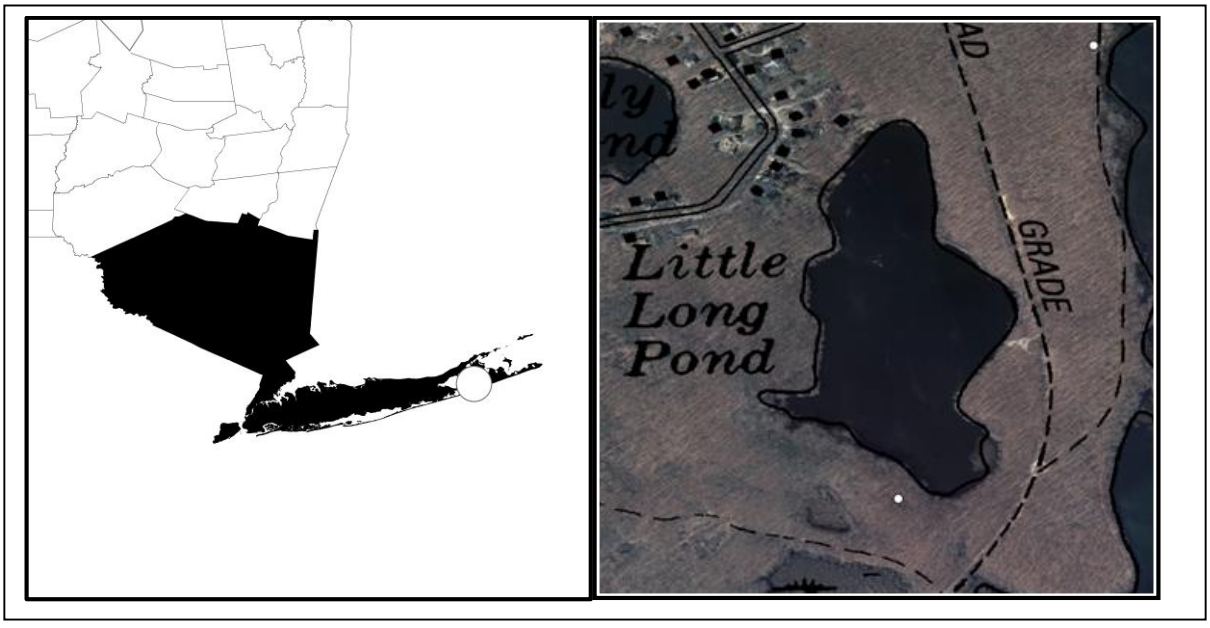
CSLAP 2015 Lake Water Quality Summary:
Little Long Pond

General Lake Information

Location	Town of Southampton
County	Suffolk
Basin	Long Island Sound/Atlantic City
Size	5.2 hectares (12.8 acres)
Lake Origins	Natural
Watershed Area	97.5 hectares (240.8 acres)
Retention Time	0.5 years
Mean Depth	2.9 meters
Sounding Depth	6.1 meters
Public Access?	no
Major Tributaries	no named tribs
Lake Tributary To…	no named outlet
WQ Classification	C (non-contact recreation = boating, angling)
Lake Outlet Latitude	40.975
Lake Outlet Longitude	-72.296
Sampling Years	2007-2009, 2011-2015
2015 Samplers	Dai Dayton, Jean Dodds, Doreen Johnston, and Tom Hensler
Main Contact	Dai Dayton

Lake Map

(sampling location marked with a circle)



Background

Little Long Pond is a 13 acre, class C lake found in the Town of Southampton in Suffolk County, in the Long Island region of New York State. It was first sampled as part of CSLAP in 2008.

It is one of six CSLAP lakes among the nearly 750 lakes and ponds found in Suffolk County, and one of seven CSLAP lakes among the more than 1150 lakes and ponds in the Long Island Sound / Atlantic Ocean drainage basin.

Lake Uses

Little Long Pond is a Class C lake; this means that the best intended use for the lake is for non-contact recreation—boating and aesthetics, although the lake may also support contact recreation—swimming and bathing. The lake is not used for swimming or other recreational uses, and there is no public access to the lake.

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

General statewide fishing regulations are applicable in Little Long Pond. In addition, there is a year-round open season on bluegill, crappie, pumpkinseed sunfish, trout and yellow perch. There is a size limit of 9", and a daily take limit of 15 for all of these fish except trout, which has a daily take limit of 3. Ice fishing of trout is permitted.

There are no lake-specific fish consumption advisories on Little Long Pond.

Historical Water Quality Data

CSLAP sampling was conducted on Little Long Pond from 2006-2009 and 2011 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 Little Long Pond can also be found on the NYSDEC web page at http://www.dec.ny.gov/lands/77836.html.

Little Long Pond has not been sampled through any previous NYSDEC monitoring program. It is not known if the lake has been sampled by any organizations associated with the Long Island Greenbelt.

There are no NYSDEC RIBS monitoring sites near Little Long Pond, and there are no named tributaries to the lake.

Lake Association and Management History

Little Long Pond is part of the Long Pond Greenbelt complex, along with (among other CSLAP lakes) Black Pond and Lily Pond. The Long Pond Greenbelt is an approximately 11-kilometer (7-mile) north-south corridor of ponds, streams, and adjacent upland areas in the Outer Coastal Plain physiographic province. The preservation of land in the Long Pond Greenbelt has been a goal in the master plan for the town of Southampton since 1970. Long Pond Greenbelt is recognized by the New York State Department of State as a Significant Coastal Fish and Wildlife Habitat, and by the U.S. Fish and Wildlife Service as a priority wetland complex under the federal Emergency Wetlands Resources Act of 1986. The New York State Natural Heritage Program, in conjunction with The Nature Conservancy, recognizes several Priority Sites for

Biodiversity within the Long Pond Greenbelt complex. Other excellent examples of coastal plain pond shore communities occur at Black Pond and Lily Pond.

Information about the Long Pond Greenbelt can be found at http://library.fws.gov/pubs5/web_link/text/lpg_form.htm.

Summary of 2015 CSLAP Sampling Results

Evaluation of 2015 Annual Results Relative to 2006-2014

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 –Little Long Pond" section in Appendix C.

Evaluation of Eutrophication Indicators

Water clarity was higher than usual in 2015, and these readings have been higher over the last five years. This is coincident with lower phosphorus readings over the same period. Algae levels have also decreased over the last three years, although these readings were close to usual in 2015.

Water clarity increases slightly in late summer into the fall in most years, but so does phosphorus levels, and algae levels vary little during the summer. In 2015, water clarity decreased in mid-summer, coincident with an increase in phosphorus readings, and higher clarity readings were apparent in the fall. Algae levels are usually unexpectedly low, suggesting that either phosphorus is not limiting algae growth or other forms of algae (floating on the surface, carpeting the bottom or sticking to plants, etc.) are growing in the lake.

The lake can be characterized as *mesoeutrophic*, or moderately to highly productive, based on chlorophyll *a*, water clarity (both indicative of *mesotrophic*, or moderately productive lakes) and total phosphorus readings (typical of *eutrophic*, or highly productive, lakes). However, chlorophyll *a* readings in 2014 and 2015 were more typical of *oligotrophic* (highly unproductive) lakes. The TSI evaluation suggests that algae levels are often much lower than expected given the nutrient and water clarity readings in the lake. This may be due to high pond turnover rates (water moving in and out of the pond quickly), or other factors influencing the amount or form of algae growth. Overall trophic conditions are summarized on the Lake Scorecard.

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 the lake is not classified for use for drinking water. 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 lower than normal in 2014 and 2015, but no long-term trends have been apparent. NOx and calcium levels were slightly higher than usual in 2015, and these readings (along with ammonia and conductivity levels) have increased slightly in the last few years.

Chloride levels in the 2015 samples, collected for the first time through CSLAP and cited in Appendix A, were approximately 22 mg/l. These values fall within the range for "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 generally below the typical 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.

Evaluation of Biological Condition

Macrophyte, zooplankton and macroinvertebrate surveys have not been evaluated through CSLAP in Little Long Pond, and the composition of the fish community is not known. Fluoroprobe (raw water) samples analyzed by SUNY ESF showed low open water algae levels and low blue green algae levels. The algae communities in these samples have been comprised primarily of green algae. No open water or shoreline blue green algae blooms have been reported or sampled at the lake.

Fanwort (*Cabomba caroliniana*), an exotic plant, has been reported at the lake.

Evaluation of Lake Perception

Water quality assessments were more favorable than normal in each of the last several years, at times consistent with slightly higher (and slightly increasing) water clarity readings. This was consistent with recreational assessments that have also improved since the late 2000s, although these assessments have been mostly favorable in the last few years. Aquatic plant coverage has varied somewhat unpredictably over the last decade. Lake perception does not exhibit any clear seasonal patterns. Overall lake perception is summarized on the Lake Scorecard.

Evaluation of Local Climate Change

Water temperature readings in the summer index period were lower than normal in 2014, but higher than usual in 2015, and these readings have decreased slightly over the last eight years. It is not known if local climate changes can be well evaluated through CSLAP; it is premature to expect significant changes as observable with only a few years of sampling data.

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 were below the threshold for harmful algal blooms (HABs) in the open water. Microcystin (algal toxin) levels are well below the levels needed to support safe swimming in open water. No shoreline blooms have been reported or sampled.

Lake Condition Summary

Category	Indicator	Min	Overall Avg	Max	2015 Avg	Classification	2015 Change?	Long-term Change?
Eutrophication Indicators	Water Clarity	0.75	2.70	4.00	3.07	Mesotrophic	Within Normal Range	No Change
	Chlorophyll *a*	0.10	2.08	10.14	1.67	Mesotrophic	Within Normal Range	No Change
	Total Phosphorus	0.003	0.029	0.173	0.015	Eutrophic	Lower Than Normal	No Change
Potable Water Indicators	Hypolimnetic Ammonia							Not known
	Hypolimnetic Arsenic							Not known
	Hypolimnetic Iron							Not known
	Hypolimnetic Manganese							Not known
Limnological Indicators	Hypolimnetic Phosphorus							Not known
	Nitrate + Nitrite	0.03	0.14	0.54	0.22	Intermediate NOx	Higher than Normal	Increasing Slightly
	Ammonia	0.03	0.13	0.45	0.10	Intermediate Ammonia	Within Normal Range	No Change
	Total Nitrogen	0.39	0.88	1.40	0.89	Intermediate Total Nitrogen	Within Normal Range	No Change
	pH	6.81	7.57	8.39	7.69	Alkaline	Higher than Normal	No Change
	Specific Conductance	18	135	176	142	Intermediate Hardness	Within Normal Range	No Change
	True Color	1	27	59	23	Intermediate Color	Within Normal Range	No Change
	Calcium	6.5	7.9	9.6	8.5	Not Susceptible to Zebra Mussels	Within Normal Range	No Change
Lake Perception	WQ Assessment	1	1.3	3	1.0	Crystal Clear	Within Normal Range	Highly Improving
	Aquatic Plant Coverage	1	3.0	4	3.0	Surface Plant Growth	Within Normal Range	No Change
	Recreational Assessment	1	1.2	3	1.2	Could Not Be Nicer	Within Normal Range	No Change
Biological Condition	Phytoplankton					No fluoroprobe samples submitted for analysis	Not known	Not known
	Macrophytes					Not measured through CSLAP	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					Fanwort?	Improving	Not known
Local Climate Change	Air Temperature	10	23.6	34	25.7		Higher Than Normal	No Change
	Water Temperature	11	24.7	31	25.6		Within Normal Range	Decreasing Slightly
Harmful Algal Blooms	Open Water Phycocyanin	0	9	46	9	No readings indicate high risk of BGA	Not known	Not known
	Open Water FP Chl.a	1	2	6	2	No readings indicate high algae levels	Not known	Not known
	Open Water FP BG Chl.a	0	0	1	0	No readings indicate high BGA levels	Not known	Not known
	Open Water Microcystis	<DL	<DL	0.4	<DL	Low to undetectable open water microcystins	Not known	Not known
	Open Water Anatoxin a	<DL	<DL	<DL	<DL	Open water Anatoxin-a consistently not detectable	Not known	Not known
	Shoreline Phycocyanin					No shoreline blooms sampled for PC	Not known	Not known
	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

Little Long Pond is presently listed on the Atlantic Ocean / Long Island Sound PWL as having no known impacts to lake use, last updated in 2011.

Potable Water (Drinking Water)

The CSLAP dataset at Little Long Pond, 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 algae levels in the lake suggest that the "unofficial" potable water use may be threatened by occasionally elevated nutrient levels, although it appears that algae levels (at least in the open water) are often low.

Public Bathing

The CSLAP dataset at Little Long Pond, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggests that public bathing, if conducted at a public swimming beach, would be supported, although occasionally low water clarity and very high phosphorus readings may *threaten* this use. Additional information about bacterial levels is needed to evaluate the safety of the water for swimming (and it is not known if any swimming occurs in the lake).

Recreation (Swimming and Non-Contact Uses)

The CSLAP dataset on Little Long Pond, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that recreation should be supported, although this use may be *threatened* by elevated nutrients and surface plant growth.

Aquatic Life

The CSLAP dataset on Little Long Pond, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that aquatic life should be fully supported, although this use may be *threatened* by road salt runoff and invasive 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 Little Long Pond, including water chemistry data, physical measurements, and volunteer samplers' perception data, suggest that aesthetics may be *fair* due to high nutrients and associated nuisance plant growth. Habitat appears to be good.

Fish Consumption

There are no fish consumption advisories posted for Little Long Pond.

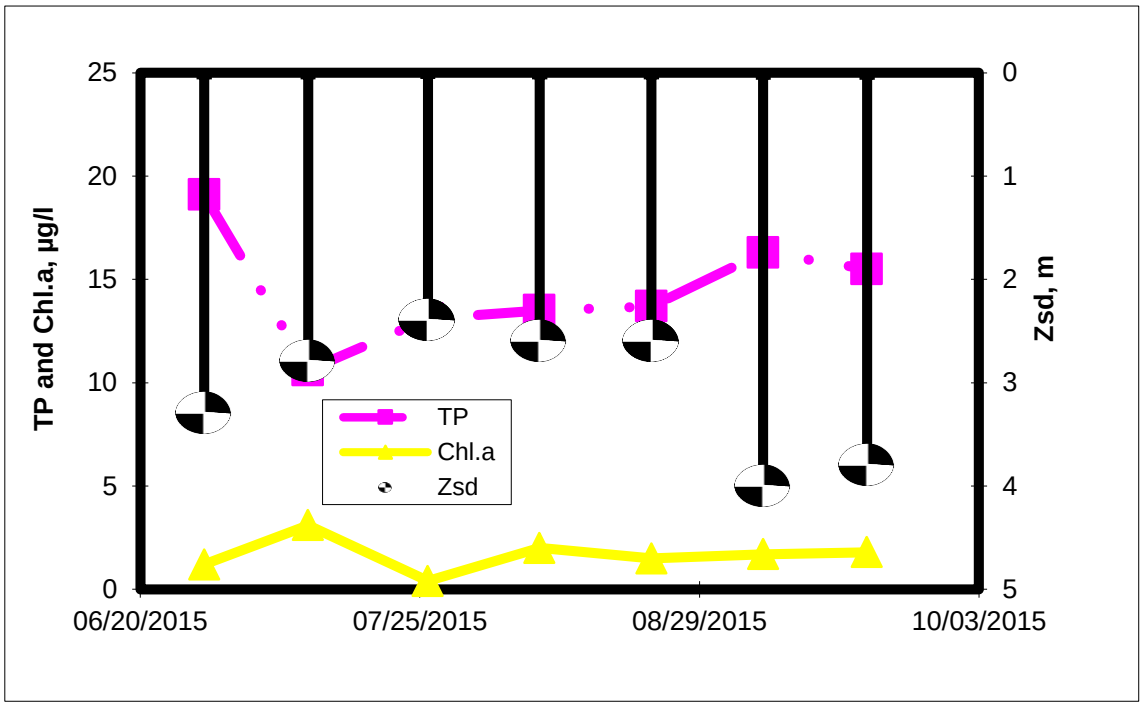
Additional Comments and Recommendations

Aquatic plant monitoring in Little Long Pond may be useful in determining if the plant community is more strongly affected by native or invasive plants. Lake residents and samplers should report any shoreline blooms.

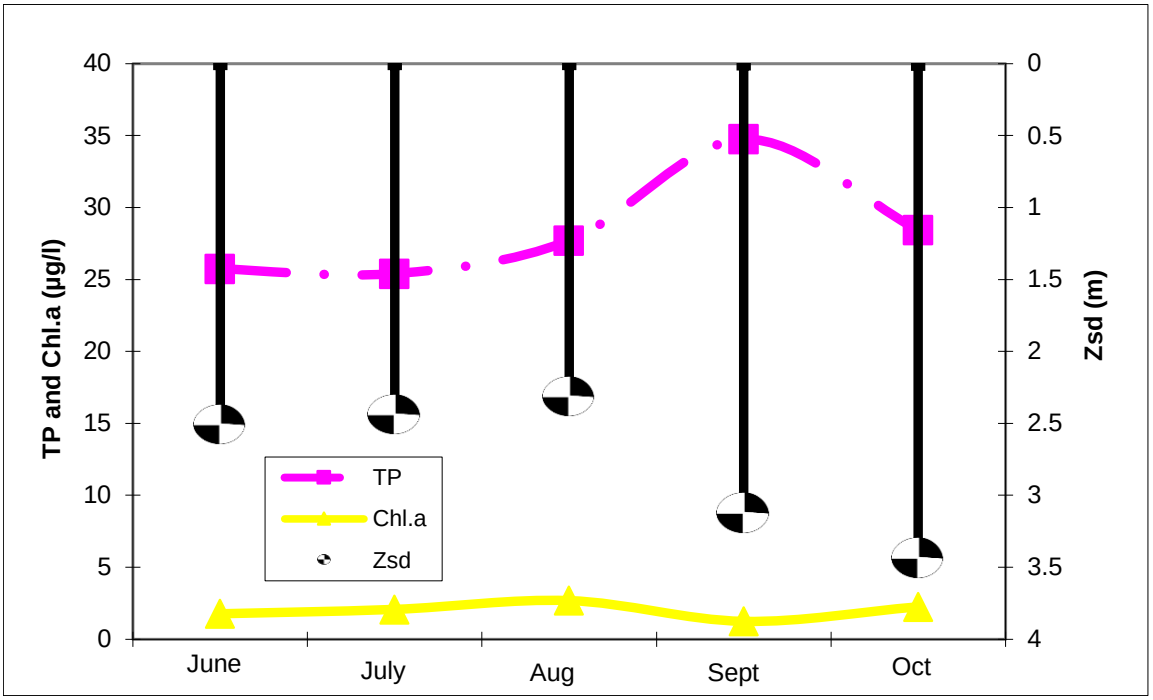
Aquatic Plant IDs-2015

None submitted for identification in 2015.

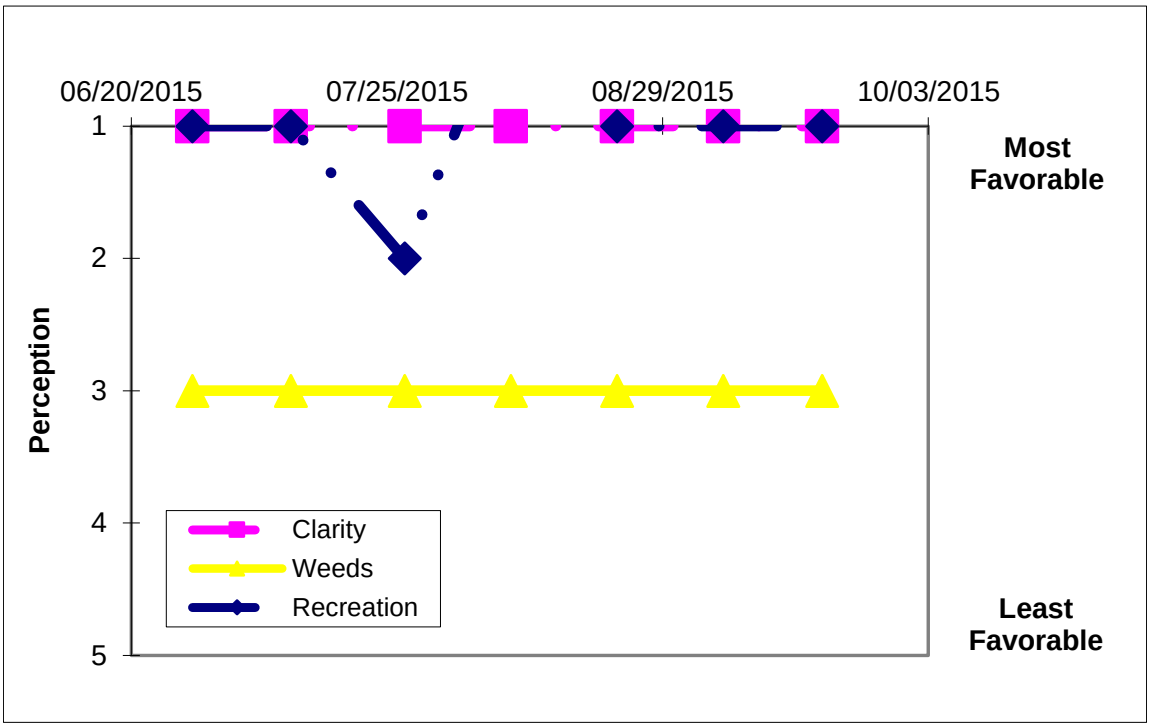
Time Series: Trophic Indicators, 2015



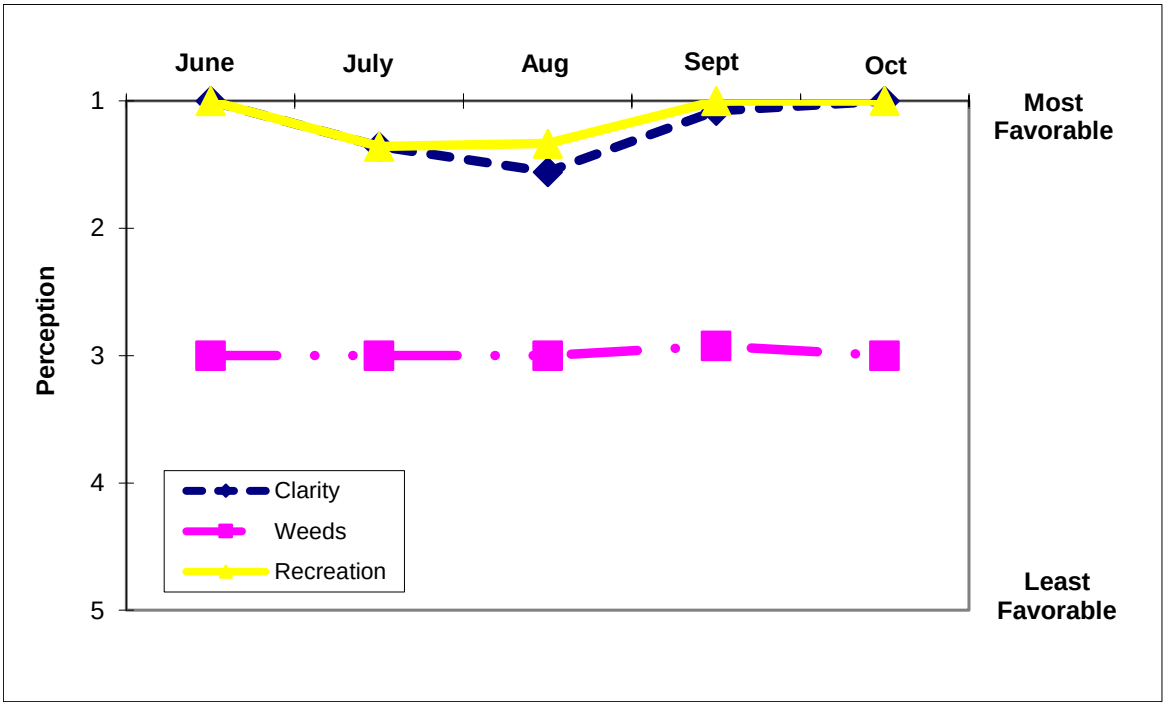
Time Series: Trophic Indicators, Typical Year (2006-2015)



Time Series: Lake Perception Indicators, 2015



Time Series: Lake Perception Indicators, Typical Year (2006-2014)



Appendix A- CSLAP Water Quality Sampling Results for Little Long Pond

LNum	PName	Date	Zbot	Zsd	Zsamp	Tot.P	NO3	NH4	TDN	TN/TP	TColor	pH	Cond25	Ca	Chl.a	Cl
210	Little Long P	8/8/2006	5.5	2.20	1.5	0.017	0.1	0.1	0.99	59.14	28	7.80	144	7.6	0.52	
210	Little Long P	8/25/2006	5.0	2.60	3.2	0.008	0.1	0.1	1.17	145.81	37	7.02	115		0.10	
210	Little Long P	9/16/2006	3.0	0.75	2.0	0.012	0.1	0.1			32	8.32	72		0.61	
210	Little Long P	7/25/2007	4.5	3.10	1.5	0.036	0.16	0.20	0.92	57.1	15	8.0	124	6.8	0.94	
210	Little Long P	8/9/2007	5.6	1.60	1.5	0.037	0.14	0.08	0.91	54.3	24	7.1	122		1.67	
210	Little Long P	8/22/2007	8.5	1.75	1.5	0.015	0.14	0.08	0.81	117.8	1	7.6	104		1.71	
210	Little Long P	8/30/2007	5.9	2.35	2.0	0.003	0.14	0.06	0.78	692.8	28	7.7	96		2.66	
210	Little Long P	7/10/2008	4.6	3.10	2.0	0.016	0.08	0.27	1.40	192.03	29	6.96	135	7.8	0.10	
210	Little Long P	7/22/2008		1.37	1.3	0.016	0.10	0.17	0.83	115.00	24	7.45	126		5.47	
210	Little Long P	8/12/2008		1.23	1.5	0.019	0.08	0.12	0.66	76.37	22	8.13	143		10.14	
210	Little Long P	8/18/2008	6.1	3.40	1.3	0.014	0.03	0.04	0.45	70.02	18	7.49	131		7.84	
210	Little Long P	07/13/2009	4.8	2.50	1.5	0.024	0.18	0.07	0.69	64.60	34	7.35	93	6.5	3.28	
210	Little Long P	08/12/2009	6.0	2.85	1.3	0.015	0.09	0.06	0.54	81.67	37	7.56	72		0.10	
210	Little Long P	08/31/2009	5.9	2.70	1.6	0.025	0.07	0.07	0.61	54.06	59	7.64	109		0.10	
210	Little Long P	07/18/2011	5.8	1.90	1.8	0.036	0.15	0.03	0.75	46.17	22	7.91	159	7.2	2.50	
210	Little Long P	07/24/2011	5.2	1.82	2.3	0.041	0.21	0.11	0.85	45.62	27	8.35	138		2.20	
210	Little Long P	08/07/2011	5.9	1.39	2.4	0.031	0.11	0.06	0.74	52.30	24	7.09	134		2.80	
210	Little Long P	08/21/2011				0.023	0.09	0.03	0.99	96.51	18	7.71	154		2.60	
210	Little Long P	09/05/2011	5.3	2.44		0.020	0.10	0.12	0.80	88.22	23	7.51	133	7.6	1.10	
210	Little Long P	09/11/2011	5.3	3.47	2.3	0.011	0.14	0.19	0.82	169.15	28	7.48	136		0.90	
210	Little Long P	09/18/2011	5.2	3.20		0.045	0.16	0.20	0.73	35.38	10	7.76	155		1.90	
210	Little Long P	10/01/2011		3.10		0.019	0.24	0.24	1.02	116.61	23	8.09	138		1.40	
210	Little Long P	07/22/2012	5.0	1.94	2.1	0.020	0.11	0.06	0.86	94.57	27	7.60	151	9.4	2.60	
210	Little Long P	07/31/2012	4.6	2.48	2.1	0.025	0.12	0.21	0.88	78.66	26	6.81	144		3.70	
210	Little Long P	08/12/2012	5.3	2.20	2.1	0.037	0.07	0.17	1.00	59.00	24	7.75	159		1.30	
210	Little Long P	08/26/2012	5.1	3.43	2.1	0.172	0.10	0.16	1.07	13.68	30	7.58	153		4.00	
210	Little Long P	09/09/2012	5.1	3.13	2.1	0.069	0.08	0.23	0.94	29.75	34	7.71	176	9.6	2.00	
210	Little Long P	09/23/2012	5.1	3.74	2.1	0.173	0.11	0.28	1.10	14.04	29	7.55	164		1.30	
210	Little Long P	10/08/2012	4.9	3.44	2.1	0.030	0.20	0.38	1.17	85.87	27	7.55	171		4.40	
210	Little Long P	10/22/2012	4.5	3.58	2.1	0.047	0.29	0.45	1.25	58.93	25	7.59	158		2.50	
210	Little Long P	06/23/2013	5.8	2.65	2.1	0.020	0.32	0.07	0.90	97.96	21	7.38	139		0.60	
210	Little Long P	07/06/2013	5.6	3.95	5.6	0.035			0.65	40.79	28	7.22	144		0.50	
210	Little Long P	07/21/2013	5.4	1.25	2.1	0.029	0.11	0.06	0.60	45.61	39	7.23	18		1.60	
210	Little Long P	08/05/2013	5.2	3.40	2.1	0.022			0.91	92.88	39	7.46	160		0.80	
210	Little Long P	08/18/2013	4.4	2.75	2.1	0.020	0.06	0.05	0.81	90.93	43	8.13	152		9.10	
210	Little Long P	09/01/2013	5.3	3.10	2.1	0.016			0.62	82.72	36	7.48	155		0.50	
210	Little Long P	09/15/2013	5.3	3.31	2.1	0.021	0.08	0.05	1.09	113.23	28	7.72	133		2.60	
210	Little Long P	09/30/2013	5.3	3.20		0.013			0.80	130.69	23	7.65	152		0.70	
210	Little Long P	6/30/2014	6.1	1.58	1.5	0.038	0.18	0.10	0.88	50.83	28	7.36	128	7.0	3.50	
210	Little Long P	7/13/2014	5.8	3.03	1.5	0.036			1.06	65.32	27	7.06	123		0.80	
210	Little Long P	7/28/2014	5.6	2.60	1.5	0.020	0.10	0.07	0.39	42.05	20	7.70	144		1.80	
210	Little Long P	8/17/2014	5.6	2.55	1.5	0.021			1.02	107.36	32	7.37	135		0.80	
210	Little Long P	8/31/2014	4.2	2.45	1.5	0.023	0.12	0.06	0.85	82.48	27	7.46	151	7.8	1.20	
210	Little Long P	9/13/2014	5.2	3.45	1.5	0.023			0.81	78.56	28	7.13	139		0.30	
210	Little Long P	9/28/2014	3.5	3.05	1.5	0.017	0.16	0.19	1.27	169.87	26	7.98	126		0.70	
210	Little Long P	10/12/2014	5.0	3.64	1.5	0.018			1.06	131.38	21	6.98	159		0.70	
210	Little Long P	6/28/2015	5.1	3.30	1.5	0.019	0.54	0.06	1.06	55.24	15	7.45	141	8.5	1.20	
210	Little Long P	7/11/2015	5.5	2.80	1.5	0.011			0.92	86.79	24	6.96	63		3.10	
210	Little Long P	7/26/2015	5.3	2.40	1.5	0.013	0.15	0.07	0.76	58.02	25	7.50	155		0.40	21.9
210	Little Long P	8/9/2015	5.4	2.60	1.5	0.014			0.95	70.00	30	8.39	169		2.00	
210	Little Long P	8/23/2015	5.6	2.60	1.5	0.014	0.09	0.16	0.88	64.31	25	7.69	153	8.5	1.50	
210	Little Long P	9/6/2015	5.3	4.00	1.5	0.016			0.84	51.66	20	7.75	151		1.70	
210	Little Long P	9/19/2015	5.9	3.80	1.5	0.016	0.12	0.11	0.80	51.42	22	8.07	162		1.80	21.9

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
210	Little Long P	8/8/2006	epi		29	2	3	2	0											
210	Little Long P	8/25/2006	epi	24	26	2	3	3	2											
210	Little Long P	9/16/2006	epi	24	22	2	2	1	0											
210	Little Long P	7/25/2007	epi	26	27	2	3	1	0											
210	Little Long P	8/9/2007	epi	23	28	3	3	1	0											
210	Little Long P	8/22/2007	epi	18	28	2	3	1	0											
210	Little Long P	8/30/2007	epi	24	25															
210	Little Long P	7/10/2008	epi	26	28	2	3	2	8											
210	Little Long P	7/22/2008	epi	26	31	2	3	1	0											
210	Little Long P	8/12/2008	epi	23	27	2	4	2	0											
210	Little Long P	8/18/2008	epi	24	27	3	3	2	0											
210	Little Long P	07/13/2009	epi	22	25	2	3	2	0											
210	Little Long P	08/12/2009	epi	28	27	2	3	2	8											
210	Little Long P	08/31/2009	epi	21	24	2	3	2	0											
210	Little Long P	07/18/2011	epi	24		2	3	3	5	0	0	12.80	4.10							
210	Little Long P	07/24/2011	epi	28	29	1	3	1	0	0	0	18.30	5.94							
210	Little Long P	08/07/2011	epi	30	29	1	1	1	5	0	0	46.30	12.80	0.54	<0.5	<0.1			i	
210	Little Long P	08/21/2011	epi			1	3	1	0	0	0	29.70	10.70						i	
210	Little Long P	09/05/2011	epi	29	27	1	3	1	0	0	0	4.80	4.00						i	
210	Little Long P	09/11/2011	epi	20	23	1	3	1	0	0	0								i	
210	Little Long P	09/18/2011	epi	17	21	1	3	1	0	0	0	7.20	4.30						i	
210	Little Long P	10/01/2011	epi	20	23	1	3	1	0	0	0	5.90	3.50						i	
210	Little Long P	07/22/2012	epi	33	27	1	3	1	0	0	0								I	
210	Little Long P	07/31/2012	epi	22	26	1	3	1	0	0	0								I	
210	Little Long P	08/12/2012	epi	27	28	1	3	1	0	0	0								I	
210	Little Long P	08/26/2012	epi	26	21	1	3	1	0	0	0								I	
210	Little Long P	09/09/2012	epi	16	20	1	3	1	0	0	0								I	
210	Little Long P	09/23/2012	epi	20	22	1	3	1	0	0	0								I	
210	Little Long P	10/08/2012	epi	10	11	1	3	1	0	0	0								I	
210	Little Long P	10/22/2012	epi	16	11	1	3	1	0	0	0								I	
210	Little Long P	06/23/2013	epi	26	24	1	3	1	0	0	0	3.80	1.40	<0.30	<0.410	1.40	0.00	3.80	I	I
210	Little Long P	07/06/2013	epi	34	30	1	3	1	0	0	0	3.10	1.20	<0.30	<0.510	1.40	0.00	3.10	I	I
210	Little Long P	07/21/2013	epi	31	28	1	3	1	0	0	0	11.90	5.00	<0.30	<0.910	5.60	0.90	11.90	I	I
210	Little Long P	08/05/2013	epi	25	27	1	3	1	0	0	0	4.30	2.60	<0.30	<0.390	1.50	0.00	4.30	I	I
210	Little Long P	08/18/2013	epi	21	24	1	3	1	0	0	0	8.10	3.30	<0.30	<0.510	3.00	0.10	8.10	I	I
210	Little Long P	09/01/2013	epi	24	24	1	3	1	0	0	0	5.50	1.80	<0.30	<1.100	1.20	0.00	5.50	I	I
210	Little Long P	09/15/2013	epi	19	22	1	3	1	0	0	0	3.60	2.20	<0.30	<1.240	1.20	0.00	3.60	I	I
210	Little Long P	09/30/2013	epi	15	18	1	3	1	0	0	0	6.70	1.50	<0.30	<0.100	0.90	0.00	6.70	I	I
210	Little Long P	6/30/2014	epi	24	27	1	3	1	0	0	0			<0.62	<0.03	<0.002	2.19	0.59	i	i
210	Little Long P	7/13/2014	epi	23	27	1	3	1	0	0	0	3.80	0.30	<0.40	<0.21	<0.003	1.24	0.00	i	i
210	Little Long P	7/28/2014	epi	25	26	1	3	1	0	0	0	2.90	0.40	<0.33	<0.01	<0.002	1.59	0.00	i	i
210	Little Long P	8/17/2014	epi	23	24	1	3	1	0	0	0			<0.39	<0.03	<0.001			i	i
210	Little Long P	8/31/2014	epi	26	25	1	4	1	0	0	0	3.60	0.50	<0.29	<0.14	<0.002	1.97	0.00	i	i
210	Little Long P	9/13/2014	epi	21	23	1	3	1	0	0	0	3.70	0.50	<0.24	<0.03	<0.001	1.70	0.00	i	i
210	Little Long P	9/28/2014	epi	27	22	1	3	1	0	0	0	2.20	0.40	<0.19	<0.12	<0.001	1.49	0.00	i	i
210	Little Long P	10/12/2014	epi	17	18	1	3	1	0	0	0	3.30	0.30	<0.73	<0.12	<0.001	1.36	0.00	i	i
210	Little Long P	6/28/2015	epi	21	24	1	3	1	0	0	0	1.80	0.50	<0.86	<0.007	<0.040	1.40	0.00	I	I
210	Little Long P	7/11/2015	epi	30	25	1	3	1	0	0	0	8.20	0.80	<1.01	<0.003	<0.011	3.40	0.00	I	I
210	Little Long P	7/26/2015	epi	26	29	1	3	2	5	0	0	6.50	0.90	<0.30	<0.002	<0.014	3.80	0.00	I	I
210	Little Long P	8/9/2015	epi	27	27	1	3		0	0	0	11.80	1.00	<0.18	<0.002	<0.009	2.50	0.00	I	I
210	Little Long P	8/23/2015	epi	25	27	1	3	1	0	0	0	26.30	0.50	<0.21	<0.003	<0.010			I	I
210	Little Long P	9/6/2015	epi	25	24	1	3	1	0	0	0			<0.37	<0.012	<0.031			I	I
210	Little Long P	9/19/2015	epi	26	23	1	3	1	0	0	0	0.05	0.30	<0.30	<0.007	<0.035	0.90	0.00	I	I

Legend Information

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

Appendix B- Priority Waterbody Listing for Little Long Pond

Little Long, Long, and Shorts Ponds (1701-0291) NoKnownImpct

Waterbody Location Information Revised: 04/21/2011

Water Index No:	(MW7.1b) AO-P790-P799,P800,P803	**Drain Basin:**	Atlantic-Long Island Sound
Hydro Unit Code:	02030202/170 **Str Class:** C		Southern Long Island
Waterbody Type:	Lake	**Reg/County:**	1/Suffolk Co. (52)
Waterbody Size:	48.9 Acres	**Quad Map:**	()
Seg Description:	total area of all three lakes		

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

Use(s) Impacted	Severity	Problem Documentation
NO USE IMPAIRMNT		

Type of Pollutant(s)
Known: - - -
Suspected: - - -
Possible: - - -

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

Resolution/Management Information

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

Further Details

Water Quality Sampling
Little Long Pond has been sampled as part of the New York Citizens Statewide Lake Assessment Program (CSLAP) since 2007. Little Long Pond has not been sampled through any previous NYSDEC monitoring program. It is not known if the lake has been sampled by any organizations associated with the Long Island Greenbelt (see below). Little Long Pond can be characterized as mesotrophic, or moderately productive. The typical water clarity reading (TSI = 48, representative of mesotrophic lakes) was in the expected range given the typical phosphorus reading (TSI = 46, representative of mesotrophic lakes), and given the typical chlorophyll a reading (TSI = 40, representative of mesotrophic lakes). These data indicate that the lake does not appear to be susceptible to algal blooms, although both water clarity and algae levels may be limited by turbidity from suspended sediment, as commonly occurs in shallow ponds. The data otherwise indicate that the lake has softwater, intermediate nitrogen and color levels, and surface plant growth, although no invasive exotic plant species have been reported in the lake. (DEC/DOW, BWAM/LMAS, March 2011)

Segment Description

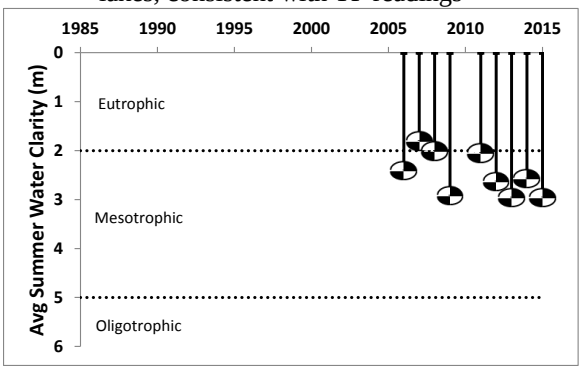
Little Long Pond is a 13 acre, class C lake found in the Town of Southampton in Suffolk County. It is part of the Long Pond Greenbelt complex. The Long Pond Greenbelt is an approximately 11-kilometer (7-mile) north-south corridor of ponds, streams, and adjacent upland areas in the Outer Coastal Plain physiographic province. The preservation of land in the Long Pond Greenbelt has been a goal in the master plan for the town of Southampton since 1970. Long Pond Greenbelt is recognized by the New York State Department of State as a Significant Coastal Fish and Wildlife Habitat, and by the U.S. Fish and Wildlife Service as a priority wetland complex under the federal Emergency Wetlands Resources Act of 1986. The New York State Natural Heritage Program, in conjunction with The Nature Conservancy, recognizes several Priority Sites for Biodiversity within the Long Pond Greenbelt complex. Other excellent examples of coastal plain pond shore communities occur at Lily Pond and Black Pond. Information about the Long Pond Greenbelt can be found at http://library.fws.gov/pubs5/web_link/te xt/lpg_form.htm. (DEC/DOW, BWAM/LMAS, March 2011)

This segment includes the total area of Little Long Pond (P799), Long Pond (P800) and Shorts Pond (P803), as well as the smaller Goldfish Pond (P801) and unnamed pond (P802).

Appendix C- Long Term Trends: Little Long Pond

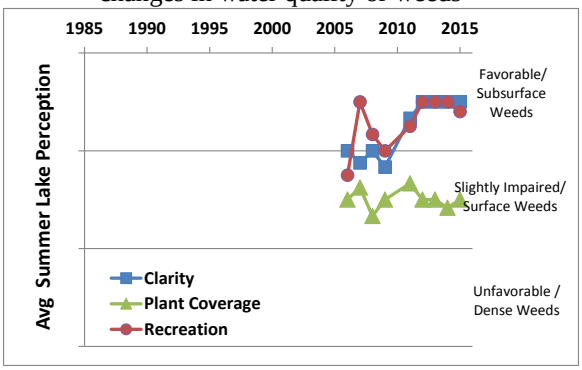
Long Term Trends: Water Clarity

- No trends apparent; slightly higher since '10
- Most readings typical of *mesoeutrophic* lakes, consistent with TP readings



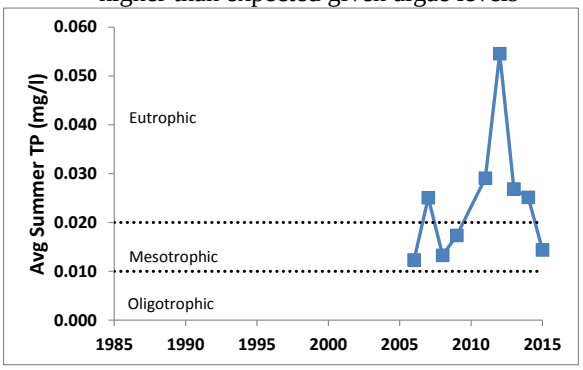
Long Term Trends: Lake Perception

- WQ and recreational assessments improved
- Recreational perception not closely linked to changes in water quality or weeds



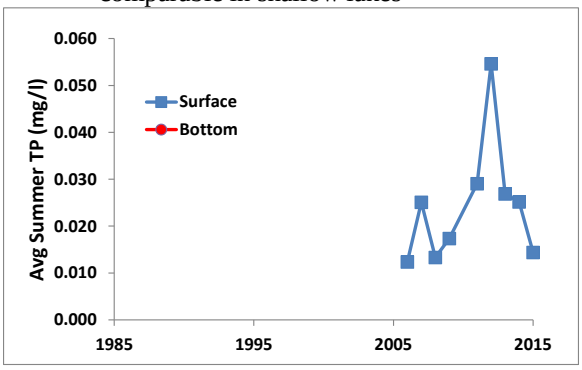
Long Term Trends: Phosphorus

- ↑ mid-2000s to 2011; decreasing since
- Recent readings typical of *eutrophic* lakes, higher than expected given algae levels



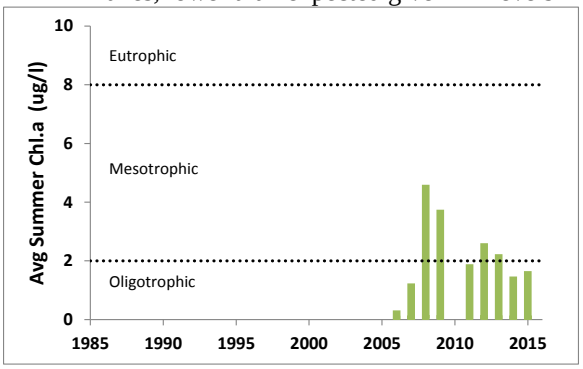
Long Term Trends: Bottom Phosphorus

- No deepwater TP readings
- Surface and bottom TP readings usually comparable in shallow lakes



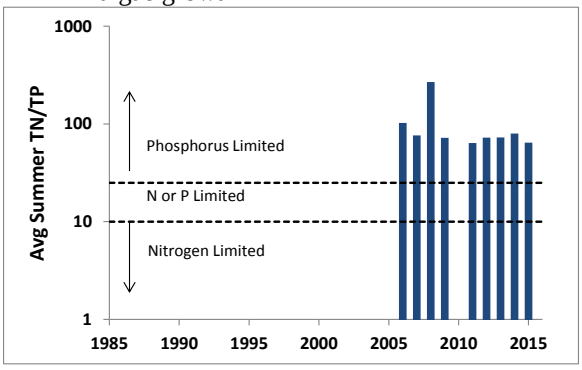
Long Term Trends: Chlorophyll a

- Decreasing since late 2000s
- Most readings typical of *mesoligotrophic* lakes, lower than expected given TP levels



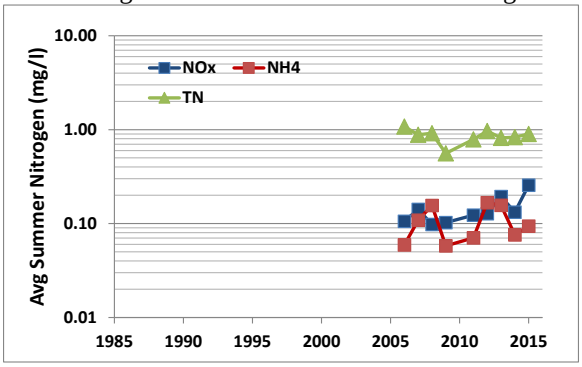
Long Term Trends: N:P Ratio

- No clear trends; perhaps slight decrease?
- Most readings indicate phosphorus limits algae growth



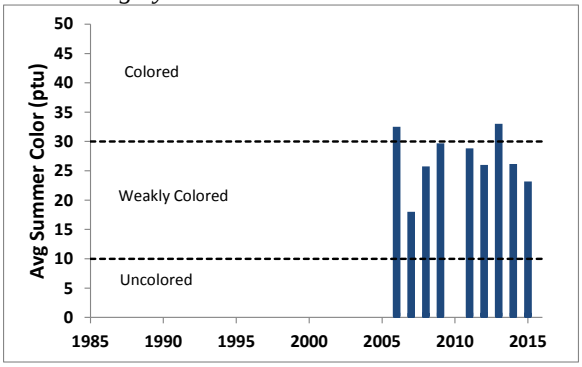
Long Term Trends: Nitrogen

- Slight ↑ NOx, NH4; no TN trend apparent
- Total nitrogen readings elevated at times; higher than in other lakes w/similar algae



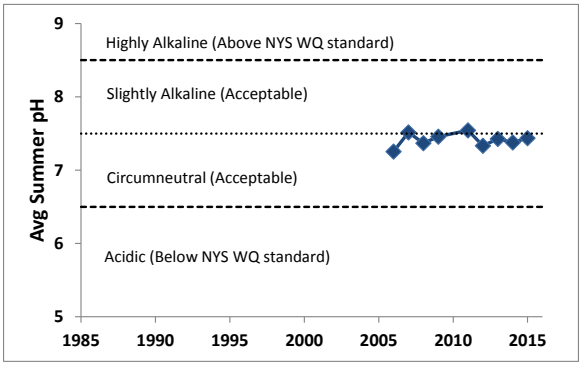
Long Term Trends: Color

- No trends apparent; variable year to year
- Most readings typical of *weakly colored* to *highly colored* lakes



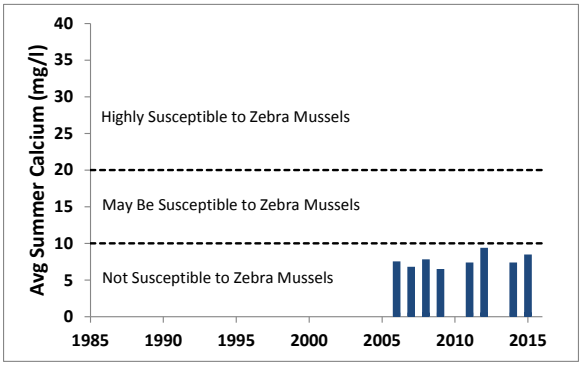
Long Term Trends: pH

- No trends apparent; most readings stable
- Most readings typical of *slightly alkaline* to *circumneutral* lakes



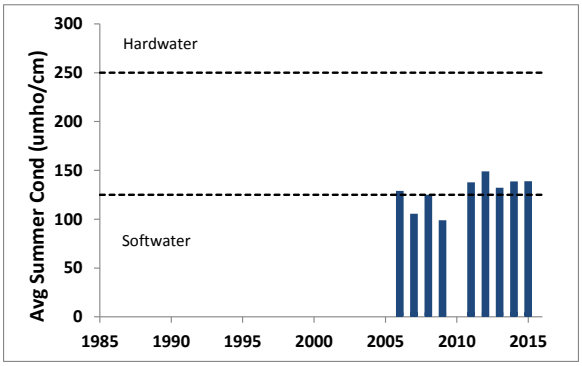
Long Term Trends: Calcium

- No clear trends; perhaps slight increase
- Data indicates low susceptibility to zebra mussels



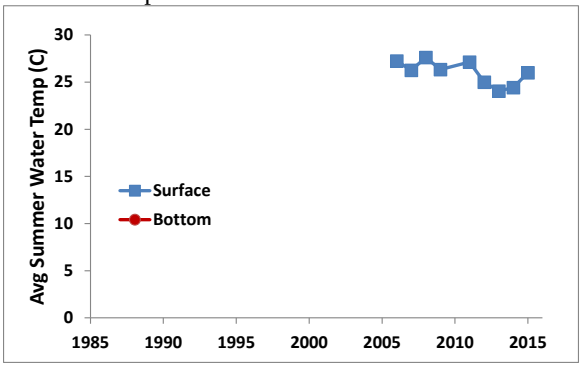
Long Term Trends: Conductivity

- No clear trends; perhaps slight rise
- Most readings typical of *softwater* to *intermediate* hardness lakes



Long Term Trends: Water Temperature

- Slight decrease since mid-2000s
- Surface and bottom temperatures probably comparable in shallow lakes



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.

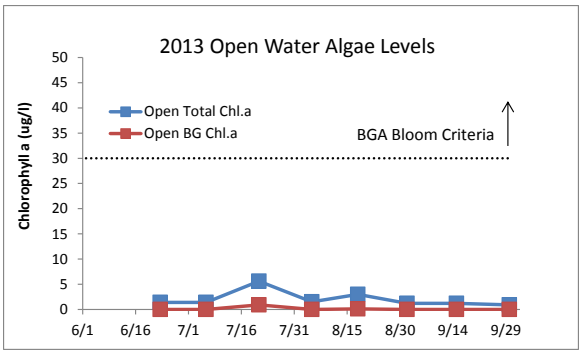


Figure D1:
2013 Open Water Total and BGA Chl.a

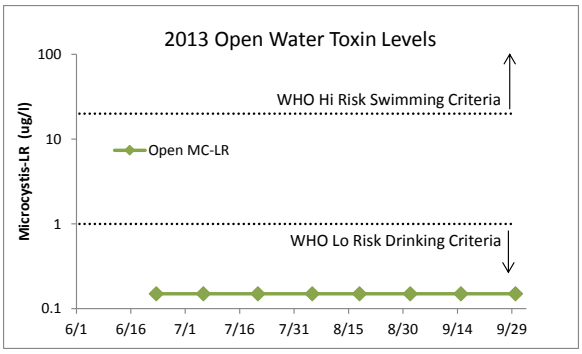


Figure D2:
2013 Open Water Microcystin-LR

Figure D3:
2013 Shoreline Total and BGA Chl.a

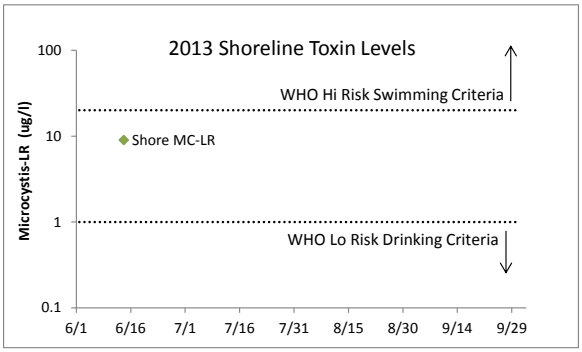


Figure D4:
2013 Shoreline Microcystin-LR

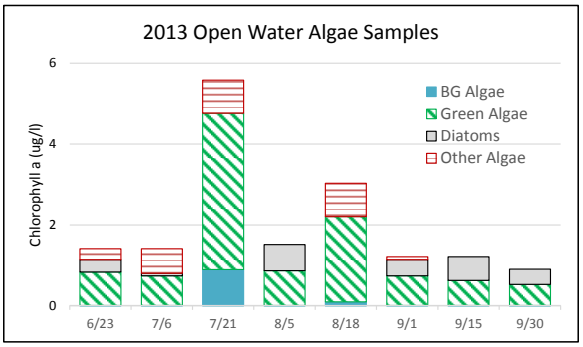


Figure D5:
2013 Open Water Algae Types

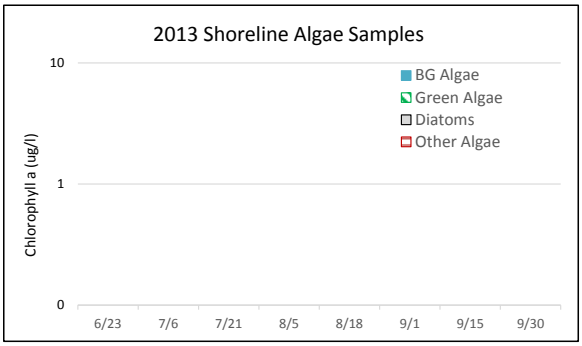


Figure D6:
2013 Shoreline Algae Types

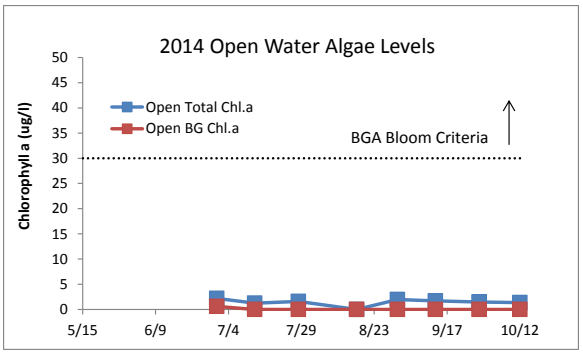


Figure D7:
2014 Open Water Total and BGA Chl.a

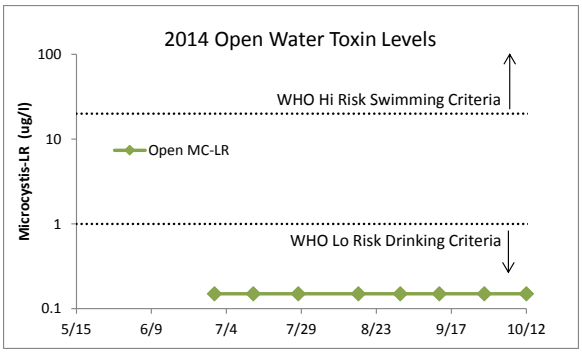


Figure D8:
2014 Open Water Microcystin-LR

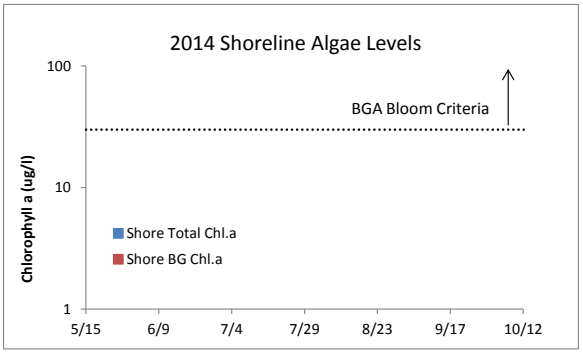


Figure D9:
2014 Shoreline Total and BGA Chl.a

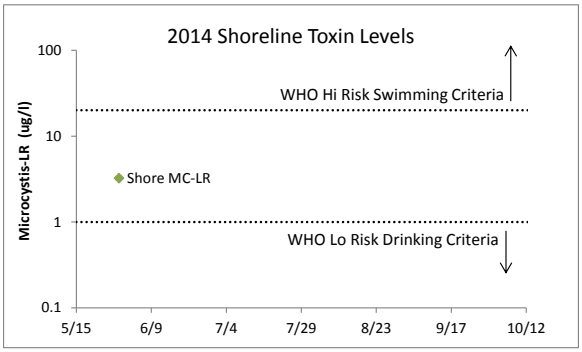


Figure D10:
2014 Shoreline Microcystin-LR

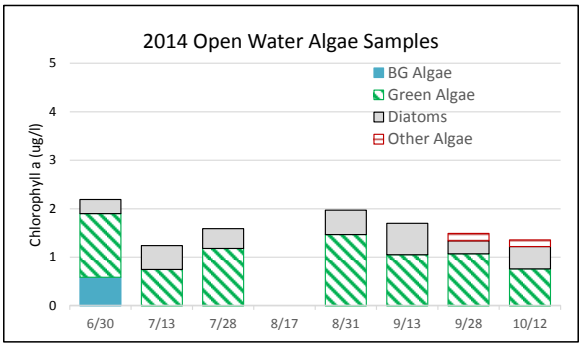


Figure D11:
2014 Open Water Algae Types

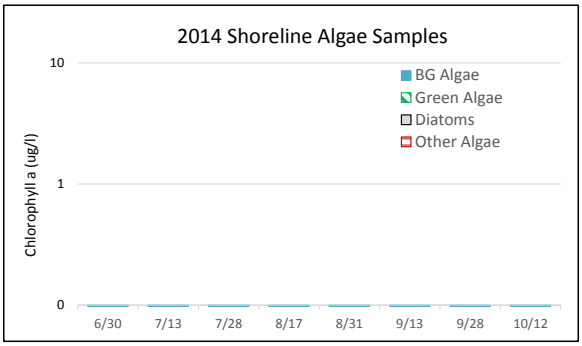


Figure D12:
2014 Shoreline Algae Types

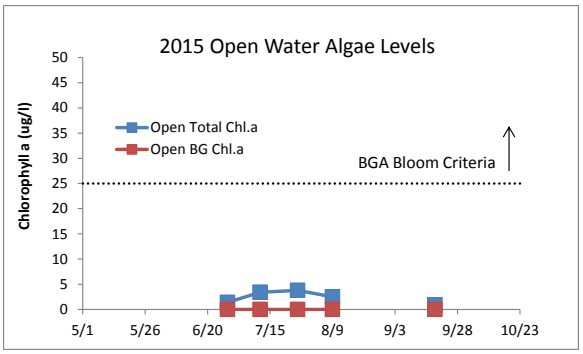


Figure D13:
2015 Open Water Total and BGA Chl.a

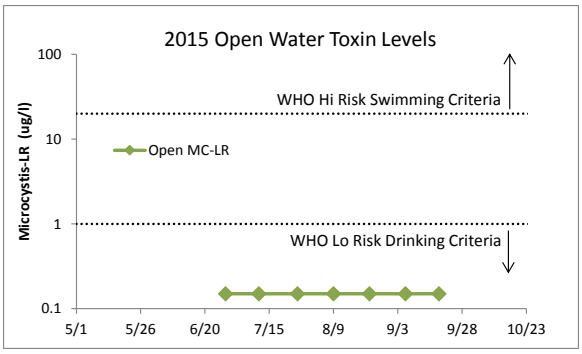


Figure D14:
2015 Open Water Microcystin-LR

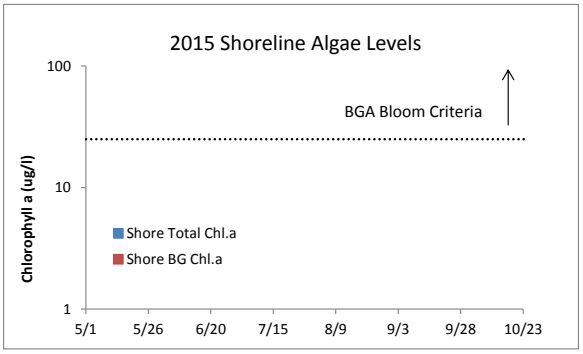


Figure D15:
2015 Shoreline Total and BGA Chl.a

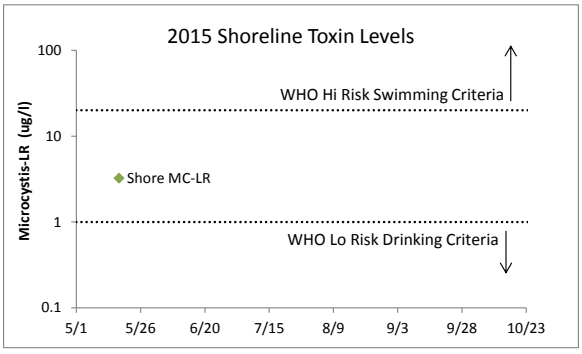


Figure D16:
2015 Shoreline Microcystin-LR

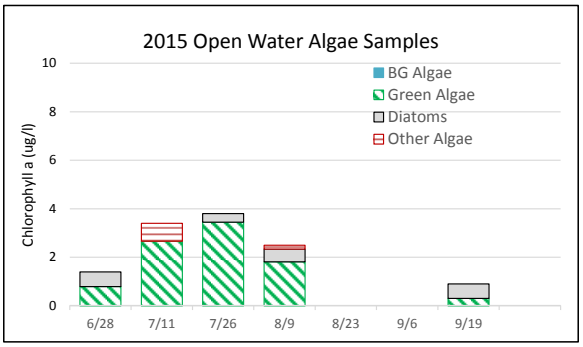


Figure D17:
2015 Open Water Algae Types

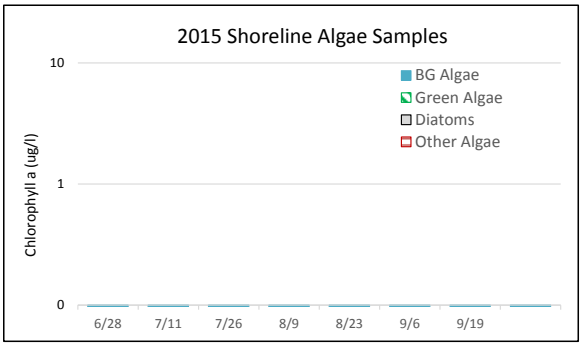


Figure D18:
2015 Shoreline Algae Types

Appendix E:
AIS Species in Suffolk County

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

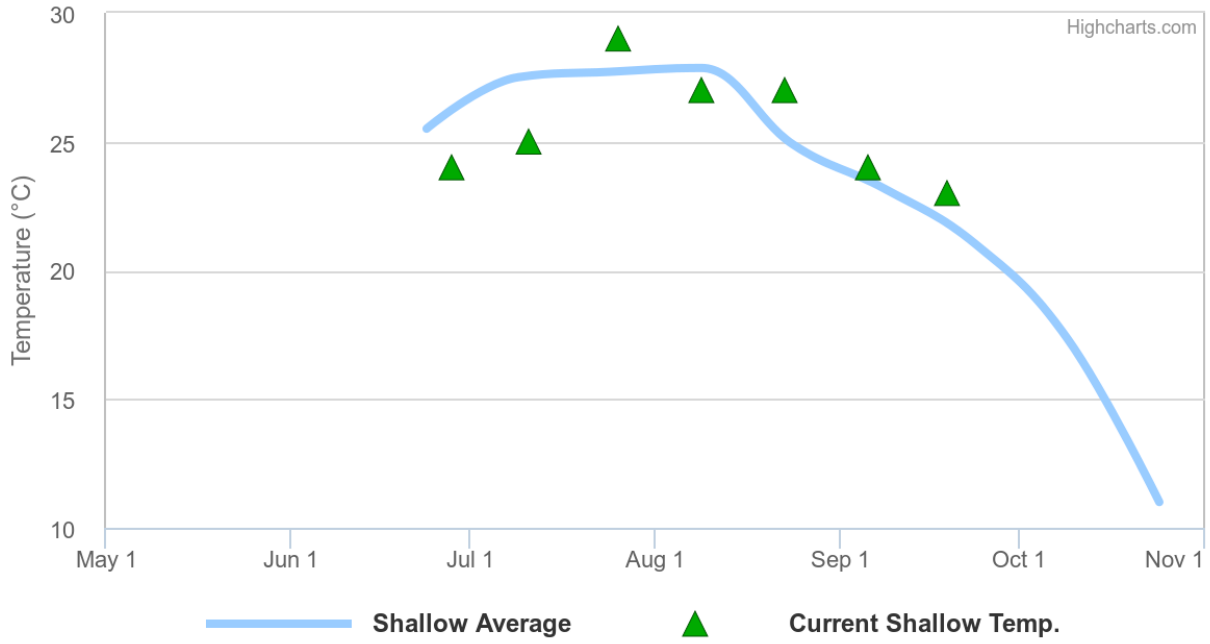
Aquatic Invasive Species - Suffolk County			
Waterbody	**Kingdom**	**Common name**	**Scientific name**
Artist Lake	Plant	Fanwort	*Cabomba caroliniana*
Artist Lake	Animal	Goldfish	*Carassius auratus*
Avon Manor Lake	Plant	Parrot feather	*Myriophyllum aquaticum*
Belmont Lake	Plant	Fanwort	*Cabomba caroliniana*
Belmont Lake	Animal	Common carp	*Cyprinus carpio*
Blydenburgh Pond aka New Mill Pond	Plant	Hydrilla	*Hydrilla verticillata*
Blydenburgh Pond aka New Mill Pond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Canaan Lake	Plant	Fanwort	*Cabomba caroliniana*
Canaan Lake	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Carlls River - Park Ave	Animal	Asian Clam	*Corbicula fluminea*
Donohue Pond	Plant	Fanwort	*Cabomba caroliniana*
Duck Pond	Plant	Fanwort	*Cabomba caroliniana*
Elda Lake	Plant	Curly leafed pondweed	*Potamogeton crispus*
Fort Pond	Animal	Common carp	*Cyprinus carpio*
Great Patchogue Lake	Plant	Fanwort	*Cabomba caroliniana*
Great Patchogue Lake	Plant	Brazilian elodea	*Egeria densa*
Great Patchogue Lake	Plant	Hydrilla	*Hydrilla verticillata*
Great Patchogue Lake	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Hards Pond	Plant	Fanwort	*Cabomba caroliniana*
Knapps Lake	Plant	Parrot feather	*Myriophyllum aquaticum*
Lake Ronkonkoma	Animal	Goldfish	*Carassius auratus*
Lake Ronkonkoma	Animal	Common carp	*Cyprinus carpio*
Lake Ronkonkoma	Plant	Hydrilla	*Hydrilla verticillata*

Waterbody	Kingdom	Common name	Scientific name
Lake Ronkonkoma	Plant	Eurasian watermilfoil	*Myriophyllum spicatum*
Lake Ronkonkoma	Plant	Brittle naiad	*Najas minor*
Little Fresh Pond	Plant	Fanwort	*Cabomba caroliniana*
Little Fresh Pond	Plant	Curly leafed pondweed	*Potamogeton crispus*
Little Long Pond	Plant	Fanwort	*Cabomba caroliniana*
Little Peconic Reservoir	Plant	Fanwort	*Cabomba caroliniana*
Long Pond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Lotus Lake	Plant	Fanwort	*Cabomba caroliniana*
Lotus Lake	Plant	Hydrilla	*Hydrilla verticillata*
Lotus Lake	Plant	European four leaf clover	*Marsilea quadrifolia*
Lotus Lake	Plant	Parrot feather	*Myriophyllum aquaticum*
Lotus Lake	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Lower Lake	Plant	Fanwort	*Cabomba caroliniana*
Lower Lake	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Lower Vail Pond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Lower Yaphank Lake	Plant	Fanwort	*Cabomba caroliniana*
Lower Yaphank Lake	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Massapequa Creek - North Soule	Animal	Asian Clam	*Corbicula fluminea*
Mill Pond - Islip	Plant	Curly leafed pondweed	*Potamogeton crispus*
Mill Pond - Oyster Bay	Plant	Water chestnut	*Trapa natans*
Millers Pond	Plant	Hydrilla	*Hydrilla verticillata*
New Millpond	Plant	Hydrilla	*Hydrilla verticillata*
New Millpond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Nissiquoge River - Smithtown	Animal	Asian Clam	*Corbicula fluminea*
Nissiquoge River - Caleb Smith SP	Animal	Asian Clam	*Corbicula fluminea*
Old Ice Pond	Plant	Brittle naiad	*Najas minor*
Peconic Lake	Plant	Fanwort	*Cabomba caroliniana*
Peconic Lake	Plant	Brazilian elodea	*Egeria densa*
Peconic Lake	Plant	European frogbit	*Hydrocharis morsus-ranae*
Peconic Lake	Plant	Floating primrose willow	*Ludwigia peploides ssp. glabrescens*
Peconic Lake	Plant	Parrot feather	*Myriophyllum aquaticum*
Peconic River	Plant	Floating primrose willow	*Ludwigia peploides ssp. glabrescens*
Phillips Mill Pond	Plant	Hydrilla	*Hydrilla verticillata*
Pine Lake	Plant	Brazilian elodea	*Egeria densa*
Pine Lake	Animal	Red-eared slider turtle	*Trachemys scripta elegans*
Randall Pond	Plant	Brazilian elodea	*Egeria densa*
Ross Pond	Plant	Parrot feather	*Myriophyllum aquaticum*
Sans Souci Lake	Plant	Hydrilla	*Hydrilla verticillata*
Sans Souci Lake	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Southards Pond	Plant	Fanwort	*Cabomba caroliniana*
Swan Pond	Plant	Fanwort	*Cabomba caroliniana*
Swan Pond	Plant	Water chestnut	*Trapa natans*

Waterbody	Kingdom	Common name	Scientific name
Swan Pond	**Plant**	**Hydrilla**	***Hydrilla verticillata***
Sweezy Pond	Plant	Fanwort	*Cabomba caroliniana*
Tarkill Pond	Animal	Chinese mystery snail	*Cipangopaludina chinensis*
Trout Pond	Plant	Fanwort	*Cabomba caroliniana*
Upper Lake	Plant	Fanwort	*Cabomba caroliniana*
Upper Vail Pond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Upper Yaphank Lake	Plant	Fanwort	*Cabomba caroliniana*
Vail Pond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
Webster Pond	Plant	Fanwort	*Cabomba caroliniana*
Webster Pond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
West Brook Pond	Plant	Fanwort	*Cabomba caroliniana*
West Brook Pond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*
West Lake	Plant	Fanwort	*Cabomba caroliniana*
Wildwood Lake	Plant	Fanwort	*Cabomba caroliniana*
Willow Pond	Plant	Variable watermilfoil	*Myriophyllum heterophyllum*

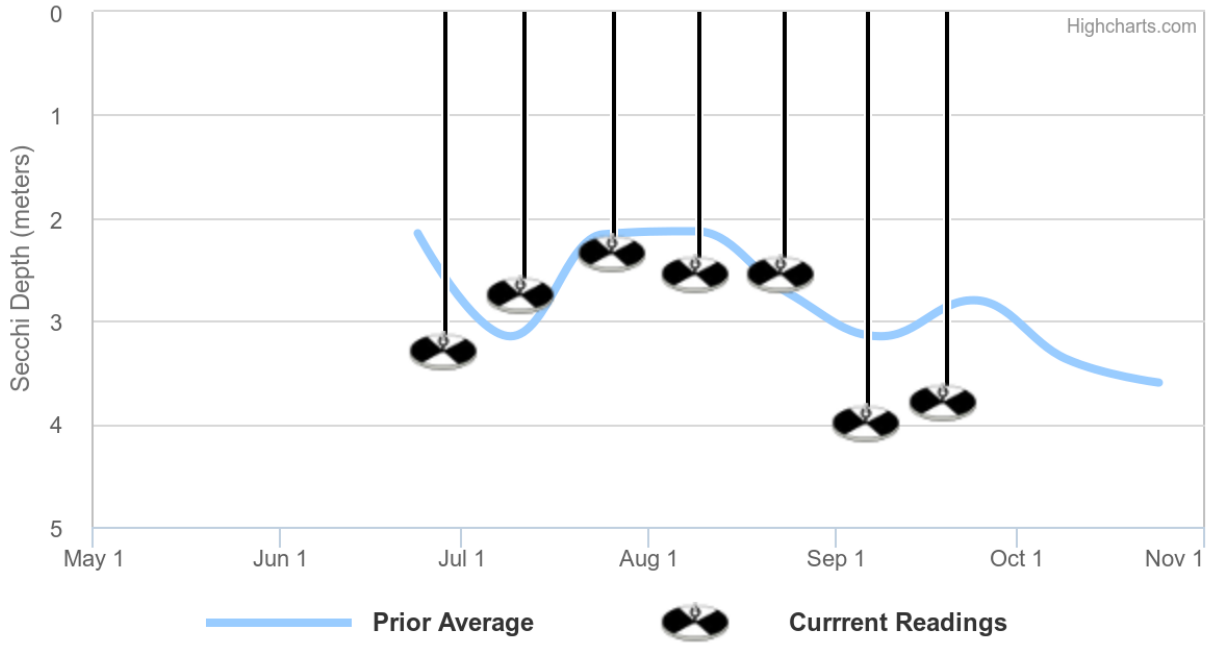
Appendix F: Current Year vs. Prior Averages for Little Long Pond

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 2006 to 2014.

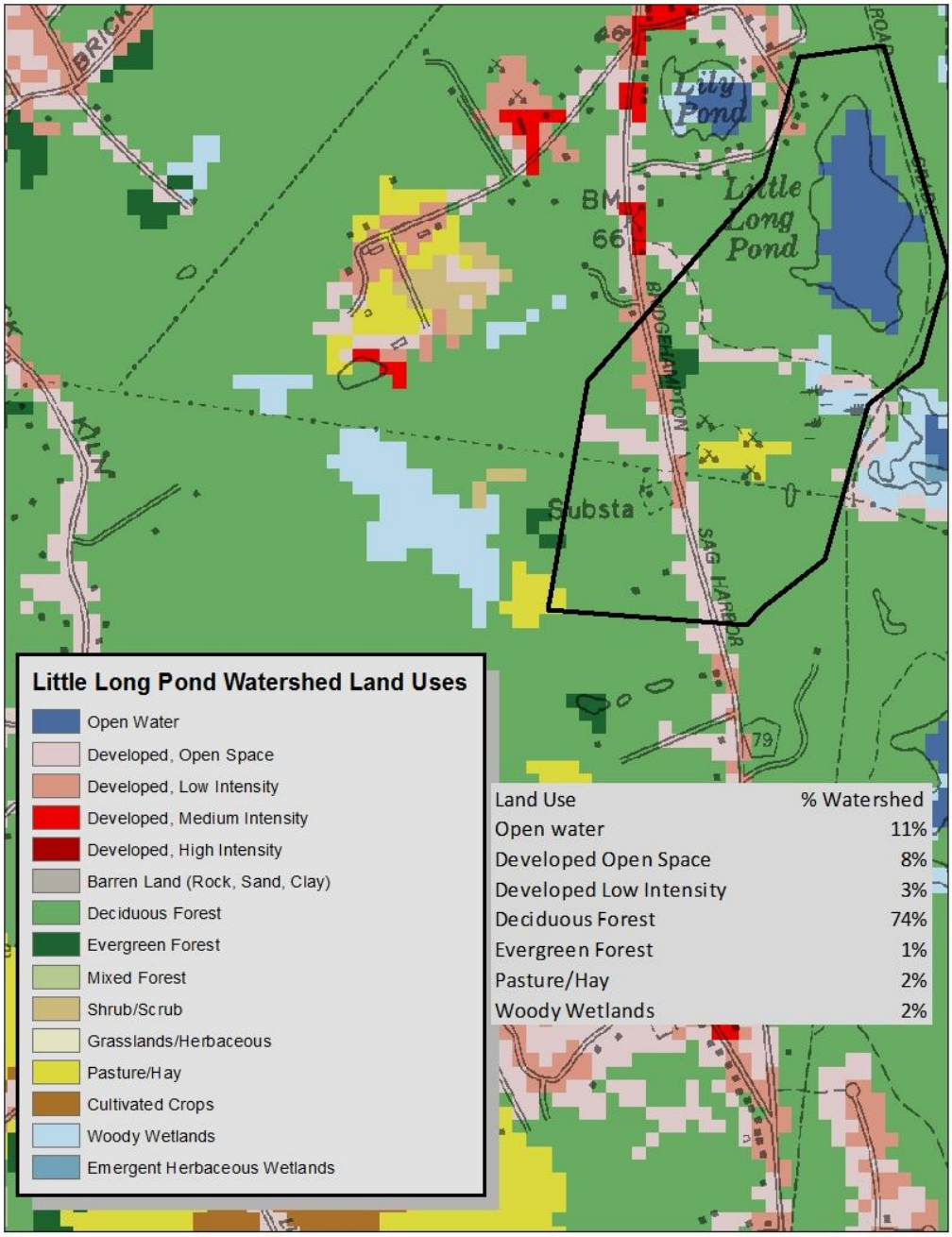
Current Year Secchi Readings vs. Prior Average



This year's session Secchi readings are tending to be higher than normal when compared to the average of readings collected from 2006 to 2014

Appendix G: Watershed and Land Use Map for Little Long Pond

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.



Land Use	% Watershed
Open water	11%
Developed Open Space	8%
Developed Low Intensity	3%
Deciduous Forest	74%
Evergreen Forest	1%
Pasture/Hay	2%
Woody Wetlands	2%