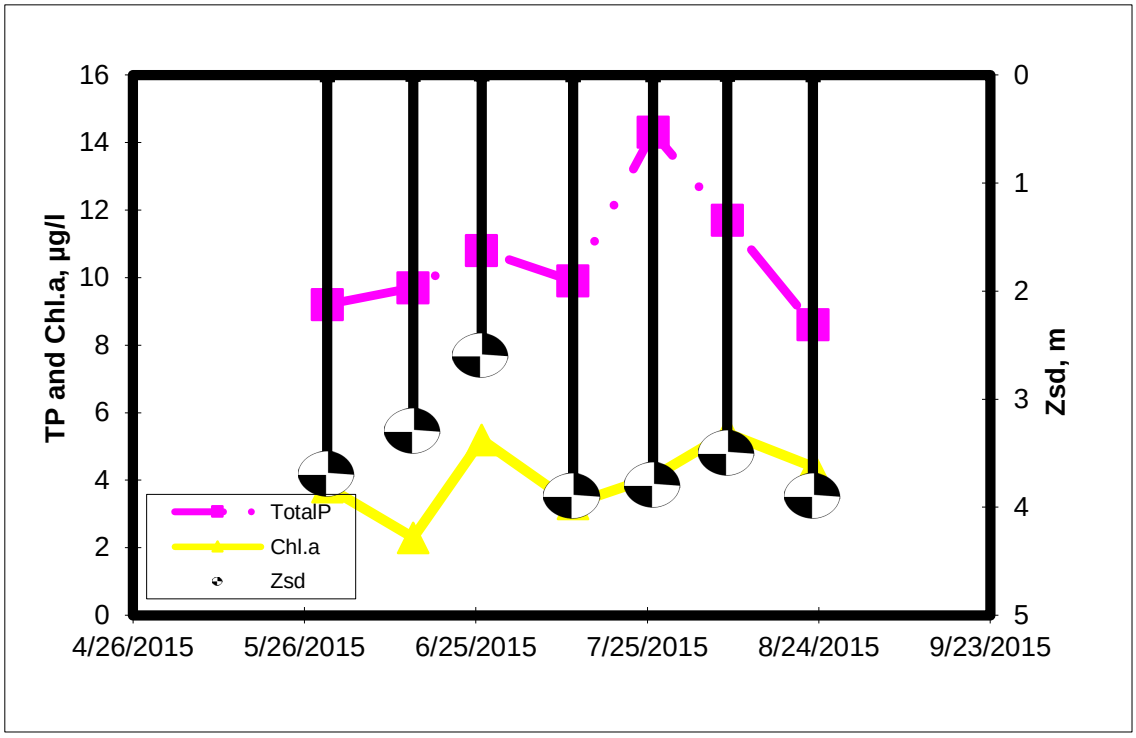
Additional Comments and Recommendations

A more detailed aquatic plant survey will help to determine if any biological impacts occur and the extent to which Eurasian watermilfoil or curly-leafed pondweed dominates the aquatic plant community in Lake Warn. The presence of shoreline algae blooms should also be reported.

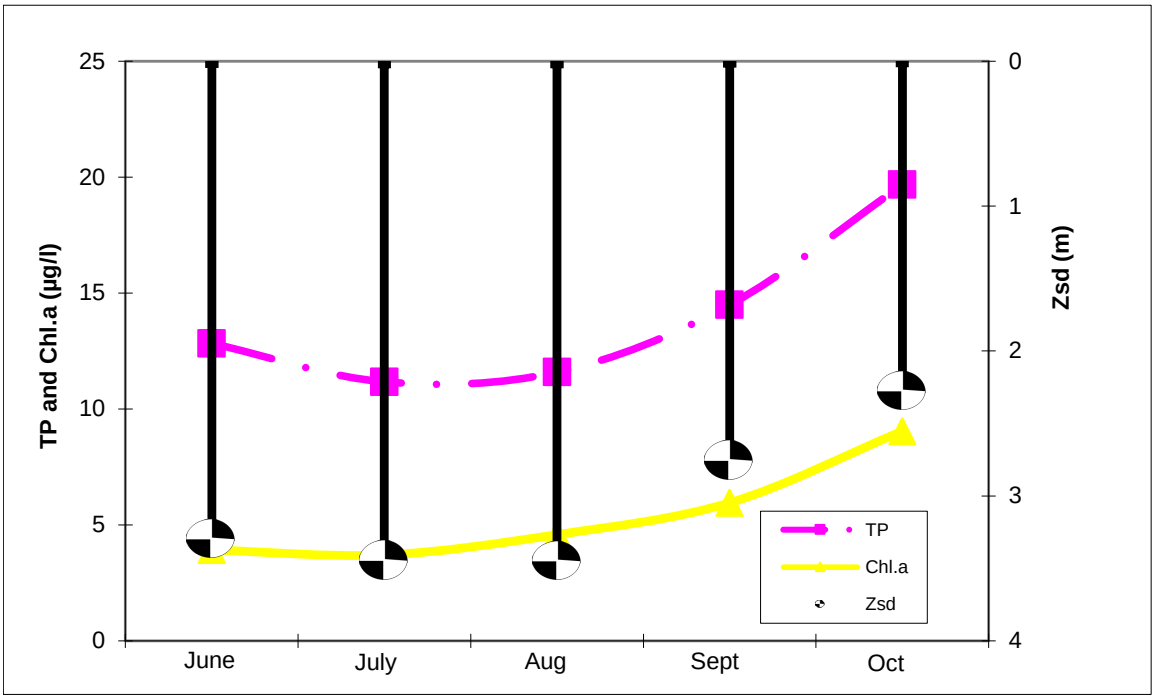
Aquatic Plant IDs-2015

No plants were submitted for identification in 2015.

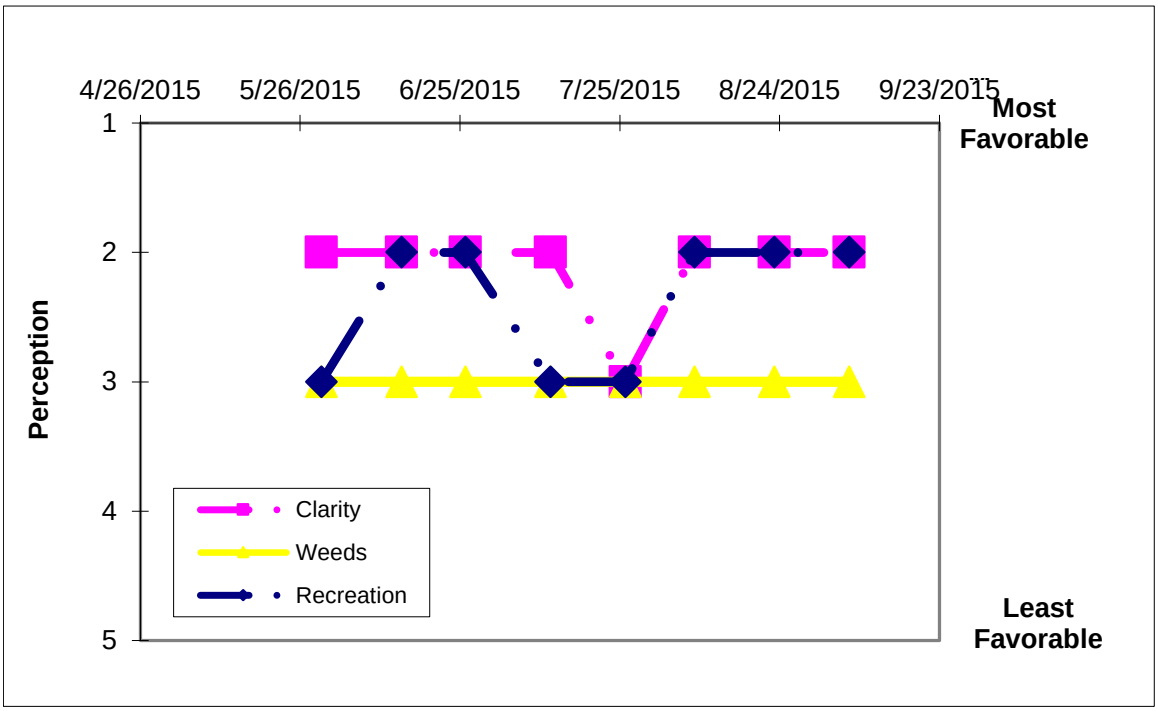
Time Series: Trophic Indicators, 2015



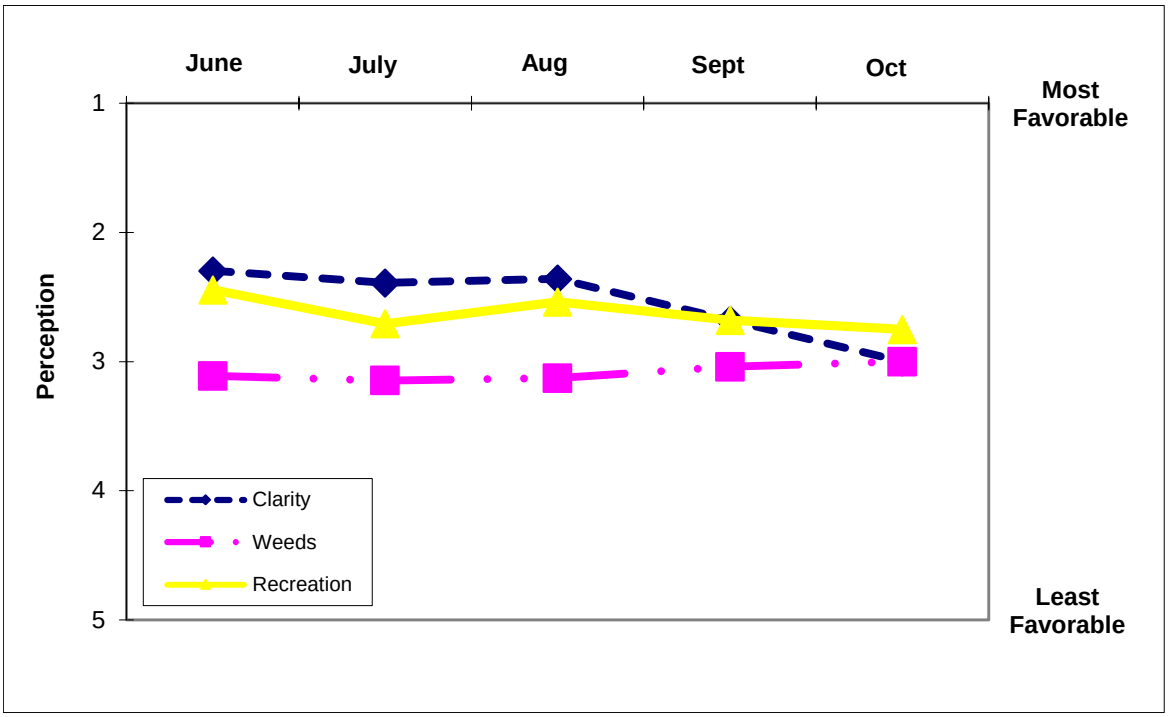
Time Series: Trophic Indicators, Typical Year (1991-2015)



Time Series: Lake Perception Indicators, 2015



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



Appendix A- CSLAP Water Quality Sampling Results for Lake Warn

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
95	L Warn	6/30/1991	6.5	2.88	1.5	0.009	0.01				16	8.31	190		3.83	
95	L Warn	7/14/1991	8.0	3.38	1.5	0.011	0.01				17	7.86	275		3.90	
95	L Warn	7/28/1991	8.0	4.25	1.5	0.029	0.01				15	8.29	234		3.32	
95	L Warn	8/11/1991	8.0	4.13	1.5	0.020	0.01				18	8.42	220		6.73	
95	L Warn	8/25/1991	8.0	3.38	1.5	0.015	0.01				19	8.41	228		6.29	
95	L Warn	9/8/1991	8.0	3.25	1.5	0.010	0.01				19	8.43	252		4.61	
95	L Warn	9/14/1991	8.0	3.13	1.5	0.012	0.01				19	8.38	235		6.14	
95	L Warn	10/6/1991	8.0	2.38	1.5	0.021	0.01				22	8.35	209		9.49	
95	L Warn	6/7/1992	6.5	3.13	1.5	0.013	0.07				17	8.40	274		4.15	
95	L Warn	6/21/1992	6.5	3.13	1.5	0.014	0.01				19	8.40	279		5.95	
95	L Warn	7/5/1992	6.5	3.13	1.5	0.012	0.01				18	8.52	283		5.10	
95	L Warn	7/19/1992	6.5	3.13	1.5	0.009					17	8.44	280		3.81	
95	L Warn	8/2/1992	6.5	3.13	1.5	0.012	0.01				18	8.44	276		5.44	
95	L Warn	8/16/1992	6.5	3.38	1.5	0.009					17	8.40	276		4.81	
95	L Warn	8/30/1992	6.5	3.38	1.5	0.008	0.01				18	8.30	276		4.84	
95	L Warn	9/13/1992	6.5	3.38	1.5	0.015					22	8.45	267		4.81	
95	L Warn	6/13/1993	6.5	4.13	1.5	0.015	0.01				13	5.93	284		2.45	
95	L Warn	6/27/1993	6.5	2.88	1.5	0.011	0.01				16	8.19	281		3.74	
95	L Warn	7/11/1993	6.5	3.88	1.5	0.008	0.01				13	8.24	280		2.79	
95	L Warn	7/25/1993	6.5	3.88	1.5	0.008					13	8.20	282		3.19	
95	L Warn	8/8/1993	6.5	3.25	1.5	0.011	0.01				15	8.34	287		5.52	
95	L Warn	8/22/1993	6.5	3.38	1.5	0.009					18	8.30	280		6.65	
95	L Warn	9/5/1993	6.5	3.13	1.5	0.008	0.01				18	8.37	275		5.85	
95	L Warn	9/19/1993	6.5	3.13	1.5	0.012					17	8.50	280		7.97	
95	L Warn	6/5/1994	8.0	4.13	1.5	0.016	0.02				12	8.14	301		8.14	
95	L Warn	6/19/1994	8.0	3.13	1.5	0.007	0.01				12	8.13	282		2.28	
95	L Warn	7/3/1994	8.0	3.13	1.5	0.010					17	8.19	269		3.82	
95	L Warn	7/17/1994	8.0	2.88	1.5	0.008					17	7.88	284		2.81	
95	L Warn	7/30/1994	8.0	2.88	1.5	0.009					17	8.10	281		5.15	
95	L Warn	8/13/1994	8.0	2.63	1.5	0.009	0.01				19	8.21	287		8.21	
95	L Warn	8/28/1994	8.0	3.38	1.5	0.011					22	8.26	279		4.73	
95	L Warn	9/11/1994	8.0	2.63	1.5	0.012					23	8.02	292		7.24	
95	L Warn	6/18/1995	8.0	2.88	1.5	0.014	0.03				17	8.32	288		4.60	
95	L Warn	7/2/1995	8.0	2.63	1.5	0.008	0.01				10	8.24	288		3.85	
95	L Warn	7/16/1995	8.0	3.63	1.5	0.008	0.01				10				1.82	
95	L Warn	7/29/1995	8.0	3.88	1.5	0.011					10	8.07	292		3.41	
95	L Warn	8/13/1995	8.0	4.38	1.5	0.010	0.01				10	8.21	294		5.24	
95	L Warn	8/27/1995	8.0	3.63	1.5	0.008	0.01				10	8.50	290		3.73	
95	L Warn	9/10/1995	8.0	2.88	1.5	0.011	0.01				15	8.29	294		5.88	
95	L Warn	9/24/1995	8.0	2.38	1.5	0.013	0.01				15	8.20	296		7.30	
95	L Warn	7/8/2001	7.6	3.85		0.013	0.01				17	8.19	305		5.75	
95	L Warn	7/22/2001	8.0	3.45	1.0	0.010	0.01				14	7.72	311		3.14	
95	L Warn	8/5/2001	8.0	3.70	1.5	0.014	0.01				12	8.23	309		3.60	
95	L Warn	8/19/2001	8.0	3.45	1.5	0.010	0.01				15	8.11	312		3.69	
95	L Warn	9/3/2001	8.0	2.60	1.5	0.016	0.01				16	8.09	316		8.92	
95	L Warn	9/15/2001		2.20	1.0	0.014	0.01				17	7.95	314		5.69	
95	L Warn	6/23/2002	7.2	1.85	1.0	0.019	0.00	0.01	0.04	4.33	16	8.13	307		3.14	
95	L Warn	7/7/2002	7.2	1.95	1.5	0.011	0.00	0.01	0.53	102.49	19	8.21	306		4.11	
95	L Warn	7/21/2002	7.4	3.70	1.5	0.004	0.01	0.03	0.57	348.07	22	8.20	318		1.47	
95	L Warn	8/4/2002	7.4	3.50	1.0	0.009	0.00	0.01	0.61	154.19	17	8.23	296			
95	L Warn	8/17/2002	7.4	3.50	1.0	0.009	0.00	0.03	0.61	154.33	20	8.18	321	9.27	1.59	
95	L Warn	9/1/2002	7.5	2.90	1.0	0.008	0.00	0.01	0.55	152.71	13	8.22	314		2.80	
95	L Warn	9/21/2002	8.0	2.40	1.0	0.017	0.00	0.01	0.56	73.42	17	8.41	323		2.95	
95	L Warn	10/6/2002		2.60	1.5	0.012	0.00	0.02	0.56	100.32	14	8.14	318		3.34	
95	L Warn	6/8/2003		3.40	1.5		0.018	0.020	0.35		10	8.3	322	48	3.72	
95	L Warn	6/22/2003		2.55	1.5	0.009	0.003	0.003	0.33	76.46	11	8.3	292		5.68	
95	L Warn	7/7/2003		2.50	1.5	0.011	0.003	0.003	0.32	64.01	13	8.3	320		3.98	
95	L Warn	7/20/2003		4.50	1.5	0.007	0.010	0.034	0.52	162.73	17	8.3	322		1.45	
95	L Warn	8/3/2003		4.60	1.5	0.008	0.014	0.007	0.24	68.84	14	7.8	306	46	2.57	
95	L Warn	8/17/2003		4.50	1.5	0.009	0.003	0.013	0.45	113.73	13	7.9	302		2.33	
95	L Warn	8/31/2003		4.10	1.5	0.011	0.009	0.040	0.43	38.0	17	7.9	310		2.87	
95	L Warn	9/21/2003		2.70	1.5	0.013	0.003	0.014	0.21	35.08	13	8.0	312		4.17	
95	L Warn	6/20/2004	8.0	3.30	1.5	0.024	0.02	0.03	0.43	39.93	45	6.64	286		3.83	

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
95	L Warn	7/4/2004	8.0	2.30	1.5	0.010	0.01	0.01			35	6.03	271		1.10	
95	L Warn	7/17/2004	8.0	3.55	1.5	0.009	0.02	0.01	0.55	133.99	41	6.07	249		1.20	
95	L Warn	8/1/2004	8.0	3.80	1.5	0.018	0.03	0.03	0.49	61.45	24	7.07	237		4.00	
95	L Warn	8/14/2004	8.0	3.20	1.5	0.012	0.01	0.01			13	7.17	202	37.4	7.07	
95	L Warn	8/29/2004	8.0	2.20	1.5		0.24	0.04	0.43		12	8.99	248		6.80	
95	L Warn	9/12/2004	8.0	1.55	1.5	0.025	0.01	0.01	0.52	45.84	19	7.36	249		8.10	
95	L Warn	9/26/2004	8.0	2.05	1.5	0.012	0.02	0.03	0.43	39.93	20	7.73	152		3.28	
95	L Warn	7/10/2005	8.00	3.70	1.5	0.007	0.03	0.01	0.44	136.41	47	7.60	206	44.9	4.14	
95	L Warn	7/21/2005	8.00	3.50	1.5	0.010	0.05	0.02	0.40	87.36	10	7.03	235		2.20	
95	L Warn	8/7/2005	8.00	4.00	1.5	0.011	0.28	0.03	0.73	141.49	50	7.56	215		2.60	
95	L Warn	8/21/2005	8.00	2.90	1.5	0.014	0.01	0.01	0.17	26.89	33	7.33	212		1.57	
95	L Warn	9/4/2005	8.00	2.10	1.5	0.018	0.01	0.01	0.24	30.50	17	7.18	235	50.5	7.92	
95	L Warn	9/26/2005	8.00	2.70	1.5	0.013	0.01	0.01	0.27	47.26	20	7.39	250		5.26	
95	L Warn	10/2/2005	8.00	2.10	1.5	0.019	0.07	0.03	0.27	31.93	26	7.25	212		11.88	
95	L Warn	10/21/05	8.00	1.70	1.5	0.030	0.18	0.01	0.30	10.21	54	7.09	179		12.61	
95	L Warn	6/4/2006	8.0	1.90	1.5	0.012	0.04	0.05	0.67	119.42	13		225	47.5	6.34	
95	L Warn	6/18/2006	8.0	2.10	1.5	0.014	0.02	0.01	0.67	107.72	30	7.66	219		7.74	
95	L Warn	7/9/2006	8.0	2.60	1.5	0.016	0.05	0.02	0.79	109.74	37	7.54	192		2.80	
95	L Warn	7/23/2006	8.0	2.40	1.5	0.014	0.02	0.03	0.64	102.27	35	7.41	244		10.64	
95	L Warn	7/30/2006	8.0	2.50	1.5	0.009	0.01	0.01	0.58	137.61	37	7.43	196	44.1	5.05	
95	L Warn	8/28/2006	8.0	4.00	1.5	0.009	0.05	0.05	0.60	144.39	23	7.34	181		4.25	
95	L Warn	9/4/2006	8.0	3.10	1.5	0.009			0.43	102.65	28	7.86	141		8.63	
95	L Warn	7/2/2007	8.0	3.20	1.5	0.013	0.01	0.02	0.56	97.26	39	7.5	160	54.1	6.67	
95	L Warn	7/13/2007	8.0	2.30	1.5	0.012	0.01	0.01	0.50	93.84	48	7.3	232		4.57	
95	L Warn	7/29/2007	8.0	3.50	1.5	0.013	0.01	0.02	0.54	90.89	31	7.4	237		3.69	
95	L Warn	8/12/2007		3.50	1.5	0.013	0.01	0.01	0.64	112.39	36	7.4	195		4.21	
95	L Warn	8/26/2007	8.0	2.20	1.5	0.016	0.00	0.01	0.62	86.77	57	7.8	223	41.4	7.35	
95	L Warn	9/16/2007	8.0	1.80	1.5	0.017	0.01	0.01	0.77	97.34	28	7.5	220		10.72	
95	L Warn	9/22/2007		2.90	1.5	0.015	0.03	0.03	0.79	114.58	1	7.8	208		5.05	
95	L Warn	10/7/2007		2.60	1.5	0.017	0.01	0.02	0.69	91.40	37	7.3	264		7.89	
95	L Warn	6/2/2008	8.0	2.70	1.5	0.014	0.02	0.00	0.39	62.43	9	7.1	174	54	2.86	
95	L Warn	6/15/2008	8.0	3.40	1.5	0.011	0.01	0.03	0.42	86.17	11	7.0	247		3.30	
95	L Warn	6/29/2008	8.0	2.70	1.5	0.011	0.00	0.05	0.38	77.84	10	7.4	231		2.67	
95	L Warn	7/12/2008	8.0	2.70	1.5	0.011	0.02	0.10	0.51	102.36	16	7.4	212		3.97	
95	L Warn	7/27/2008	8.0	2.70	1.5	0.012	0.01	0.00	0.34	63.21	10	7.3	150	38	4.94	
95	L Warn	8/9/2008	8.0	3.10	1.5	0.012	0.00	0.01	0.31	57.59	6	7.5	224		3.23	
95	L Warn	8/24/2008	8.0	3.60	1.5	0.010	0.00	0.02	0.36	79.72	30	7.0	199		3.20	
95	L Warn	9/7/2008		2.70	1.5	0.013	0.00	0.11	0.47	77.19	39	7.3	217		6.24	
95	L Warn	06/23/2009	8.0	5.10	1.5	0.009	0.01	0.05	0.36	91.58	51	7.57	228	40.1	3.67	
95	L Warn	07/06/2009	8.0	4.90	1.5	0.008	0.02	0.04	0.38	99.79	54	7.20	208		1.30	
95	L Warn	07/20/2009	8.0	4.40	1.5	0.012	0.02	0.03	0.28	52.72	55	7.04	200		3.12	
95	L Warn	08/02/2009	8.0	2.60	1.5	0.014	0.01	0.02	0.36	56.48	46	7.04	173		5.54	
95	L Warn	08/16/2009	8.0	3.20	1.5	0.015	0.01	0.02	0.41	60.83	45	7.84	190	35.6	4.80	
95	L Warn	08/30/2009	8.0	2.90	1.5	0.012	0.03	0.02	0.33	60.18	49	7.35	224		5.60	
95	L Warn	09/14/2009	8.0	3.10	1.5	0.015	0.01	0.01	0.27	40.56	47	7.06	200		4.60	
95	L Warn	09/26/2009	8.0	2.50	1.5	0.017	0.01	0.02	0.45	59.37	48	6.97	206		7.50	
95	L Warn	5/16/2010		2.10	1.5	0.012	0.03	0.04	0.59	106.07	26	7.62	260	48.7	20.40	
95	L Warn	5/29/2010	8.0	3.60	1.5	0.011	0.01	0.05			10	7.59	260		2.20	
95	L Warn	6/14/2010	8.0	3.30	1.5	0.014	0.01	0.04				7.28	263		0.60	
95	L Warn	6/28/2010	8.0	3.80	1.5	0.013	0.01	0.05			16	7.21	248		2.80	
95	L Warn	7/11/2010		4.40	1.5	0.012	0.01	0.02	0.34	64.67	8	7.57	246	43.2	3.60	
95	L Warn	7/26/2010	8.0	3.80	1.5	0.012	0.01	0.02	0.37	69.01	14	7.45	242		3.30	
95	L Warn	8/8/2010		4.10	1.5	0.012	0.08	0.02	0.34	61.35	11	7.66	194		4.00	
95	L Warn	8/27/2010		3.60	1.5	0.016	0.01	0.05	0.43	59.59	16	7.50	266		4.80	
95	L Warn	6/2/2012	8.0	4.70	1.5	0.010	0.01	0.13	0.45	99.00	29	7.12	228	49.8	2.40	
95	L Warn	6/17/2012	8.0	5.50	1.5	0.010	0.01	0.11	0.53	114.36	44	7.54	267		2.10	
95	L Warn	7/1/2012	8.0	4.70	1.5	0.010	0.01	0.04	0.31	71.79	37	7.48	259			
95	L Warn	7/15/2012		3.80	1.5	0.011	0.01	0.01	0.44	90.49	36	7.35	262		3.60	
95	L Warn	7/29/2012	8.0	4.80	1.5	0.011	0.01	0.03	0.48	96.20	20	7.40	284	47.3	7.80	
95	L Warn	8/12/2012	8.0	3.70	1.5	0.010	0.01	0.15	0.40	85.25	8	7.66	259		4.30	
95	L Warn	8/26/2012		3.40	1.5	0.019	0.01	0.02	0.56	64.95	17	7.00	256		5.50	
95	L Warn	9/9/2012	8.0	2.00	1.5	0.020	0.01	0.06	0.41	44.77	16	7.20	251		7.40	
95	L Warn	6/1/2013	8.0	3.50	1.5	0.013	0.02	0.02	0.40	68.22	30	7.38	256	42.5	2.70	
95	L Warn	6/16/2013	8.0	2.00	1.5	0.012			0.43	78.28		7.27	268		4.60	
95	L Warn	6/30/2013		2.70	1.5	0.022	0.01	0.01	0.38	37.94	33	7.29	265		5.50	
95	L Warn	7/14/2013	8.0	3.50	1.5	0.012			0.04	7.54	34	7.32	262		1.70	

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
95	L Warn	7/27/2013	8.0	3.50	1.5	0.012	0.01	0.02	0.42	76.36	36	7.12	241			
95	L Warn	8/11/2013		2.60	1.5	0.016			0.53	75.24	34	7.06	252		5.30	
95	L Warn	8/25/2013		3.30	1.5	0.010	0.01	0.05	0.43	96.31	29	7.26	268		2.60	
95	L Warn	9/9/2013	8.0	2.90	1.5	0.011			0.47	94.16	36	7.20	266		4.80	
95	L Warn	6/1/2014	9	5.30	1.5	0.010	0.02	0.04	0.36	79.86	22	7.00	265	40.6	2.80	
95	L Warn	6/14/2014	9	2.80	1.5	0.011			0.36	75.34	13	7.01	258		5.50	
95	L Warn	6/29/2014	9	4.20	1.5	0.011	0.02	0.03	0.38	78.02	13	7.22	258		2.90	
95	L Warn	7/13/2014	9	3.70	1.5	0.020			0.37	41.43	12	7.20	253		3.80	
95	L Warn	7/26/2014	9	3.10	1.5	0.014	0.01	0.03	0.45	71.38	12	7.18	228	36.8	6.10	
95	L Warn	8/9/2014	9	4.50	1.5	0.010			0.47	101.29	7	7.20	254		2.80	
95	L Warn	8/24/2014	9	2.70	1.5	0.011	0.01	0.02	0.47	94.00	13	7.21	257		5.00	
95	L Warn	9/7/2014	9	4.10	1.5	0.010			0.40	87.56	13	6.92	254		4.00	
95	L Warn	5/30/2015	8	3.70	1.5	0.009	0.01	0.02	0.36	39.02	10	7.41	126	31.2	3.80	
95	L Warn	6/14/2015	8	3.30	1.5	0.010			0.36	37.42	7	7.63	268		2.30	
95	L Warn	6/26/2015	8	2.60	1.5	0.011	0.01	0.02	0.27	25.28	9	7.81	265		5.20	16.9
95	L Warn	7/12/2015	8	3.90	1.5	0.010			0.50	50.91	13	7.09	132		3.30	
95	L Warn	7/26/2015	8	3.80	1.5	0.014	0.01	0.02	0.40	28.05	22	7.34	242	23.9	4.10	
95	L Warn	8/8/2015	8	3.50	1.5	0.012			0.56	47.52	18	8.02	235		5.40	
95	L Warn	8/23/2015	8	3.90	1.5	0.009	0.00	0.02	0.63	73.72	10	7.42	240		4.40	15.1
95	L Warn	9/6/2015	8	4.20	1.5	0.043			0.60	13.93	13	7.62	261		2.90	
95	L Warn	7/7/2002	7.2	1.95	6.0	0.042	0.00	0.20	0.73	17.54						
95	L Warn	7/21/2002	7.4	3.70	6.2	0.029	0.01	0.18	0.76	26.61						
95	L Warn	8/4/2002	7.4	3.50	6.2	0.046	0.00	0.18	0.99	21.49						
95	L Warn	8/17/2002	7.4	3.50	6.4	0.020	0.00	0.02	0.54	26.56						
95	L Warn	9/1/2002	7.5	2.90	6.5	0.035	0.00	0.01	0.73	21.29						
95	L Warn	9/21/2002	8.0	2.40	7.5	0.044	0.00	0.01	0.74	17.06						
95	L Warn	10/6/2002		2.60	7.5	0.019	0.00	0.02	0.52	26.97						
95	L Warn	6/22/2003				0.039	0.003	0.758	0.74	18.9						
95	L Warn	7/7/2003				0.084	0.019	0.825	0.93	11.1						
95	L Warn	7/20/2003				0.025	0.003	0.770	0.72	29.2						
95	L Warn	8/3/2003				0.023	0.022	0.670	0.70	30.7						
95	L Warn	8/17/2003				0.021	0.003	0.609	0.79	37.1						
95	L Warn	8/31/2003				0.076	0.003	0.772	0.84	11.1						
95	L Warn	9/21/2003				0.025	0.003	0.191	0.43	16.9						
95	L Warn	6/20/2004			7.0	0.005										
95	L Warn	7/4/2004			7.0	0.024										
95	L Warn	7/17/2004			7.0	0.101										
95	L Warn	8/1/2004			7.0	0.054										
95	L Warn	8/14/2004			7.0	0.051										
95	L Warn	8/29/2004			7.0	0.090										
95	L Warn	9/12/2004			7.0	0.048										
95	L Warn	9/26/2004			7.0	0.047										
95	L Warn	8/7/2005	8.00			0.053										
95	L Warn	8/21/2005	8.00			0.091										
95	L Warn	9/4/2005	8.00			0.043										
95	L Warn	9/26/2005	8.00		7.0	0.038										
95	L Warn	10/2/2005	8.00		7.0	0.021										
95	L Warn	10/21/05	8.00		7.0	0.024										
95	L Warn	6/4/2006	8.0		7.0	0.045										
95	L Warn	6/18/2006	8.0		7.0	0.077										
95	L Warn	7/9/2006	8.0		7.0	0.086										
95	L Warn	7/23/2006	8.0		7.0	0.134										
95	L Warn	7/30/2006	8.0		7.0	0.075										
95	L Warn	8/28/2006	8.0		7.0	0.044										
95	L Warn	9/4/2006	8.0		7.0	0.035										
95	L Warn	7/2/2007	8.0		7.0	0.054										
95	L Warn	7/13/2007	8.0		7.0	0.100										
95	L Warn	7/29/2007	8.0		7.0	0.105										
95	L Warn	8/12/2007			7.0	0.188										
95	L Warn	8/26/2007	8.0		7.0	0.071										
95	L Warn	9/16/2007	8.0		7.0	0.067										
95	L Warn	9/22/2007			7.0	0.075										
95	L Warn	10/7/2007			7.0	0.072										
95	L Warn	6/2/2008	8.0		7.0	0.064										
95	L Warn	6/15/2008	8.0		7.0	0.065										
95	L Warn	6/29/2008	8.0		7.0	0.024										

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
95	L Warn	7/12/2008	8.0		7.0	0.025										
95	L Warn	7/27/2008	8.0		7.0	0.137										
95	L Warn	8/9/2008	8.0		7.0	0.099										
95	L Warn	8/24/2008	8.0		7.0	0.068										
95	L Warn	9/7/2008			7.0	0.096										
95	L Warn	06/23/2009			7.0	0.036		0.12								
95	L Warn	07/06/2009			7.0	0.013		0.42								
95	L Warn	07/20/2009			7.0	0.012		0.69								
95	L Warn	08/02/2009			7.0	0.015		0.42								
95	L Warn	08/16/2009			7.0	0.059		0.01								
95	L Warn	08/30/2009			7.0	0.063		0.22								
95	L Warn	09/14/2009			7.0	0.099		0.15								
95	L Warn	09/26/2009			7.0	0.087		1.69								
95	L Warn	5/16/2010			7.0	0.016		0.61								
95	L Warn	5/29/2010	8.0		7.0	0.040		0.28								
95	L Warn	6/14/2010	8.0		7.0	0.035		0.11								
95	L Warn	6/28/2010	8.0		7.0	0.016		0.21								
95	L Warn	7/11/2010			7.0	0.018		0.34								
95	L Warn	7/26/2010	8.0		7.0	0.028		0.12								
95	L Warn	8/8/2010			7.0	0.057		0.03								
95	L Warn	8/27/2010			7.0	0.047		0.17								
95	L Warn	7/14/2013			7.0	0.049										
95	L Warn	7/27/2013			7.0	0.029		0.02								
95	L Warn	8/11/2013			7.0	0.020										
95	L Warn	8/25/2013			7.0	0.022		0.43								
95	L Warn	9/9/2013			7.0	0.037										
95	L Warn	6/1/2014			7.5	0.053		0.12								
95	L Warn	6/14/2014			7.5	0.160										
95	L Warn	6/29/2014			7.5	0.067		0.60								
95	L Warn	7/13/2014			7.5	0.050										
95	L Warn	7/26/2014			7.5	0.085		1.83								
95	L Warn	8/9/2014			7.5	0.035										
95	L Warn	8/24/2014			7.5	0.044		0.97								
95	L Warn	9/7/2014			7.5	0.095										
95	L Warn	5/30/2015			7.5	0.024		1.25								
95	L Warn	6/14/2015			7.5	0.043										
95	L Warn	6/26/2015			7.5	0.050		1.14								
95	L Warn	7/12/2015			7.5	0.071										
95	L Warn	7/26/2015			7.5	0.046		1.17								
95	L Warn	8/8/2015			7.5	0.063										
95	L Warn	8/23/2015			7.5	0.117		1.27								
95	L Warn	9/6/2015			7.5	0.010										

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HAB form	Shore HAB
95	L Warn	6/30/1991	epi	27	27															
95	L Warn	7/14/1991	epi	25	23															
95	L Warn	7/28/1991	epi	22	25															
95	L Warn	8/11/1991	epi	21	23															
95	L Warn	8/25/1991	epi	20	24															
95	L Warn	9/8/1991	epi	23	23															
95	L Warn	9/14/1991	epi	22	22															
95	L Warn	10/6/1991	epi	13	19															
95	L Warn	6/7/1992	epi	30	22	3	4	4	24											
95	L Warn	6/21/1992	epi	16	22															
95	L Warn	7/5/1992	epi	20	22	3	4	4	25											
95	L Warn	7/19/1992	epi	30	24	2	4	4	24											
95	L Warn	8/2/1992	epi	25	22	3	4	4	24											
95	L Warn	8/16/1992	epi	18	22	3	4	4	145											
95	L Warn	8/30/1992	epi	23	22	3	4	4	245											
95	L Warn	9/13/1992	epi	20	21	3	4	4	2											
95	L Warn	6/13/1993	epi	22	20	2	4	4	2											

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HABform	ShoreHAB
95	L Warn	6/27/1993	epi	21	24	3	4	4	2											
95	L Warn	7/11/1993	epi	26	28	3	4	4	2											
95	L Warn	7/25/1993	epi	24	24	3	4	4	2											
95	L Warn	8/8/1993	epi	24	24	3	3	4	2											
95	L Warn	8/22/1993	epi	19	23	3	3	3	2											
95	L Warn	9/5/1993	epi	21	24	3	3	3	2											
95	L Warn	9/19/1993	epi	15	20	3	3	3	2											
95	L Warn	6/5/1994	epi	24	20	2	3	3	2											
95	L Warn	6/19/1994	epi	26	28	3	3	3	2											
95	L Warn	7/3/1994	epi	26	24	3	3	3	2											
95	L Warn	7/17/1994	epi	25	26	3	3	3	2											
95	L Warn	7/30/1994	epi	27	25	3	2	3	2											
95	L Warn	8/13/1994	epi	26	27	3	3	3	2											
95	L Warn	8/28/1994	epi	22	21	3	3	3	2											
95	L Warn	9/11/1994	epi	14	16	3	3	3	25											
95	L Warn	6/18/1995	epi	27	22	3	4	4	2											
95	L Warn	7/2/1995	epi	20	24	3	4	4	24											
95	L Warn	7/16/1995	epi	27	26	2	4	4	24											
95	L Warn	7/29/1995	epi	27	25	2	4	4	2											
95	L Warn	8/13/1995	epi	23	24	2	4	4	26											
95	L Warn	8/27/1995	epi	25	22	2	4	4	26											
95	L Warn	9/10/1995	epi	13	18	2	4	4	26											
95	L Warn	9/24/1995	epi	15	15	3	2	3	26											
95	L Warn	7/8/2001	epi	20	22	2	3	2	3											
95	L Warn	7/22/2001	epi	20	24	2	3	2												
95	L Warn	8/5/2001	epi	24	24	3	3	3	3											
95	L Warn	8/19/2001	epi	23	25	2	3	3	3											
95	L Warn	9/3/2001	epi	22	21	3	3	3	3											
95	L Warn	9/15/2001	epi	16	20	4	3	3	13											
95	L Warn	6/23/2002	epi	28	24	3	3	3	13											
95	L Warn	7/7/2002	epi	20	20	3	3	3	13											
95	L Warn	7/21/2002	epi	20	25	2	3	3	3											
95	L Warn	8/4/2002	epi	25	26	3	3	3	3											
95	L Warn	8/17/2002	epi	24	26	2	3	3	3											
95	L Warn	9/1/2002	epi	15	21	2	3	3	3											
95	L Warn	9/21/2002	epi	26	21	3	3	3	3											
95	L Warn	10/6/2002	epi	14	17	3	3	3	13											
95	L Warn	6/8/2003	epi	22	18	3	3	2	3											
95	L Warn	6/22/2003	epi	18	19															
95	L Warn	7/7/2003	epi	27	25	3	3	3	3											
95	L Warn	7/20/2003	epi	23	23	2	3	2	3											
95	L Warn	8/3/2003	epi	24	24	2	3	3	3											
95	L Warn	8/17/2003	epi	21	25	2	3	3	3											
95	L Warn	8/31/2003	epi	15	22	2	3	2	3											
95	L Warn	9/21/2003	epi	17	20	3	3	2												
95	L Warn	6/20/2004	epi	19	21	2	3	2	3											
95	L Warn	7/4/2004	epi	22	22	3	3	2	3											
95	L Warn	7/17/2004	epi	24	23	2	3	3	3											
95	L Warn	8/1/2004	epi	24	23	2	3	2	5											
95	L Warn	8/14/2004	epi	24	23	2	3	2	5											
95	L Warn	8/29/2004	epi	26	22	3	3	2	0											
95	L Warn	9/12/2004	epi	17	21	3	3	3	1											
95	L Warn	9/26/2004	epi	19	19	3	3	2	0											
95	L Warn	7/10/2005	epi	28	23	2	3	2	3											
95	L Warn	7/21/2005	epi	23	25	2	3	2	0											
95	L Warn	8/7/2005	epi	23	25	2	3	2	3											
95	L Warn	8/21/2005	epi	25	24	2	3	2	3											
95	L Warn	9/4/2005	epi	17	22	3	3	3	3											
95	L Warn	9/26/2005	epi	20	22	2	3	3	3											

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HAB form	Shore HAB
95	L Warn	10/2/2005	epi	18	17	3	3	3	13											
95	L Warn	10/21/05	epi	15	13	3	3	3	3											
95	L Warn	6/4/2006	epi	18	19	3	3	2	5											
95	L Warn	6/18/2006	epi	25	21	3	3	2	0											
95	L Warn	7/9/2006	epi	23	23	2	3	2	58											
95	L Warn	7/23/2006	epi	22	23	3	3	2	5											
95	L Warn	7/30/2006	epi	24	25	3	3	2	0											
95	L Warn	8/28/2006	epi	27	22	2	3	2	0											
95	L Warn	9/4/2006	epi	18	19	2	3	2	5											
95	L Warn	7/2/2007	epi	25	21	2	3	3	6											
95	L Warn	7/13/2007	epi	24	25	2	3	3	3											
95	L Warn	7/29/2007	epi	23	24	2	3	2	0											
95	L Warn	8/12/2007	epi	22	24	2	3	2	0											
95	L Warn	8/26/2007	epi	21	23	3	3	2	0											
95	L Warn	9/16/2007	epi	13	19	3	3	3	1											
95	L Warn	9/22/2007	epi	19	19	2	3	2	0											
95	L Warn	10/7/2007	epi	22	20	3	3	2	0											
95	L Warn	6/2/2008	epi	26	18	2	3	2	3											
95	L Warn	6/15/2008	epi	24	25	2	3	3	3											
95	L Warn	6/29/2008	epi	23	24	2	3	2	0											
95	L Warn	7/12/2008	epi	24	24	3	3	2	0											
95	L Warn	7/27/2008	epi	24	25	2	3	2	5											
95	L Warn	8/9/2008	epi	18	23	2	3	2	3											
95	L Warn	8/24/2008	epi	22	23	2	3	2	0											
95	L Warn	9/7/2008	epi	19	24															
95	L Warn	06/23/2009	epi	20	21	2	3	2	0											
95	L Warn	07/06/2009	epi	24	22	2	3	2	5											
95	L Warn	07/20/2009	epi	20	23	2	3	2	0											
95	L Warn	08/02/2009	epi	21	24	3	3	2	0											
95	L Warn	08/16/2009	epi	23	25	2	3	2	0											
95	L Warn	08/30/2009	epi	22	22	2	3	2	0											
95	L Warn	09/14/2009	epi	16	19	2	3	2	0			71.41								
95	L Warn	09/26/2009	epi	14	18	3	3	2	13			90.26								
95	L Warn	5/16/2010	epi	15	15	3	2	3	13	0	0									
95	L Warn	5/29/2010	epi	20	24	2	3	3	3	0	0									
95	L Warn	6/14/2010	epi	21	22	2	3	2	0	0	0									
95	L Warn	6/28/2010	epi	25	24	2	3	3	36	0	0									
95	L Warn	7/11/2010	epi	23	26	2	3	2	0	0	0									
95	L Warn	7/26/2010	epi	22	25	2	3	3	3	0	0									
95	L Warn	8/8/2010	epi	22	24	2	3	2	0	0	0	93.94								
95	L Warn	8/27/2010	epi	18	21	2	3	2	0	0	0									
95	L Warn	6/2/2012	epi	20	20	1	3	1	0	0	0	1.30	0.40	<0.30	<0.417		1.25	0.26	I	
95	L Warn	6/17/2012	epi	21	22	2	3	2	0	0	0	1.20	0.40	<0.30	<0.413		0.30	0.00	I	
95	L Warn	7/1/2012	epi	27	24	2	3	3	3	7		4.00	0.30	<0.30	<0.392		1.75	1.32	I	
95	L Warn	7/15/2012	epi	25	26	2	3	2	0	0	0	2.80	0.70	<0.30	<0.423		3.00	0.74	I	
95	L Warn	7/29/2012	epi	22	25	2	3	2	0	0	0	3.00	0.40	<0.30	<0.292		1.84	0.83	I	
95	L Warn	8/12/2012	epi	21	25	2	3	2	3	0	0	2.90	0.50	<0.30	<0.552		2.46	1.34	I	
95	L Warn	8/26/2012	epi	23	23	3	3	2	0	0	0	6.10	1.20	0.57	<0.725		5.11	0.62	I	
95	L Warn	9/9/2012	epi	20	23	3	3	3	1	0	0	5.90	2.70	0.37	<0.725		10.03	0.11	F	
95	L Warn	6/1/2013	epi	27	19	2	3	2	0	0	0	5.20	1.20	<0.30	<0.380		1.40	0.40	F	
95	L Warn	6/16/2013	epi	16	20	3	2	3	3	0	0	8.50	1.80	<0.30	<0.630		2.70	0.50	F	I
95	L Warn	6/30/2013	epi	24	24	3	3	2	1	0	0	6.40	2.60	<0.30	<0.440		2.70	0.40	F	F
95	L Warn	7/14/2013	epi	27	25	2	3	2	0	0	0	2.70	2.50	<0.30	<0.370		2.30	0.00	I	I
95	L Warn	7/27/2013	epi	19	24	2	3	2	0	0	0	4.60	1.70	<0.30	<0.380		2.90	0.30	I	I
95	L Warn	8/11/2013	epi	22	22	3	3	2	1	0	0	2.40	1.00	<0.30	<0.390		3.30	0.00	I	I
95	L Warn	8/25/2013	epi	17	22	2	3	2	0	0	0	7.20	1.30	<0.30	<0.650		2.10	1.20	I	I
95	L Warn	9/9/2013	epi	16	20	3	3	2	1	0	0	5.20	1.20	<0.30	<0.380		1.40	0.40	I	I
95	L Warn	6/1/2014	epi	19	20	1	3	1	0	0	0	0.20	1.20	<0.53	<0.40	<0.001	0.83	0.00	I	I
95	L Warn	6/14/2014	epi	10	20	2	3	2	0	0	0	0.05	0.60	<0.53	<0.08	<0.002	2.27	0.00	I	

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HABform	ShoreHAB
95	L Warn	6/29/2014	epi	24	24	2	3	2	6	0	0	1.70	0.40	<1.60	<0.48	<0.002	0.62	0.00	I	
95	L Warn	7/13/2014	epi	23	25	3	3	3	36	0	0	2.20	0.30	<0.40	<0.21	<0.003	1.18	0.00	I	
95	L Warn	7/26/2014	epi	18	24	3	3	3	3	0	0			<0.31	<0.03	<0.001			I	I
95	L Warn	8/9/2014	epi	17	24	2	3	2	0	0	0	4.40	0.30	<0.26	<0.10	<0.002	0.74	0.00	I	I
95	L Warn	8/24/2014	epi	17	21	2	3	2	3	0	0	7.20	0.40	<0.26	<0.10	<0.002	1.58	0.00	I	I
95	L Warn	9/7/2014	epi	19	22	2	3	2	3	0	0	3.80	0.20	<0.64	<0.03	<0.001	1.38	0.03	I	I
95	L Warn	5/30/2015	epi	22	22	2	3	3	3	0	0	4.00	0.70	<0.45	<0.089	<0.199	1.10	0.00	I	I
95	L Warn	6/14/2015	epi	21	23	2	3	2	0	0	0	3.50	0.40	<0.55	<0.027	<0.318	0.80	0.00	I	I
95	L Warn	6/26/2015	epi	23	22	2	3	2	0	0	0	2.10	0.70	<1.01	<0.007	<0.040	1.70	0.00	I	I
95	L Warn	7/12/2015	epi	20	24	2	3	3	3	0	0	3.30	0.50	<0.26	<0.005	<0.028	1.10	0.00	I	I
95	L Warn	7/26/2015	epi	24	22	3	3	3	6	0	0	3.40	0.50	<0.19	<0.005	<0.020	1.10	0.00	I	I
95	L Warn	8/8/2015	epi	19	24	2	3	2	6	0	0	5.20	0.60	<0.44	<0.002	<0.014	1.50	0.30	I	I
95	L Warn	8/23/2015	epi	20	24	2	3	2	0	0	0	4.00	0.50	<0.28	<0.008	<0.021	1.30	0.00	I	I
95	L Warn	9/6/2015	epi	24	24	2	3	2	6	0	0			<0.26	0.03	<0.086	1.40	0.20	I	I
95	L Warn	7/7/2002	hypo	20	20	3	2	3	13	0	0									
95	L Warn	7/21/2002	hypo	20	12	2	3	3	3	0	0									
95	L Warn	8/4/2002	hypo	25	12															
95	L Warn	8/17/2002	hypo	24	15															
95	L Warn	9/1/2002	hypo	15	14															
95	L Warn	9/21/2002	hypo	26	15															
95	L Warn	10/6/2002	hypo	14	17															
95	L Warn	6/20/2004	hypo		11															
95	L Warn	7/4/2004	hypo		12															
95	L Warn	7/17/2004	hypo		11															
95	L Warn	8/1/2004	hypo		13															
95	L Warn	8/14/2004	hypo		15															
95	L Warn	8/29/2004	hypo		15															
95	L Warn	9/12/2004	hypo		15															
95	L Warn	9/26/2004	hypo		15															
95	L Warn	8/7/2005	hypo		16															
95	L Warn	8/21/2005	hypo		17															
95	L Warn	9/4/2005	hypo		18															
95	L Warn	9/26/2005	hypo		19															
95	L Warn	10/2/2005	hypo		17															
95	L Warn	10/21/05	hypo		13															
95	L Warn	6/4/2006	hypo		11															
95	L Warn	6/18/2006	hypo		10															
95	L Warn	7/9/2006	hypo		11															
95	L Warn	7/23/2006	hypo		12															
95	L Warn	7/30/2006	hypo		13															
95	L Warn	8/28/2006	hypo		14															
95	L Warn	9/4/2006	hypo		15															
95	L Warn	7/2/2007	hypo		11															
95	L Warn	7/13/2007	hypo		11															
95	L Warn	7/29/2007	hypo		12															
95	L Warn	8/12/2007	hypo		14															
95	L Warn	8/26/2007	hypo		15															
95	L Warn	9/16/2007	hypo		15															
95	L Warn	9/22/2007	hypo		15															
95	L Warn	10/7/2007	hypo		15															
95	L Warn	6/2/2008	hypo		10															
95	L Warn	6/15/2008	hypo		12															
95	L Warn	6/29/2008	hypo		12															
95	L Warn	7/12/2008	hypo		13															
95	L Warn	7/27/2008	hypo		15															
95	L Warn	8/9/2008	hypo		15															
95	L Warn	8/24/2008	hypo		18															
95	L Warn	9/7/2008	hypo		17															
95	L Warn	06/23/2009	hypo		12															

LNum	PName	Date	Site	TAir	TH20	QA	QB	QC	QD	QF	QG	AQ-PC	AQ-Chla	MC-LR	Ana-a	Cyl	FP-Chl	FP-BG	HABform	ShoreHAB
95	L Warn	07/06/2009	hypo		14															
95	L Warn	07/20/2009	hypo		16															
95	L Warn	08/02/2009	hypo		17															
95	L Warn	08/16/2009	hypo		16															
95	L Warn	08/30/2009	hypo		17															
95	L Warn	09/14/2009	hypo		17															
95	L Warn	09/26/2009	hypo		15															
95	L Warn	5/16/2010	hypo		10															
95	L Warn	5/29/2010	hypo		11															
95	L Warn	6/14/2010	hypo		13															
95	L Warn	6/28/2010	hypo		14															
95	L Warn	7/11/2010	hypo		15															
95	L Warn	7/26/2010	hypo		16															
95	L Warn	8/8/2010	hypo		17															
95	L Warn	8/27/2010	hypo		20															
95	L Warn	6/1/2013	hypo		11															
95	L Warn	6/16/2013	hypo		12															
95	L Warn	6/30/2013	hypo		14															
95	L Warn	7/14/2013	hypo		14															
95	L Warn	7/27/2013	hypo		14															
95	L Warn	8/11/2013	hypo		15															
95	L Warn	8/25/2013	hypo		15															
95	L Warn	9/9/2013	hypo		17															
95	L Warn	6/1/2014	hypo		10															
95	L Warn	6/14/2014	hypo		10															
95	L Warn	6/29/2014	hypo		11															
95	L Warn	7/13/2014	hypo		13															
95	L Warn	7/26/2014	hypo		13															
95	L Warn	8/9/2014	hypo		17															
95	L Warn	8/24/2014	hypo		17															
95	L Warn	9/7/2014	hypo		16															
95	L Warn	5/30/2015	hypo		9															
95	L Warn	6/14/2015	hypo		10															
95	L Warn	6/26/2015	hypo		11															
95	L Warn	7/12/2015	hypo		12															
95	L Warn	7/26/2015	hypo		12															
95	L Warn	8/8/2015	hypo		13															
95	L Warn	8/23/2015	hypo		14															
95	L Warn	9/6/2015	hypo		4															

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 Lake Warn

Lake Warn (0602-0116) MinorImpacts

Waterbody Location Information

Revised: 07/06/2009

Water Index No: SR- 44-P94
Hydro Unit Code: 02050102/050 **Str Class:** C
Waterbody Type: Lake (Unknown Trophic)
Waterbody Size: 30.4 Acres
Seg Description: entire lake

Drain Basin: Susquehanna River
Chenango River
Reg/County: 7/Chenango Co. (9)
Quad Map: BRISBEN (L-18-4)

Water Quality Problem/Issue Information

(CAPS indicate MAJOR Use Impacts/Pollutants/Sources)

Use(s) Impacted	Severity	Problem Documentation
Recreation	Stressed	Suspected

Type of Pollutant(s)
Known: ALGAL/WEED GROWTH (excessive weed growth)
Suspected: - - -
Possible: - - -

Source(s) of Pollutant(s)
Known: - - -
Suspected: HABITAT MODIFICATION
Possible: - - -

Resolution/Management Information

Issue Resolvability: 1 (Needs Verification/Study (see STATUS))
Verification Status: 3 (Cause Identified, Source Unknown)
Lead Agency/Office: ext/WQCC **Resolution Potential:** Medium
TMDL/303d Status: 4c->n/a

Further Details

Overview
Recreational uses (swimming, fishing, boating) in Warn Lake are thought to experience minor impacts due to algal and aquatic weed growth in the lake.

Water Quality Sampling
Lake Warn has been sampled as part of the NYSDEC Citizen Statewide Lake Assessment Program (CSLAP) beginning in 1991 through 1995 and from 2001 through 2006. 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 mesotrophic, or moderately productive. In recent years productivity in the lake has increased, but this is thought to be a result of weather patterns. Phosphorus levels in the lake are typically below the state guidance values indicating impacted/stressed recreational uses. Corresponding transparency measurements regularly exceed the recommended minimum for swimming beaches. Measurements of pH typically fall within the state water quality range of 6.5 to 8.5. The lake water is moderately colored, but color does not limit water transparency. (DEC/DOW, BWAM/CSLAP, October 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. The recreational suitability of the lake is described most frequently as "excellent" to "slightly" impacted. The lake itself is most often described as "not quite crystal clear" or having "definite algal greenness," an assessment that is consistent measured water quality characteristics. Assessments have noted that aquatic plants typically grow to the lake surface but not densely. Aquatic plants are dominated by a mix of native and non-native species. Historically dense weed growth was probably due to the Eurasian watermilfoil, and it is likely that recent (since the mid-1990s) reductions in aquatic plant coverage may be due to grass carp stocking that occurred at that time, or due to lily control with herbicides more recently. Although surface weed coverage is still noted, "excessive weed growth" has not been identified as impacting recreational uses in recent years. have not been cited as impacting recreational uses. (DEC/DOW, BWAM/CSLAP, October 2007)

Lake Uses

This lake waterbody is designated class C, suitable for use as a general recreation and aquatic life support, but not for drinking water supply or public bathing beach. 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.

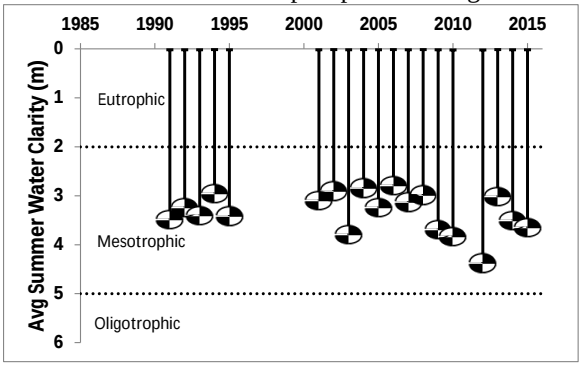
Segment Description

This segment includes the total area of the entire lake.

Appendix C- Long Term Trends: Lake Warn

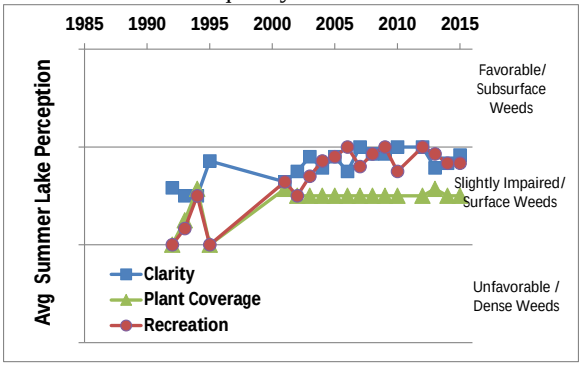
Long Term Trends: Water Clarity

- No trends apparent; slightly ↑ last few yrs
- Most readings typical of *mesotrophic* lakes and consistent w/ phosphorus & algae levels



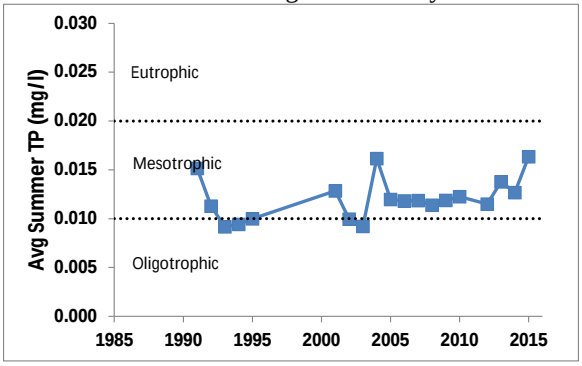
Long Term Trends: Lake Perception

- Indicators improved but stable since '03
- Recreational perception linked to changes in both water quality and weeds



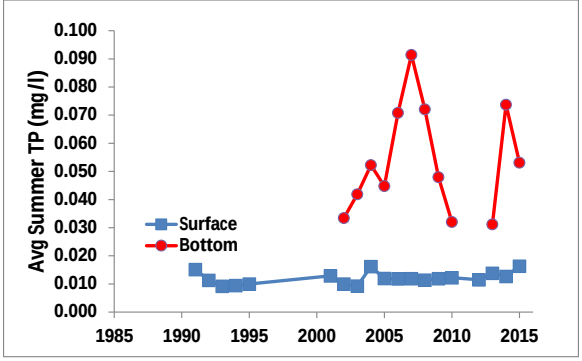
Long Term Trends: Phosphorus

- No clear rends apparent; ↑ since early 2000s
- Most readings typical of *mesotrophic* lakes, consistent with algae and clarity



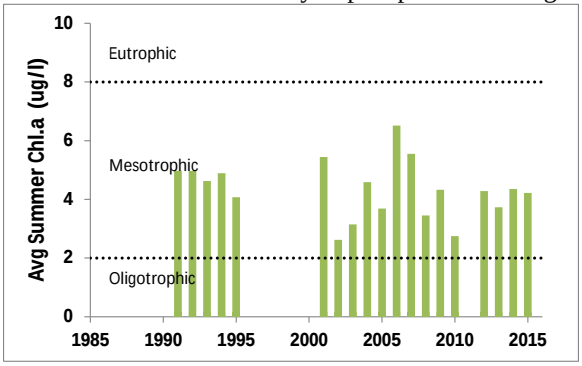
Long Term Trends: Bottom Phosphorus

- Deep TP slightly elevated but variable
- Bottom TP may migrate to lake surface during the summer



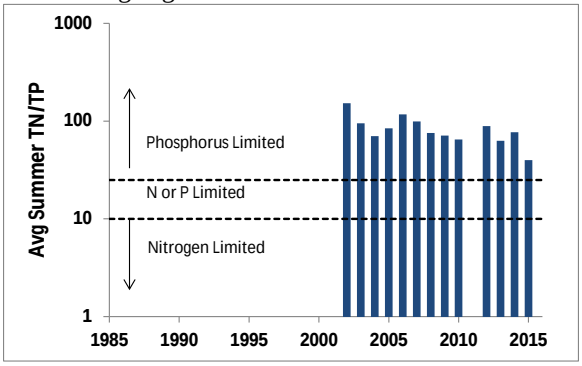
Long Term Trends: Chlorophyll a

- Slight ↓ since early 90s
- Most readings typical of *mesotrophic* lakes, consistent w/ clarity & phosphorus readings



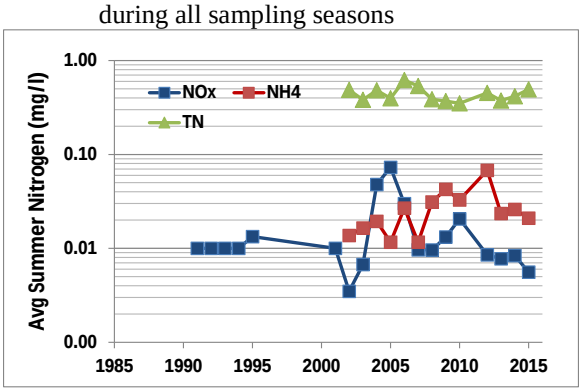
Long Term Trends: N:P Ratio

- No trends apparent; slight ↓ since early 00s
- Most readings indicate phosphorus limits algae growth



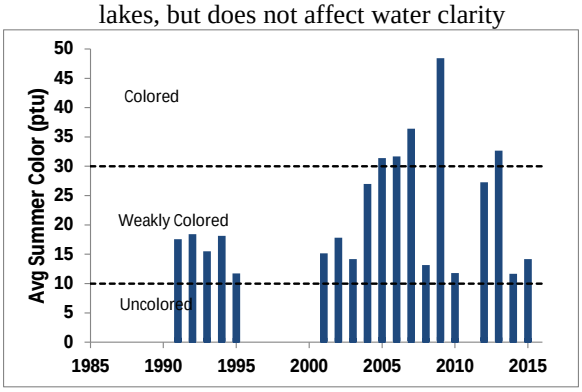
Long Term Trends: Nitrogen

- Ammonia levels increasing but still low
- Low NOx, ammonia and total nitrogen during all sampling seasons



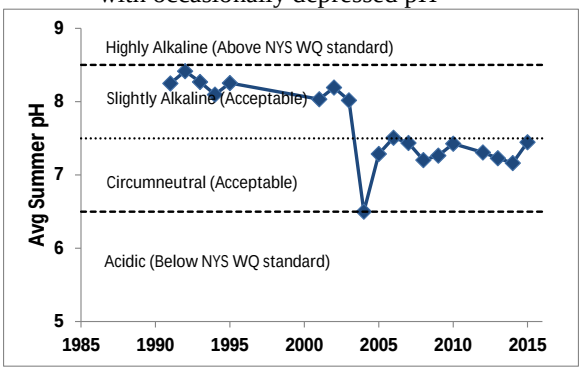
Long Term Trends: Color

- Higher after lab change in 2002; no trend
- Most readings still typical of *weakly colored* lakes, but does not affect water clarity



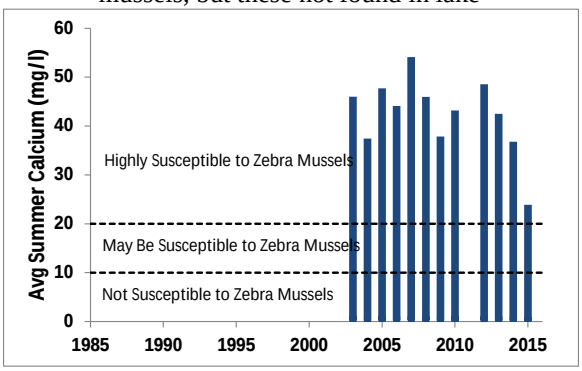
Long Term Trends: pH

- Significantly decreasing pH since early 90s
- Most readings typical of *circumneutral* lakes, with occasionally depressed pH



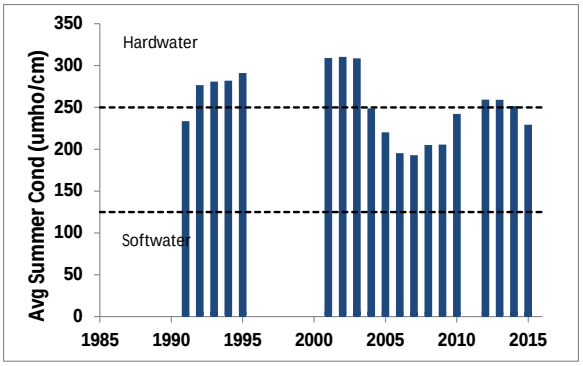
Long Term Trends: Calcium

- No trends apparent; slight ↓ last 4 years
- Data indicates high susceptibility to zebra mussels, but these not found in lake



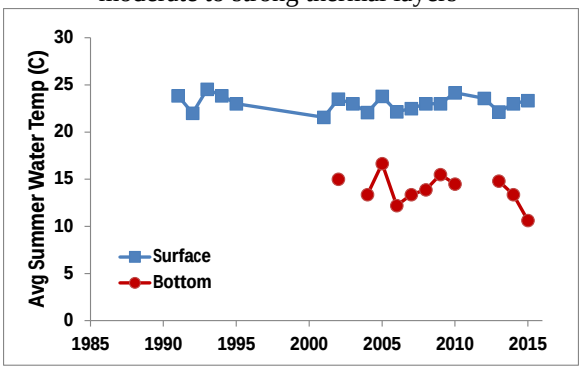
Long Term Trends: Conductivity

- Highly variable levels; recently lower
- Most readings typical of lakes with *hardwater* to intermediate hardness



Long Term Trends: Water Temperature

- No trends surface T; slight drop bottom T
- Lower deepwater temperatures indicate moderate to strong thermal layers



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.

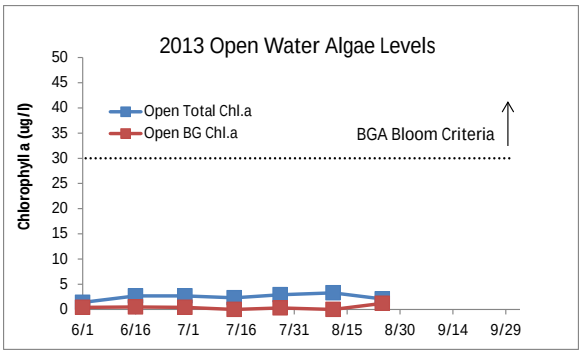


Figure D1:
2013 Open Water Total and BGA Chl.a

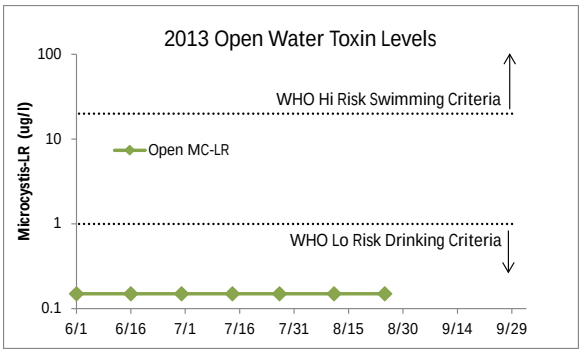


Figure D2:
2013 Open Water Microcystin-LR

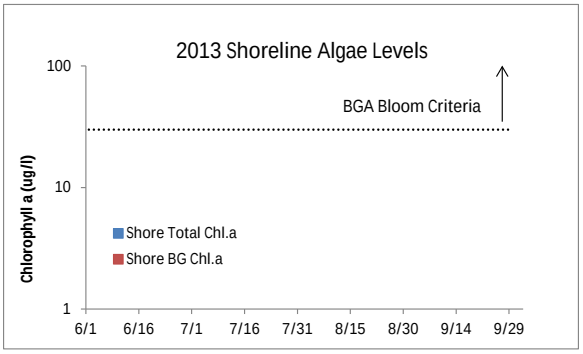


Figure D3:
2013 Shoreline Total and BGA Chl.a

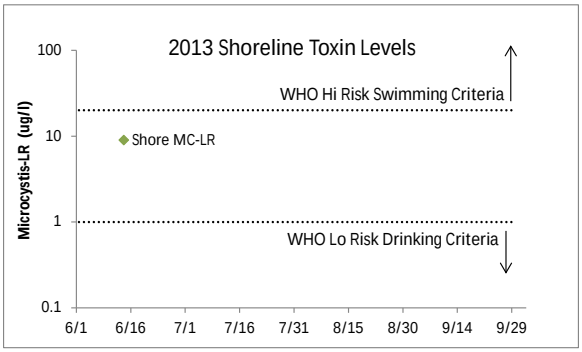


Figure D4:
2013 Shoreline Microcystin-LR

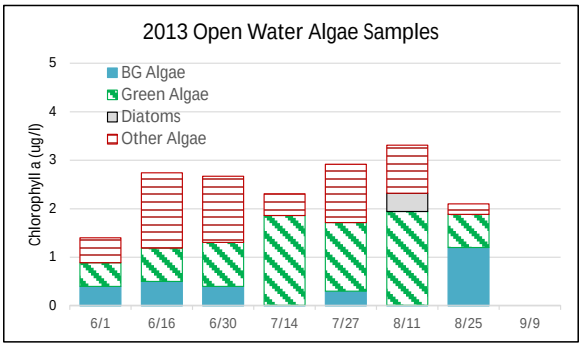


Figure D5:
2013 Open Water Algae Types

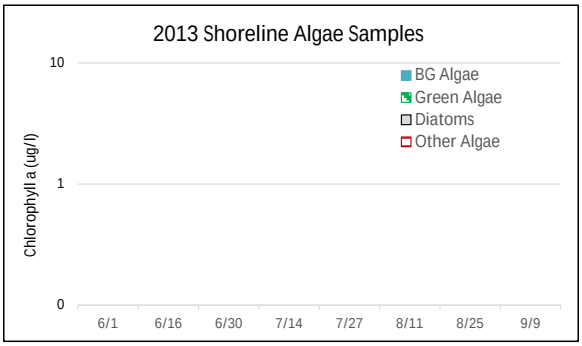


Figure D6:
2013 Shoreline Algae Types

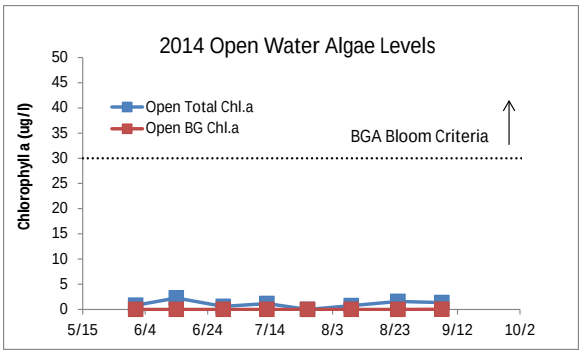


Figure D7:
2014 Open Water Total and BGA Chl.a

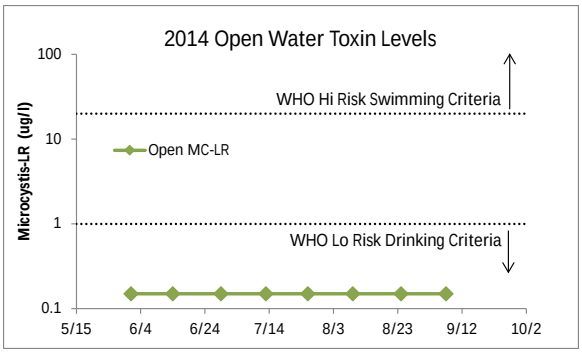


Figure D8:
2014 Open Water Microcystin-LR

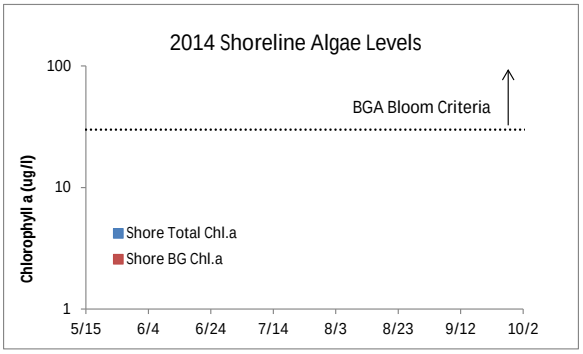


Figure D9:
2014 Shoreline Total and BGA Chl.a

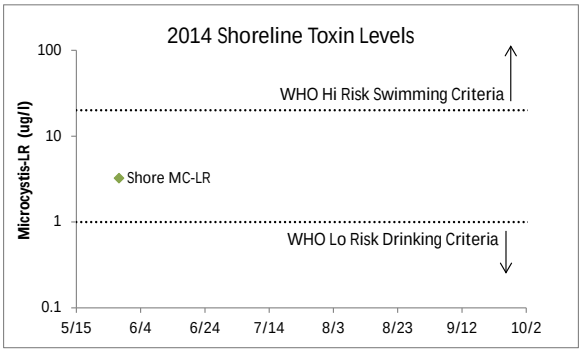


Figure D10:
2014 Shoreline Microcystin-LR

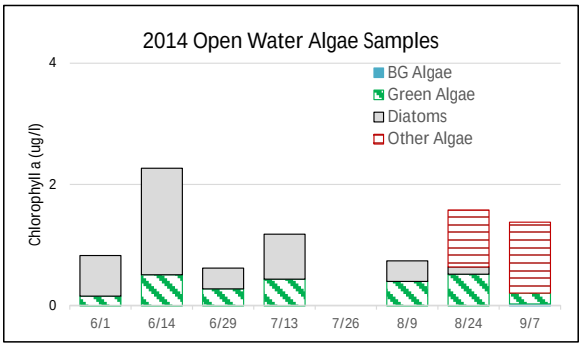


Figure D11:
2014 Open Water Algae Types

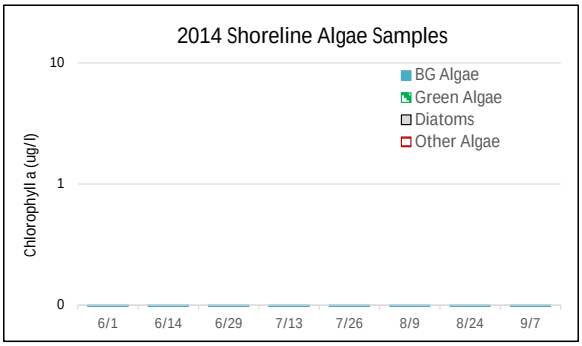


Figure D12:
2014 Shoreline Algae Types

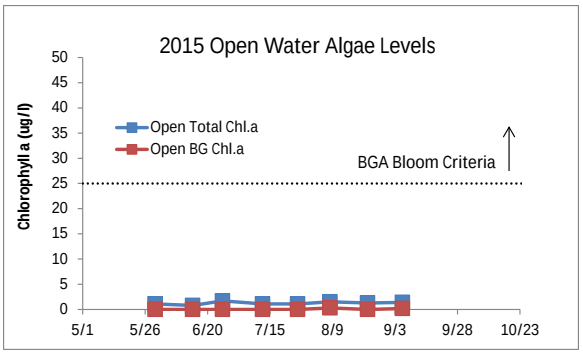


Figure D13:
2015 Open Water Total and BGA Chl.a

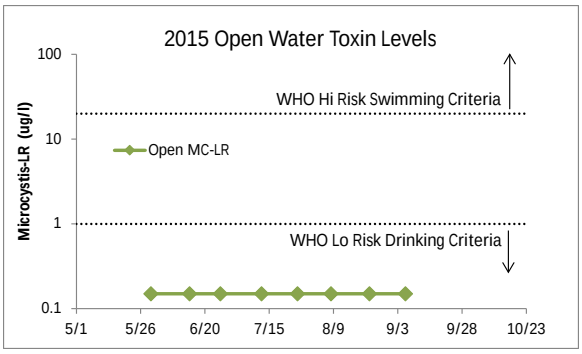


Figure D14:
2015 Open Water Microcystin-LR

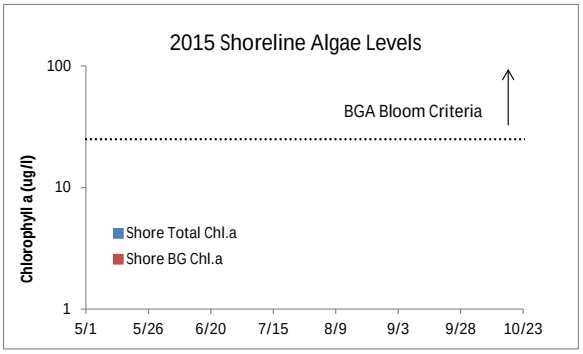


Figure D15:
2015 Shoreline Total and BGA Chl.a

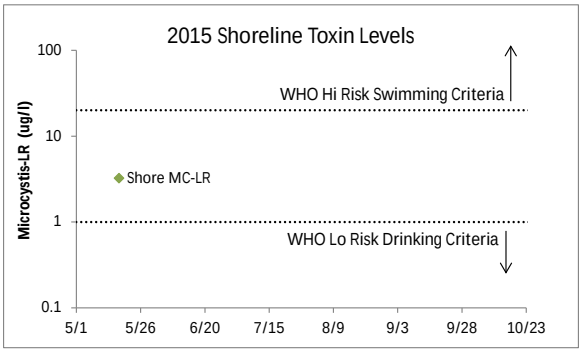


Figure D16:
2015 Shoreline Microcystin-LR

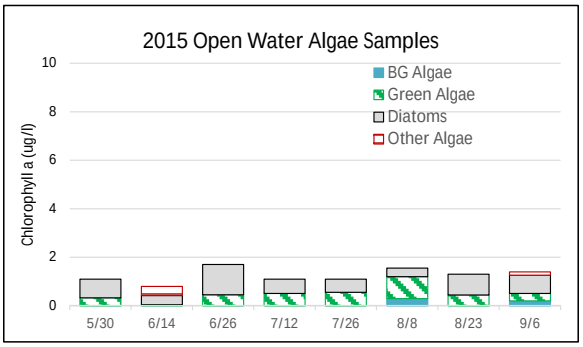


Figure D17:
2015 Open Water Algae Types

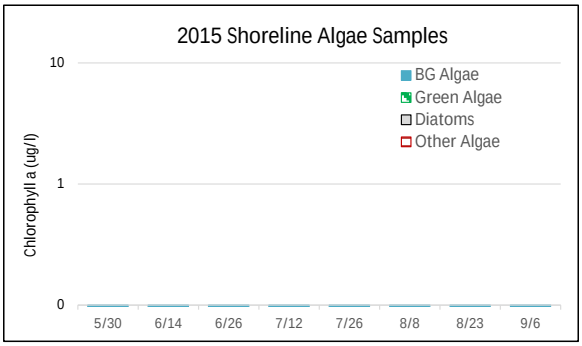


Figure D18:
2015 Shoreline Algae Types

Appendix E:
AIS Species in Chenango County

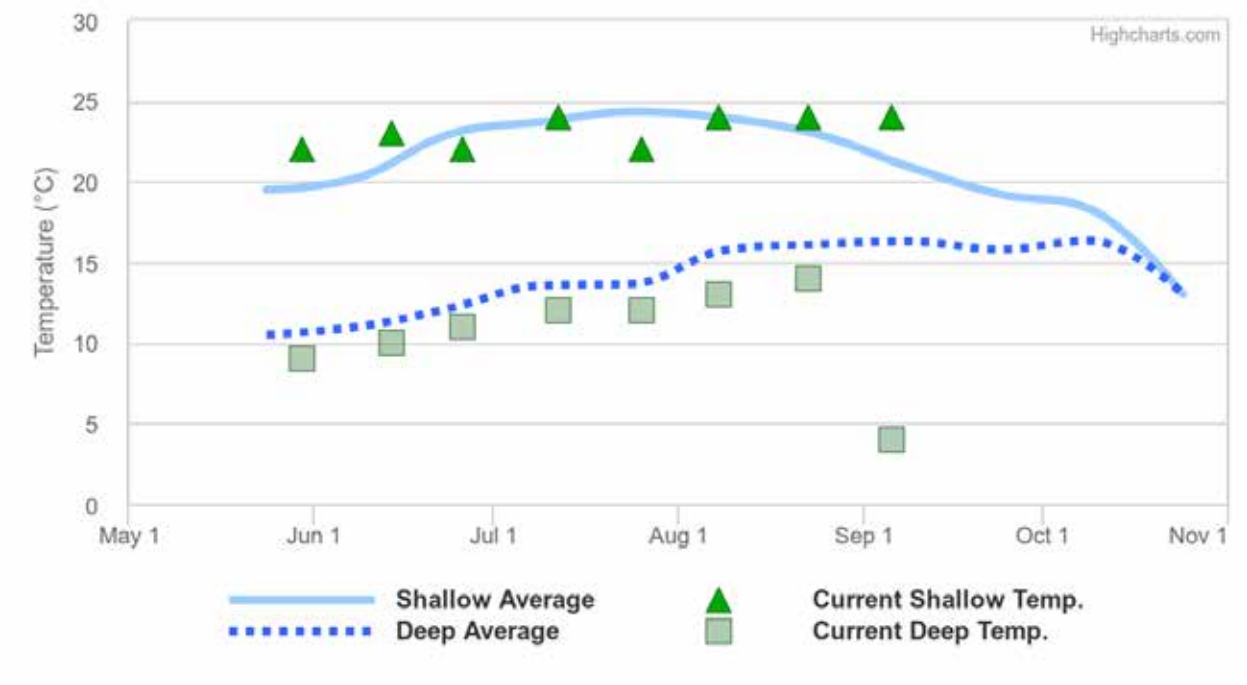
The table below shows the invasive aquatic plants and animals that have been documented in Chenango County, as cited in either the iMapInvasives database (http://www.imapinvasives.org/) or in the NYSDEC Division of Water database. These databases may include some, but not all, non-native plants or animals 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 - Chenango County			
Waterbody	**Kingdom**	**Common name**	**Scientific name**
Balsam Pond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Bowman Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Chenango Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Chenango River near Greene	Animal	Asian clam	*Corbicula fluminea*
Chenango River near Oxford	Animal	Asian clam	*Corbicula fluminea*
Guilford Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Hunt Pond	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Jackson Pond	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Long Pond	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Mill Brook Reservoir	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Mud Creek e of Cortland	Animal	Asian clam	*Corbicula fluminea*
Otselic River near Pitcher	Animal	Asian clam	*Corbicula fluminea*
Plymouth Reservoir	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Warn Lake	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Warn Lake	Plant	Curly leafed pondweed	*Potamogeton crispus*

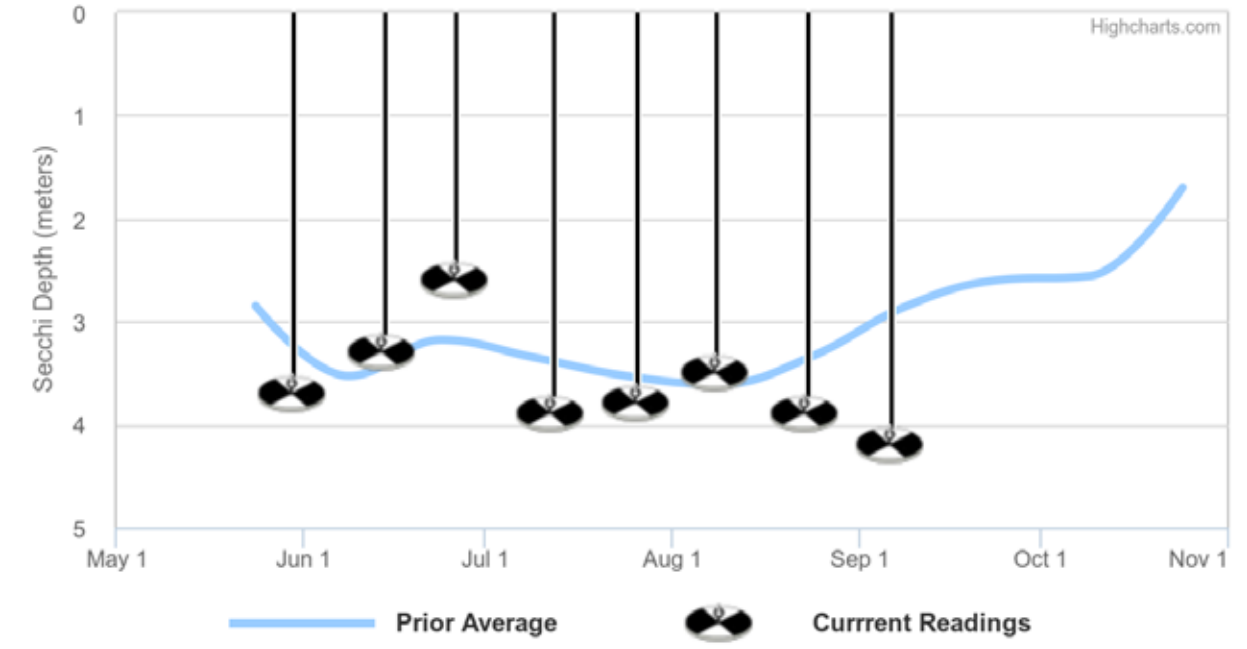
Appendix F: Current Year vs. Prior Averages for Lake Warn

Current Year Water Temperatures vs. Prior Average



This year's shallow water sample temperatures are tending to be higher 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 lower than normal when compared to the average of readings collected from 2002 to 2014.

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 1991 to 2014

Appendix G: Watershed and Land Use Map for Lake Warn

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.