



# CANDLEWOOD LAKE AUTHORITY

P.O. BOX 37 • SHERMAN, CONNECTICUT 06784-0037 • (860) 354-6928 • FAX (860) 350-5611

## Minutes of Regular Meeting September 9, 2015

Attending:

P. Schaer	Sherman
G. Linkletter	Sherman
D. Rosemark	Danbury
C. Robinson	Danbury
E. Siergiej	Danbury
W. Lohan	Brookfield
B. Brown	Brookfield
J. Murphy	Brookfield
M. Toussaint	New Milford
J. Keating	New Fairfield

Absent:

H. Berger	Sherman
B. Kemble	New Fairfield
J. Hodge	New Fairfield
P. Eng	New Milford
J. Wodarski	New Milford

L. Marsicano, CLA Executive Director  
 F. Frattini, CLA Administrative Coordinator  
 M. Howarth, CLA Public Education Director  
 D. Vane, CLAMP Chief of Marine Enforcement  
 R. Spielman, CLAMP Deputy Chief of Marine Enforcement

Recorder: M Toussaint

Guests: None

Phyllis Schaer, Chairman, called the regular meeting of the Candlewood Lake Authority to order at 7:33 P.M. at Brookfield Town Hall, Brookfield, CT. She welcomed all.

**Secretary's Report:** In the absence of the Secretary, Frances Frattini noted that there was one addition to the minutes of the July 8, 2015 regular meeting. John Hodge requested the addition under the Treasurer's Report at the end of the first paragraph to add: "that the RFP for the new auditor include a requirement that the auditors have a background in municipal auditing." There was no objection to this addition. *Mark Toussaint made a motion to accept the minutes of the July 8, 2015 regular meeting with the above addition, seconded by George Linkletter and voted with all in favor. Minutes have been accepted as amended.*

Mrs. Frattini advised that the location of the November 4, 2015 CLA Regular monthly meeting will be at Mallory Town Hall, in Sherman as there was no room available in the Brookfield Town Hall for that meeting. The Executive Committee is scheduled to meet prior to that meeting.

**Chairman's Report:** Mrs. Schaer noted that there will be a Memorial Service for Lynn Rhodes Mayer (Harold's wife) on September 19, 2015 at the Jewish Community Center in

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Sherman from Noon to 4PM – it will be informal and if interested in attending please RSVP to Mrs. Schaer.

Mrs. Schaer reported that the auditor search has met with the concerns of John Hodge as the new auditor selected is Sandra Wellwood LLC who presently audits the Town of Sherman; the negotiated rate for the audit is fifty five hundred (\$5,500.00) dollars, which is within the budget amount.

She advised that she and Larry Marsicano had provided a tour of the lake to the new President of WESCONN, Jack Clark, Dean Missy Alexander and VP of Community Relations, Paul Steinmetz. They discussed plans and the continued supportive relationship between the CLA and the University.

The CLA summer Intern Sophia Licht has earned her Girl Scout Gold Badge, she had been monitoring the Zebra Mussel Hotels.

The Authority will be supporting the celebration of the opening of Brookfield's Mattigan Town Park on Saturday, September 26<sup>th</sup> –pontoon boats are needed for tours from 2-5PM.

Committee Chairs need to think about the 2016-17 budget, more from the Treasurer. She reported that she has been researching some lower costs for fuel either discounted at a Marina or at the contract price of a member Town.

She had attended the Law Enforcement In-Service Meeting and enjoyed interacting with the members of the Lake Patrol. She looks forward to developing a closer working relationship with the Patrol. The big issue is that the patrol Boat McKee II has been taken out of service – problems too costly to repair making replacement necessary, the Patrol and Public Safety Committee have been working on specs for a new vessel.

She and Mr. Marsicano attended the August Sherman Board of Selectmen's meeting to discuss the Blue Green Algae at the Town Beach. On September 26<sup>th</sup>, Sherman will be having a community Health of the Lake Forum. Scott Randall with file with FERC relative to a waiver of the buffer at Causeway Marina. Compliments to all on the Dragon Boat Race, it was a great event.

**Vice Chairman's Report:** Mark Toussaint, Vice Chairman, had nothing to report. But did compliment all on the Dragon Boat Race noting that the enthusiasm and participation levels were up this year – Kudos, a great job.

**Treasurer's Report:** Bill Lohan, Treasurer, reported that his report covers July and August noting that 70% receipts have been received – Brookfield and Sherman have paid in full, New Milford and New Fairfield have paid what was in their budgets and Danbury has paid the first quarter. He noted that the \$50,000 received from FirstLight is included in this total. Expenditures are in good shape with Administration 24%, Equipment/Facilities 24% Public Safety 24% Public Awareness 43% Watershed Management 21% with an overall of 27% to August 31<sup>st</sup>. He noted that on Page 5 the Grants are the Balance of the Grants received last fiscal year as of June 30<sup>th</sup> that still have expenditures against them. Also on that page are the Restricted Amounts which are subject to change based on the Annual Audit. *Mr. Lohan moved that the Treasurer's Report of Income and Expenses for the months ended July 31 and August 31, 2015 be approved as presented, seconded by Dan Rosemark and voted with all in favor. Motion passed and the Treasurer's Report of Income and Expenses for the months ended July 31 and August 31, 2015 has been approved and filed for audit.*

Mrs. Schaer commented that in the new budget proposal there should be more funding for the testing of Blue Green Algae.

Mrs. Schaer noted that at the suggestion of the First Selectman of Brookfield formulating the proposed budget should begin earlier and have the preliminary numbers in October. Mr. Lohan advised that by September 17<sup>th</sup> worksheets will be sent to the Committee Chairmen, these should be returned to the office by September 23<sup>rd</sup> and the Finance Committee will meet to

review on September 30<sup>th</sup> and it will be discussed at the October 14<sup>th</sup> CLA meeting. This will be a preliminary look, it should include new items, programs any anticipated increases and explanations and documentation. Salaries, Fringe Benefits and Payroll taxes need not be included. Detailed line item rationale, look at items that may go over and areas where money can be saved. The 2016-2017-budget proposal will be finalized at the December meeting.

**Executive Director:** Mr. Marsicano report is attached to these minutes. He gave a power point presentation of his report on the Blue Green Algae, Secchi Disk on-line site, beach closings, Phosphorus and nutrients in the water. He noted that the State has renewed the AIS Grant Program for another year and advised if you see Senator Clark Chapin – Thank him.

**Public Safety/CLAMP** Chief Doug Vane reported on activity of the lake Patrol noting that there has been quite a rise in noise complaints over last year especially at Chicken Rock. Sgt. Williams had met with the States Attorney to address this issue and an Infraction for creating a public nuisance could be issued. At this time only DEEP officers can do this and in the off-season they will investigate if the POST CLAMP officers may also be able to issue these infractions. Fines resulting from these infractions would be donated to the Lake Authority. Chief Vane advised that the patrol is being pro-active on this issue, they patrol the areas and respond to all complaints. Discussion on Noise Ordinances followed and Mrs. Schaer will research other lakes. Suggestion was that on the CLA website there should be steps to take to report these issues including video and audio. The patrol has been busy responding to over 18 incidents including a boat fire, a fall from Chicken Rock, BUI/DUI, Suspicious person, disabled vessel, and a Jet Ski operation at Danbury Town Park where a number of infractions were issued to out of state operators with no CPWO. He reported that the Fireworks went off without incident and even though held in August there was a good response. Mrs. Schaer noted that she was sorry that not more delegates did a ride along with the Patrol – next season. Under PUBLIC SAFETY, Co-Chair Jerry Murphy reported that a new patrol boat is the main focus of the committee. Mrs. Schaer reminded the specs for the new Patrol Boat needs to go to the Public Safety Committee from CLAMP and it will be reviewed by them and Equipment/Facilities before recommending to the full CLA board.

**Public Education Director:** Mark Howarth advised that his report is attached to these minutes. He noted that New Milford Village Fair Days booth in July was very successful in both education of the public on the Grass Carp, Zebra mussels as well as other lake issues and sales went well very close to last year. He thanked all the volunteers who helped at the booth. The Dragon Boat Race in August was a fun day, there were 17 teams including 4 new corporate teams, there was nice feedback from the new teams and they should be back next year. There was a new winner this year Candlewood Cavity Crusaders (Candlewood Dental) of New Fairfield – he said check out the pictures on Face book. It was a good time and thank you to all the volunteers. He read a letter he received after the News Times ran an article on the upcoming Dragon Boat Race from Mark Boughton, Mayor of the City of Danbury that read in part: “congratulations on the fundraiser’s continued success, keep up the good work.”

Mr. Howarth reported on a Facebook message regarding garbage on the island off Dike’s Point – he visited the site and took pictures noting it was a mess, a dump full of garbage. He has left a message with FirstLight and will discuss this with them regarding a plan for cleaning up the area and how to prevent future problems.

#### **Committee Reports:**

**Public Awareness:** George Linkletter, Committee Chairman, reported on an email conversation regarding an organization from Lake Zoar asking the CLA to promote their fundraising event for Leaps of Faith Waterskiing on the CLA website. Leaps of Faith is a great

organization, it helps many with disabilities with adaptive water and snow skiing. However good it is, it is not in the CLA Mission which is to protect and preserve Candlewood Lake. There are many good organizations but where do you draw the line. It was noted that they had posted to the CLA Facebook page but this would not be promoting the event as the CLA did not post it.

Discussion followed and *Mr. Linkletter made a motion that the Public Awareness Committee develop criteria to guide decisions regarding promotions on social media (i.e. website, Facebook, Twitter etc), seconded Bill Lohan and voted with all in favor. Morin carried*

Mr. Linkletter added that the committee would identify activities that occur over a year and provide a steady stream of information of those activities for the year.

**Equipment/Facilities:** Ed Siergiej reported that the last couple of years have been good and this year the Steiger, ARK II, and McKee II all have had problems, the Steiger and ARK are back but McKee II is out of service and needs to be replaced. He hopes that the engine can be salvaged and installed on a new vessel to keep the cost down. He noted that past vessel were purchased with donations and the Authority needs to decide how to fund one at this time, the CLA fully supports the patrol on the package of new vessel. Mrs. Schaer added that the patrol has done a good job and she has spoken to DEEP on patrol boat specs and that if the DEEP has a discounted price it would be available to the CLA.

**Watershed Management Committee:** In the absence of the Committee Chair, there was no report.

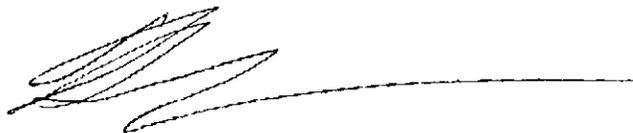
**Old Business/New Business:** None

**Any and All Business:**

With no further business to come before the Candlewood Lake Authority, *Jerry Murphy moved to adjourn, seconded by George Linkletter*

*Meeting adjourned at 9:29 P. M.*

Respectfully submitted,



Howie Berger, Secretary  
Frances Frattini, Administrative Coordinator

r/b/lm

*These minutes are not considered official until they have been approved at the next regularly scheduled meeting of the Candlewood Lake Authority.*



# CANDLEWOOD LAKE AUTHORITY

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**Executive Director's Report**  
**September 3, 2015**  
**Larry Marsicano**

*The following report summarizes Executive Director activities from August 6, 2015 to September 3, 2015*

**Beach Closings**

In last month's report you were advised that water samples were collected on July 29<sup>th</sup> from the five town beaches for analyses of cyanobacteria cell and microcystin concentrations, that we had created a system of collecting Secchi transparency data daily or nearly daily from the beaches and elsewhere, and that we were working closely with the local Health Directors in preparation of possible bloom conditions. Part of those preparations were the training of town lifeguards in identification blooms and who to call if bloom conditions occurred at the beach.

Date	Site	Cyanobacteria (Cells / mL)	Microcystin (µg / L)
July 29, 2015	Danbury Beach	17,000	<0.15
	Brookfield Beach	28,000	<0.15
	New Fairfield Beach	17,000	<0.15
	New Milford Beach	35,000	<0.15
	Sherman Beach	74,000	<0.15
August 14, 2015	Sherman Beach	9,600	1.67
August 18, 2015	Danbury Beach	13,000	<0.15
	Brookfield Beach	35,000	<0.15
	New Fairfield Beach	47,000	<0.15
	New Milford Beach	52,000	<0.15
	Sherman Beach	132,000	<0.15
August 25, 2015	Danbury Beach	19,000	<0.15
	Brookfield Beach	45,000	<0.15
	New Fairfield Beach	29,000	<0.15
	New Milford Beach	23,000	<0.15
	Sherman Beach	7,500	<0.15

Results of analyses of cyanobacteria cell counts and microcystin concentrations in samples collected from town beach waters in late July and August.

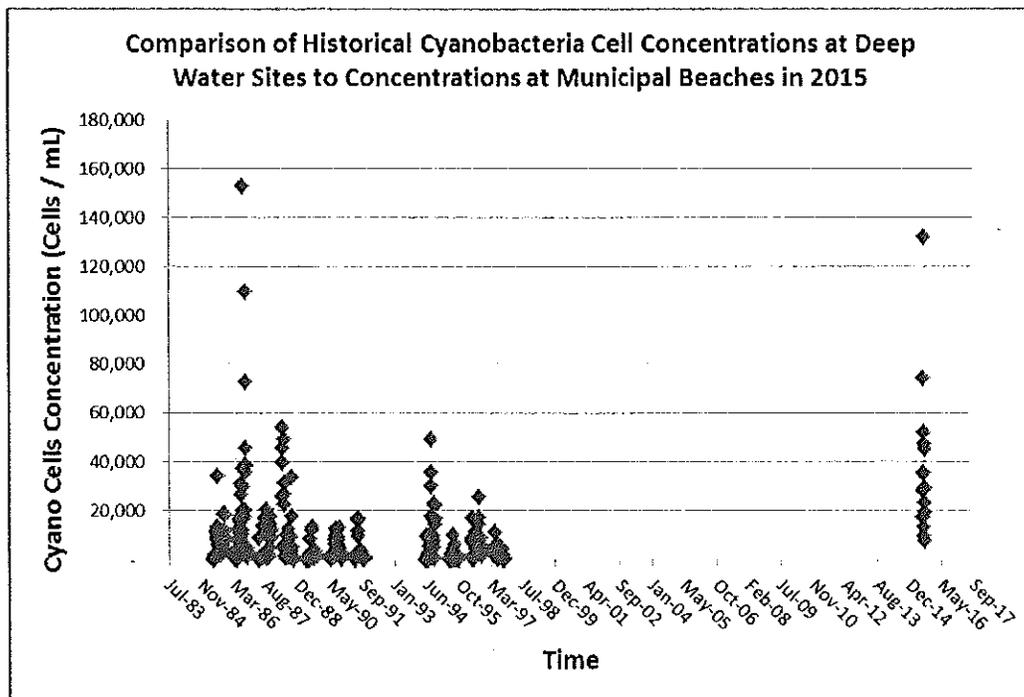
The CT DPH and CT DEEP guidance document uses a range of 20,000 to 100,000 cyanobacteria cells per mL to characterize a Category 2 conditions and the low end of a bloom.

Cell counts above 100,000 cells/mL are considered characteristic of Category 3 when public beaches should be closed. 15 µg/L of microcystin is the recommended threshold for acceptable level of microcystin.

On Friday, August 14<sup>th</sup> we were contacted by John Wren, the Sherman Park and Recreation Director, who had been notified by his lifeguards about a possible bloom. Both Tim Simpkins, who is the Sherman and New Fairfield Health Director, and I visited the site and concurred that there were bloom conditions. I also took water samples from Sherman and delivered them to Northeast Labs in Berlin, CT for analyses.

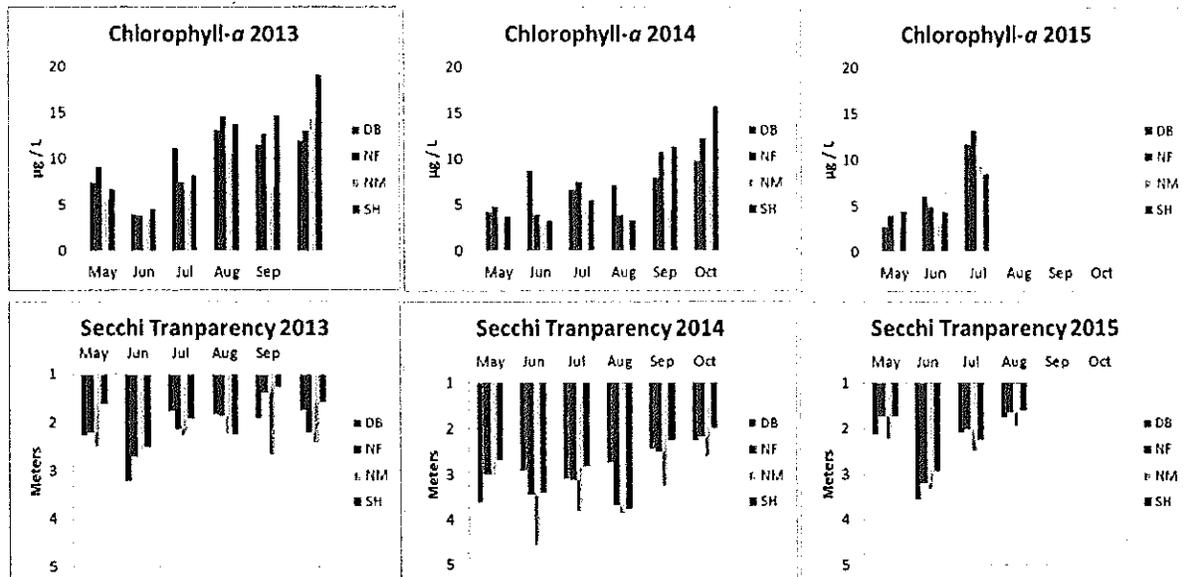
On Monday, August 17<sup>th</sup> I was contacted by Mr. Simpkins who reported that he closed the New Fairfield Town Beach. I visited other town beaches and notified the Brookfield Heath Director's office that bloom conditions existed at their beach. They closed the beach that day. On August 18<sup>th</sup> and 25<sup>th</sup> samples were collected from all town beaches and brought to the lab for analyses. Results of all analyses are provided in the table above. Currently no beach are officially closed due to cyanobacteria blooms. We presented much of this information at the Sherman's Board of Selectmen meeting in the evening of Thursday, August 27<sup>th</sup>.

Last month I also reported that I've been examining historical cyanobacteria cell levels. Below shows historical levels from deep water monitoring sites and the concentrations recently observed at the beaches.



**Water Quality**

In addition to monitoring conditions at beaches, we continue to monitor lake conditions at five deep water sites as has been done now for over 30 years. Some of the water quality parameters we monitor are tracking similar to those we observed in 2013 (see below).



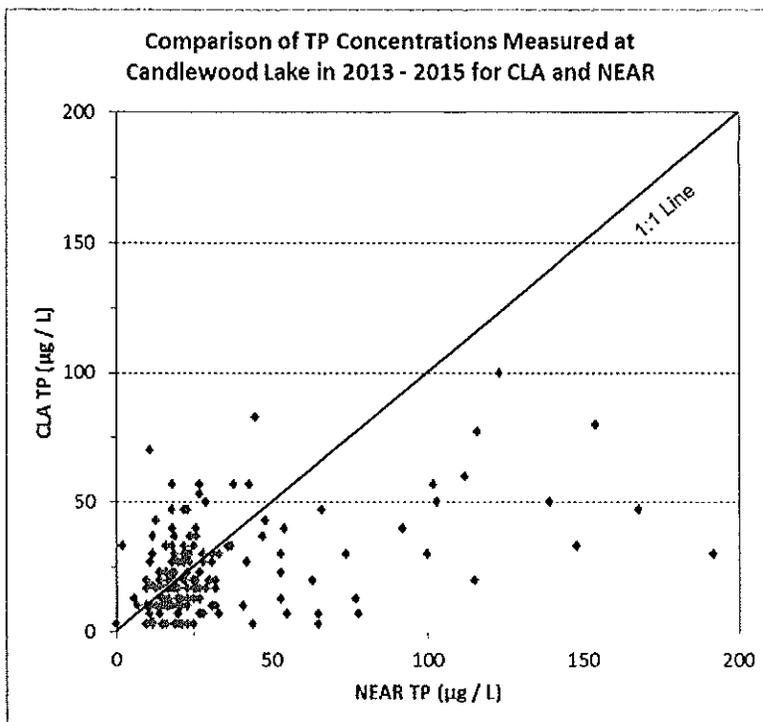
Comparisons of chlorophyll-a concentrations and Secchi transparencies in 2013, 2014 & 2015.

On August 15<sup>th</sup> Phyllis and I attended the presentation by Dr. George Knoecklein on behalf of FirstLight held in the New Fairfield Town Hall. Much of Dr. Knoecklein's efforts over the last three years were focused on determining how nutrients are entering the lake. His conclusions included:

- Brook phosphorus load was low
- Rocky River phosphorus load was about 4X the brooks
- Direct flow phosphorus load was 10X the brook input
- Internal phosphorus loading was 10X the brook input
- Direct nitrate load was extremely high
- Water clarity in 2015 has been OK but resembles 2013 which culminated in a bloom, not 2014 when clarity was excellent for the whole season

Dr. Knoecklein also provided much of his data including phosphorus concentrations. I compared phosphorus concentrations he reported on to those from samples we have collected in the same time period. In some but not all instances, water sample collections were done on the same day or within several days of each other. An analysis of that comparison suggests that results of lower level phosphorus concentrations (i.e. those found near the surface) are quite similar but higher concentrations (i.e. those found at the bottom of the water column) tended to be a bit more different with Dr. Knoecklein's data reflecting higher concentrations (see below).

I have discussed the differences with our lab and we have designed some tests they will do with our August samples to see why these differences may be occurring. It is important to reiterate, however, that the surface water phosphorus concentrations determined by the two separate labs appear very similar.



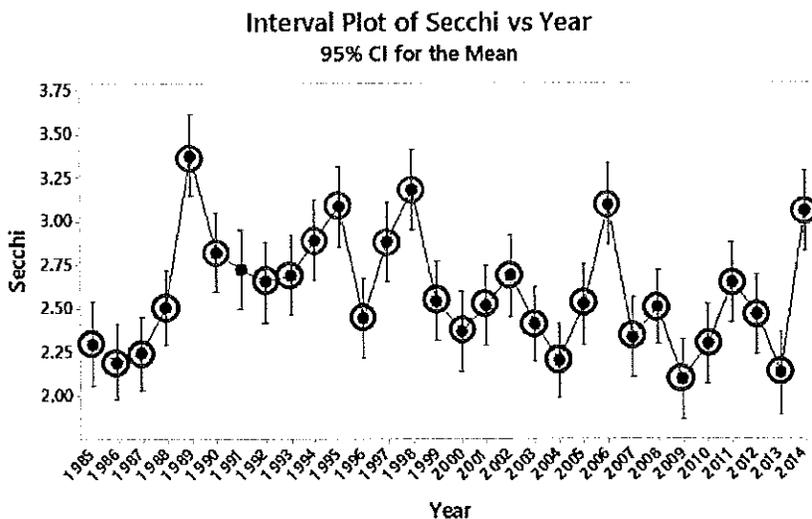
Comparison of paired total phosphorus levels in water samples from Candlewood Lake collected by Northeast Aquatic Research (NEAR) and Candlewood Lake Authority between 2013 and 2015. Each point represents the total phosphorus concentrations from the samples collected by both NEAR and CLA monthly from May thru October from 2013 thru 2015. A 1:1 line was drawn in to show where points should fall if all concentrations from paired / corresponding samples were identical. Note that many of the points particularly those below 50 µg/L are very close to the 1:1 line. Differences tended to occur in samples with higher concentrations.

In last month's report I discussed working with Dr. Josie Hamer, Chair of the WCSU Math Department on some additional statistical analyses of the now 30 year water quality dataset with focus on years 2013 and 2014. Recall that the report CLA released in 2013 included data from 1985 thru 2012. Data from 2013 and 2014 were added to the statistical analyses of trends.

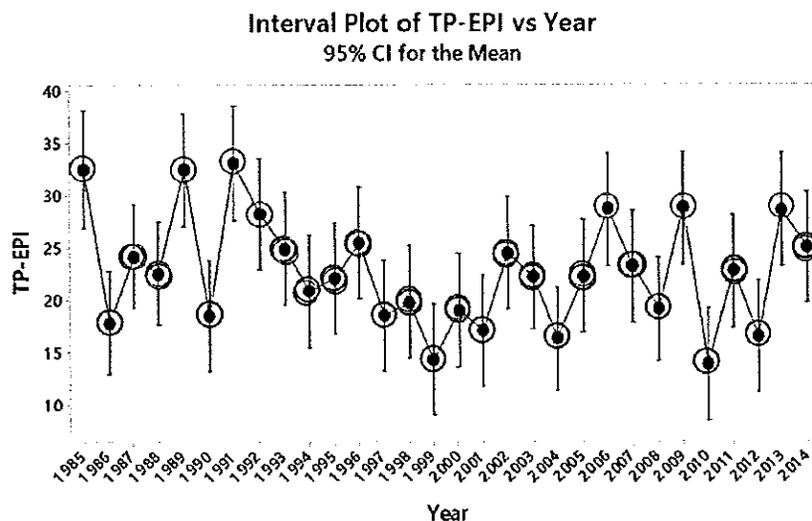
As was anticipated, conditions based on seasonal means in 2013 and 2014 were not statistically different from conditions in many other years over the 30 year period (see chart below). Conditions in 2014 were similar to those in other years when water quality was characterized as "better" and 2013 conditions were similar to many other years when water quality was "not as good." No unidirectional trend is evident and is particularly reinforced by the last two years which reflected some of the best conditions (2014) and worst conditions (2013 culminating with the lakewide bloom).

There is some thought that the deep drawdowns are largely responsible for the poorer water quality conditions. The poorer conditions in 2013 followed a deep winter drawdown as are conditions this season while the much better conditions observed in 2014 followed the alternate year drawdown. However this pattern is not consistently observed throughout the 30 year span of the monitoring program which coincides with span of the biennial deep drawdown program. For example, there are statistically "better" conditions following deep drawdown years (e.g. 1989, 1995, 1997) and statistically poorer conditions following alternate year winter drawdowns (e.g. 1986, 1996, 2004). This should not be misconstrued to mean that winter drawdowns can't contribute to the phosphorus load in the lake and have other adverse

impacts. They can and probably do. However, they do not seem to be driving the differences in conditions observed year to year.



The pooled standard deviation is used to calculate the intervals.



The pooled standard deviation is used to calculate the intervals.

Statistical analyses using ANOVA of mean Secchi transparency and epilimnetic total phosphorus trends in Candlewood Lake from 1985 thru 2014.

Based on the analyses, annual means were clustered into groupings of annual means that were not statistically different from each other. For example, in the Interval Plan of Secchi vs Year, annual means within a green circle were not statistically different from each other, likewise for those means in red circles.

In a number of instances annual means could be clustered in more than one group. For example, some means in Interval Plot of TP-EPI vs Year are circled by both a red and green circle meaning they were not different from means circled exclusively by red or green circles.

**Discussions with Praxair**

This summer Phyllis and I have both met or held conference calls with Praxair regarding the proposed research using CO2 to prevent live zebra mussel veligers from entering the Housatonic River from Laurel Lake. The most recent discussion was held on Tuesday, August 11<sup>th</sup>. Following that conferece call we received from Praxair notification of formal support of the project and their level of commitment. This resulted in our understanding of the difference

of their commitment vs. their actual costs – approximately \$22,500 dollar difference. Since that time we have reach out to other stakeholders and have currently \$8,500 in support pledged including \$2,500 from Friends of the Lake (on Lillinonah) and \$2,500 from the Lake Zoar Authority. Phyllis and I are scheduled to meet with WCSU Dean Missy Alexander to discuss grant opportunities and I have a call into CT DEEP Bureau Chief Bill Hyatt to discuss ways of making up the difference in funds thereby allowing us to conduct the research next summer.

#### ***State Announces 2015 AIS Grant Program***

On Wednesday, September 3<sup>rd</sup> we received notification from the CT DEEP that they will be accepting proposals for funding for Aquatic Invasive Species management. This is the same program that last year CLA successfully applied to for funding for the triploid grass carp stocking done this past late June. The program was created in 2014 following some discussions between State Sen. Clark Chapin, Tom McGowan of the Lake Waramaug Task Force, and myself about the need for help at the State level for AIS. We approached Sen. Chapin prior to the beginning of last legislative session regarding funding the program for 2015. Sen. Chapin and his colleagues were successful.

#### ***WCSU Interactions***

In early August I was contacted by Paul Steinmetz who is the WCSU Director of University and Community Relations and we began planning a tour of the lake and conversation with the new University President John Clark. On August 17<sup>th</sup> Phyllis and Len Schaer provided that boat tour for Mr. Steinmetz, President Clark, Missy Alexander who is the Dean of Arts and Sciences, Dr. Mitch Wagener from the Biology and Environmental Science Department and me. The tour and discussions were excellent and President Clark is quite interested in furthering the relationship between WCSU and CLA.

Dr. Ed Wong, Dr. Mitch Wagener and myself met and were interviewed by Mr. Bob Taylor of WCSU University Relations on August 25<sup>th</sup> who will soon be releasing articles regarding the WCSU / CLA collaboration on the University's website and elsewhere. Topics/research discussed in the interview included milfoil weevils, abiotic factors involved in successful management of milfoil with deep drawdowns, zebra mussels, blue-green algae, and triploid grass carp tracking.

We have continued to help facilitate research of Dr. Ed Wong at WCSU by collecting cyanobacteria samples which he is analyzing for the toxin producing genes.

#### ***Noise Issues***

This summer has continued to provide numerous complaints by lakeside homeowners regarding noise and disturbances. We have continued to maintain a dialog with law enforcement, some of the town leaders, and lake community residents regarding this issue.

In mid August I received correspondence from our CT DEEP Supervising Sergeant Keith Williams regarding his initiative to bring this issue to State Attorney Stephen Sedensky's Office. Sgt.

Williams reported on his efforts to First Selectmen Susan Chapman of New Fairfield and Clay Cope of Sherman on August 27<sup>th</sup>. I also attended.

As a resolution to the noise concerns, State Attorney Sedensky determined that the best course of action would be to issue infractions for Creating a Public Disturbance (53a-181a) especially between the hours of 10 PM and 8 AM. Under the definition: (a) A person is guilty of creating a public disturbance when, with intent to cause inconvenience, annoyance or alarm, or recklessly creating a risk thereof, he (1) engages in fighting or in violent, tumultuous or threatening behavior; or (2) annoys or interferes with another person by offensive conduct; or (3) makes unreasonable noise. The fine carries a \$103.00 penalty. Because the definition involves "intent" Attorney Sedensky related any enforcement action that would occur during the daylight hours would require a signed sworn written statement from the complainant prior to the infraction being issued and /or video or pictures if possible. The decision on the time frame was determined from what a reasonable person would believe to be normal quite hours. Also any enforcement action would be at the discretion of the Officer. Education and discussions with the boating community have proven to be successful and shall continue and be the initial course of action. Any fines paid would be donated to the CLA from the victim's compensation fund.

#### ***Brookfield's Cadigan Park Grand Opening***

On Saturday, September 26<sup>th</sup> Brookfield will be celebrating its Grant Opening of the revitalized Cadigan Park. We've been asked if we can help develop a small fleet of pontoon boats and volunteer captains to provide rides to those attending the event. Several of our marinas have provided pontoon boats and several of our delegates from Brookfield have volunteered their pontoon boat and services. We are still looking for several more pontoon boats and captains. Please contact me if you think you can or know of someone who might be interested.

#### ***Other Upcoming Events***

Also on September 26<sup>th</sup>, we've been asked to participate and lead Sherman's Health of the Lake Forum where topics including septic walkovers, buffers, and phosphorus reduction strategies will be discussed.

On Saturday, September 12<sup>th</sup> at 4pm I am scheduled to provide a presentation entitled Candlewood Lake: History, Regional Importance, and Environmental Issues and the photography showing of Elisabeth Levy at Bethel Arts.

On Sunday, September 20<sup>th</sup> at 2pm I am scheduled to provide a presentation on Candlewood's history and environmental issues at the opening of the New Milford Historical Society's Opening of their Candlewood Lake Exhibit.



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## Executive Director's Report

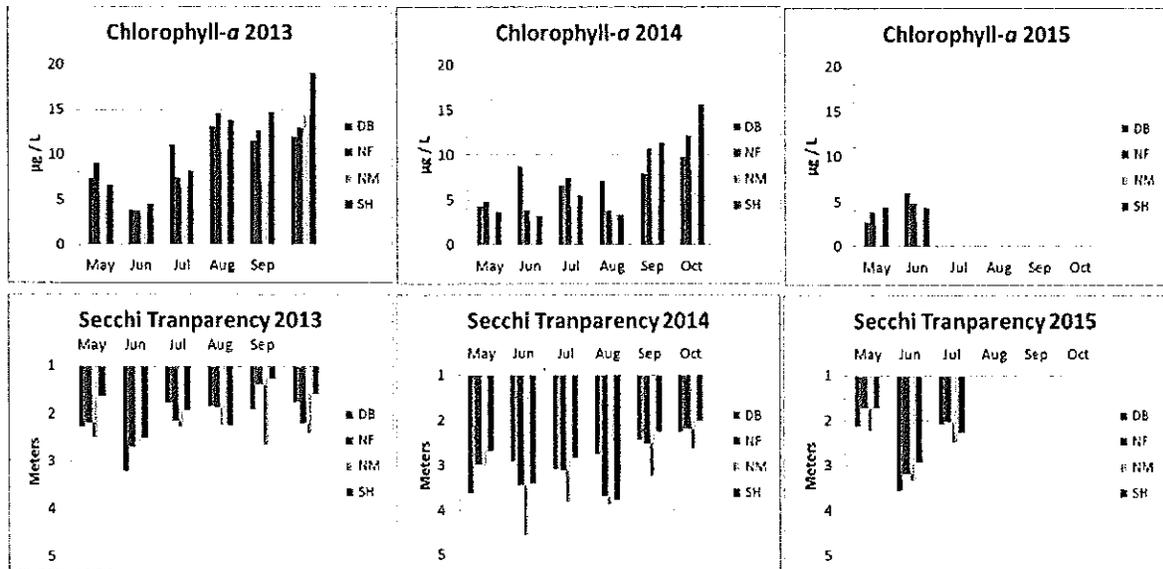
July 6, 2015

Larry Marsicano

The following report summarizes Executive Director activities July 6, 2015 to August 6, 2015.

### Water Quality

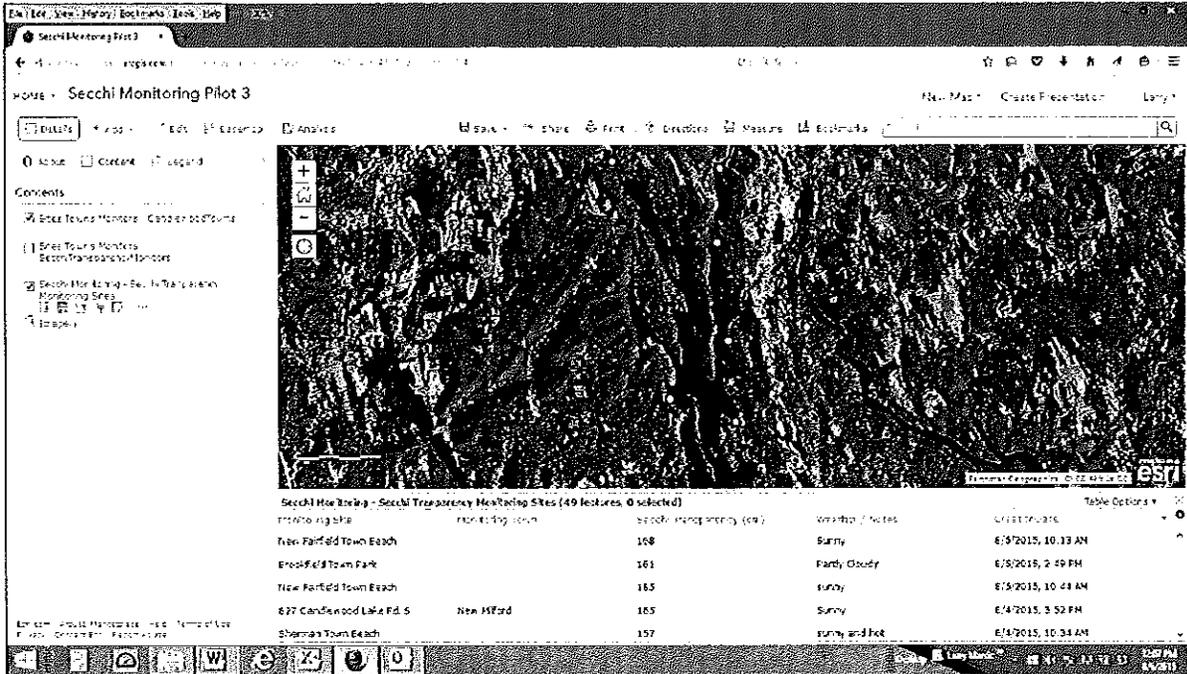
Water quality was poorer in July than it was in June based on our July 16<sup>th</sup> sampling event and we received communications of isolated cyanobacteria blooms which we investigated. A notification was sent out to our electronic distribution list regarding the potential for blooms.



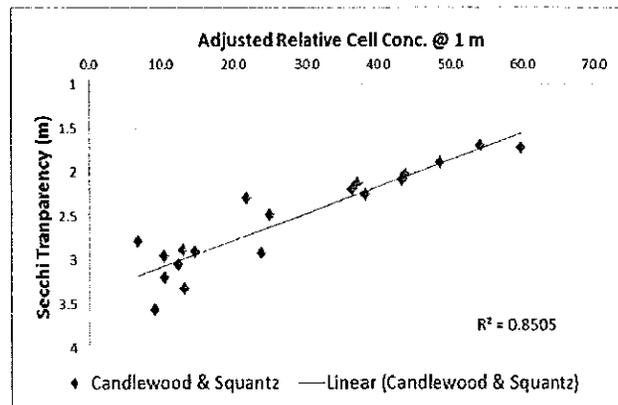
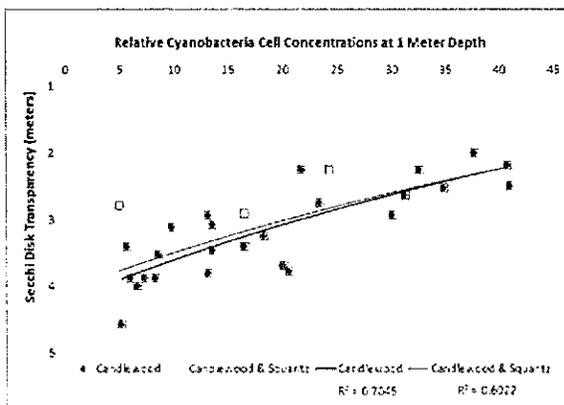
On July 29<sup>th</sup> we conducted an additional sampling event at the town beaches. Measurements were taken and water collected for analyses of cyanobacteria cell and microcystin concentrations. Results are forthcoming. We have also been working directly with several of the Director's of Health, most notably Tim Simpkins, in assessing conditions at town beaches.

From discussions with the CT DEEP, it appears that there are a number of lakes experiencing problems, some of which would not be seem to be a like candidates for blooms (e.g. Mount Tom Pond in Litchfield & Morris, CT).

Howie and I were able to successfully pilot a Secchi Disk Monitoring system where Secchi disk data is collected by beach staff at the town parks and by volunteers elsewhere, is uploaded, and made available to decision-makers like Directors of Health or Park and Recreation on a website. A demonstration will be provided at the board meeting.

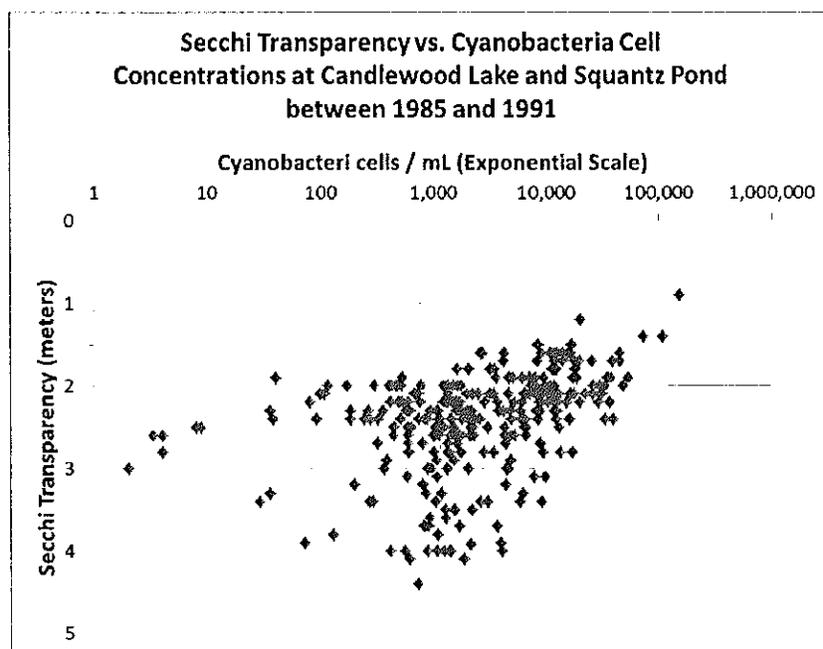


There is a good correlation between Secchi disk transparency and the relative cyanobacteria cell concentration measured with the fluorometer on our field equipment. Once we are able to establish a relationship between the relative concentrations and actual concentrations, we might be able to use Secchi disk transparency as a surrogate for cyanobacteria cell concentrations which are part of the criteria used in the CT DEEP / CT DPH guidance documents on cyanobacteria.



Several years ago we released a report on water quality trends entitled *An Assessment of Candlewood Lake Water Quality Trend* which statistically analysed trends between 1985 and 2012. Co-authors included Dr. Josie Hamer who is the Chair of the Department of Mathematics at WCSU and Dr. Peter Siver of the Botany Department at Connecticut College. Dr. Hamer and I are updating that dataset with data collected in 2013 and 2014. All three of us along with Dr. Priya Kohli, also from Connecticut College, continue to work on a manuscript for publication on more powerful statistical analyses on the data up thru 2012.

Lastly, I've been exploring historical blue-green cell concentrations from Candlewood data collected between 1985 up thru 1998. An initial observation is the variability of cell concentrations particularly in the range of Secchi transparencies of 1.5 to 2.5 m. I will continue to look and analyze these data, e.g. look at cell concentrations during specific months.



We have been invited by FirstLight to a briefing by Dr. Knoecklien on assessment of water quality at Candlewood based on recent years of study. That meeting is scheduled for Wednesday, August 15<sup>th</sup> in New Fairfield starting at 10am.

### ***Zebra Mussels***

We have made regular collections at the boat barrier in front of the aquaduct leading to the outlet structure in New Milford for analysis of zebra mussel veligers. Since the end of May, twelve samples have been analyzed and no veligers have been observed. We have benefited from the help of Samantha Doyle who is currently attending the University of New Haven, and Jim Young who is a recent graduate of the University of Delaware in this project. In addition,

Phyllis and I met with Sofia Licht of New Fairfield High School to reinstitute the zebra mussel artificial substrate program on Candlewood Lake.

***Recreational User Conflict***

There have been a number of calls regarding user conflicts on Candlewood Lake including: excessive noise around Chicken Rock; rafting in Hollywyle Cove; and wakes due to wake surfing. I have discussed these with our Chief and others and have responded to correspondence by some of the town CEOs on these matters.

***Outreach***

On July 23<sup>rd</sup> Phyllis, Jerry and I presented at the Leadership Danbury program which was held at Down the Hatch followed by a boat tour of the lake. Many of us also contributed time to Village Fair Days on July 24<sup>th</sup> and 25<sup>th</sup>. Mark should be congratulated for another very successful event.

Phyllis and I also met with Stephanie Podewell who is US Congresswoman Esty's District Director and State Rep. Dave Arconti who is Vice Chair on the State Legislature's Environment Committee. A wide range of topics were discussed.

I've had the pleasure of assisting Mark with many of his Dragon Boat practises for many of the team scheduled for after work hours and weekend. The anticipation and excitement is building!



# CANDLEWOOD LAKE AUTHORITY

P.O. BOX 37 • SHERMAN, CONNECTICUT 06784-0037 • (860) 354-6928 • FAX (860) 350-5611

**September 9, 2015**  
**Public Education**  
**Mark Howarth**

## Dragon Boat Races:

The 2015 Dragon Boat Races were a success! 17 teams competed in the 2015 event that was up two from last year. Four new teams competed this year all of them were corporate teams. They included Bethel Healthcare, Cartus, Halas Farm and Memry Corporation.

There was a lot of preparation leading up to the event. Not only a large amount of organization as usual, but three weeks of weekday evening of coaching team practices, as well as weekend morning practices. In total, we conducted nearly 25 team practices (by offering multiple practices to teams).

Mayor Murphy opened the event and welcomed the racers and teams to the park, and Ray Plue sang the National Anthem. For entertainment that day we had the UConn Taiko Drummers (their 6 year performing for us) as well as the band Perfect Timing.

Some winners from this year...

- Overall 1<sup>st</sup> Place: "Candlewood Cavity Crusaders" from Candlewood Dental
- 2<sup>nd</sup> Place: "Isle Stokers" from Candlewood Isle
- 3<sup>rd</sup> Place: "Halas Farm" from Halas Farm Market
- Lake Community Cup Champion: "Isle Stokers"
- Corporate Cup Champion: "Halas Farm"
- Fired Up Award Champion: Independent Realty Group
  - o First Runner Up: The Dental Crew (Dental Associates)
  - o Second Runner Up: Halas Farm
- Ultimate Drummer Award Champion: BAD Memry (Memry Corporation)

The weather cooperated beautifully and the teams had a good time. We received a number of compliments from teams following the event, especially from a number of new teams who got to experience dragon boat racing for the first time this year at our event.

The following are a few photos from the day.



### **Beach Closings Newsletter:**

We sent out an electronic newsletter to notify the residents that three of the town beaches were closed due to Blue-Green Algae blooms being visually detected and that the CLA was taking water samples from all five town beaches to the lab for further analysis.

### **Summer Wrap Up eNewsletter:**

We are working on a newsletter to go out shortly. It is focusing on what happened this summer and includes the Clean Up, Project CLEAR, the Dragon Boat Races, Algae Blooms and the grants we rec'd from FirstLight. Separately, we will do an extensive newsletter about the grass carp stocking, covering what took place, what to expect from the carp and answers to many commonly asked questions.



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**August 12, 2015  
Public Education  
Mark Howarth**

## **Dragon Boat Races:**

We've been working hard on the Dragon Boat Races which are coming up on Sat the 15<sup>th</sup>.

We've been running practices since just after Village Fair Days, up to two every weekday night and three each weekend morning.

## **Village Fair Days:**

We had another successful Village Fair Days at the end of July in New Milford. Over the two day event we met with hundreds of lake users, engaging them in conversation about lake issues. Many who stopped by our booth to learn about what we do wanted to talk about the recent grass carp stocking.

We also sold a lot of Candlewood Lake merchandise at the event.

## **Algae Newsletter:**

We sent out an electronic newsletter to help inform our readers about algae blooms, the different types, what to be aware of and what to do if they see them.