SINGLETARY SUN

THE VOICE OF THE LAKE SINGLETARY WATERSHED ASSOCIATION

"Dedicated to the Preservation and Protection of Lake Singletary and its Watershed"

PRESIDENT'S MESSAGE

It's that time of year again, when we're greeted with frosty mornings and quickly fading daylight hours. Our course is plotted directly towards another winter. Looking astern, the warm glow of the past summer has faded over the horizon. All that remains of summer are the fond memories of good times on and around the water with friends and family, and maybe the winterization and storage bill for your boat. I can only hope everyone had as much fun sharing and enjoying the lake as we did.

The opportunities afforded by our lake, especially in the warm season, seem to draw us together with Lake Singletary as our conduit and common bond. Many people, new to our lake community, tell me how many friends they've made in their first season on the water. I usually relate my story, that if you lived in a subdivision with 150 houses, you would be lucky to make friends with your few immediate neighbors. In contrast, the 150 families that live here are all connected by the water and the social and recreational activities it provides. Since my wife and I moved here, many of our closest friendships have been formed on and around the lake. The Lake Singletary Watershed Association also provides venues for member socialization through events like The Spring Wing Ding, Earth Day Cleanup, The Fourth of July Boat Parade and The Annual Rafting Party, all of which are run without cost to the association by our innovative social committee.

This past summer we successfully treated the lake for an algae bloom, Eurasian water milfoil and various nuisance weeds. Unfortunately, we were unable to treat for Cabomba Caroliniana, common name Fanwort, due to the State's inability to approve the use of the new herbicide needed, Clipper, in time for treatment. Fanwort is currently the most prolific non-native invasive weed species in our lake. The good news is that Clipper will be approved for use next season. The bad news is we're estimating a treatment of over 40 acres at a projected cost of $650 to $750 an acre. That's in addition to our normal weed and algae treatments. In an attempt to offset some of the association's cost for maintaining our great resource we have formed a new committee to explore possible municipal funding sources. This year it's more important than ever that everyone attend their annual town meetings to support the funding initiatives the LSWA will be proposing.

The inevitable coming of the winter is not all doom and gloom, as it offers many unique possibilities for outdoor activities, just with more clothes on. With the typical winter freeze, traversing the lake on an ATV or snowmobile, cross country skiing, skating, ice fishing, or just walking across the ice on a sunny day are experiences only the winter can offer. So like it or not we just have to make the best of this winter and look ahead to next summer.

So as I sadly watch the sun fade, the leaves fall, the temperature dip and the last of the boats pulled from the lake as the water recedes from the drawdown, this year I'm not going to let the winter doldrums sink my spirits. Not just buoyed by memories of this past great summer, but actually making an effort to embrace what winter has to offer.

How many days till next spring?

Paul Kawolis, LSWA President

CALENDAR OF EVENTS

EVENT	DATE	TIME/ PLACE
Earth Day Clean-Up	Saturday, April 26 2014	8:00 am Meet at the boat ramp
Spring Wing Ding	Saturday, May 10 2014	7:00 pm Dudley Gendron
Fourth of July Boat Parade	Friday, July 4, 2014	8:00 pm Meet at Southwest end of lake
Rafting Party	Saturday August 2, 2014 Rain date August 9th	3:00 pm Rock Island
Annual Membership Meeting	Wednesday August 27th	7 pm St. Marks Church Basement

E-MAIL ADDRESS REQUEST

Are you on the e-mail list? We regularly communicate via email for event reminders, drawdown timing, weed treatment timing and other useful news. Your e-mail address will not be shared and will only be used by the LSWA for membership communications. Please send an e-mail to LSWABOD@gmail.com with Add Me in the subject and get all the latest news!

MEMBERSHIP HONOR ROLL 2013

Paul & Lee Adams
Roy & Marilyn Ahlen
Gangadhar Patil & Brandy Barnes
Bill & Charlotte Bedord
Margareta Berg
Ken & Kathleen Bergeron
Carl & Penny Bergeson
John Bergin
Ed Bettke
Paul & Joan Bjork
Virginia Bliss
Mark Briggs
Brad Bumpus
John & Stacy Burl
Diane Cahill
Michael &Rie Poirier Campbell
Thomas Capistron
Linda Carlson
Lee Carman
Michael Catino
John & Cynthia Charest
David Chase *
David, Sherry & Tom Chevalier
Robert & Judy Clark
Robert & Jeff Clark
Deb Cox
James & Amy Craft
John & Emily Crane *
Helen Largess-Crewe
Dan & Mary Daly
Alan & Dorothy Dearnley
Joe & Kelli Deliso
Joyce De Rosa
John & Rose Direnzo
Stephen & Theresa Dunne
Mike & Judy Dunne
John & Jeanne Esler
Robert & Bridget Fink
Diane Fulten
Barbara & Julio Fusaro
Dana & Diane Giampa
Michael & JoAnne Goodfriend
Everett & Janet Grahn
Nancy Grant
Travis & Sharie Grant
Karen Green
John & Diane Greenlaw
Walter & Joan Hagstrom
Tony & Elaine Halpin
Katherine Hamelin
Janet Hammarstrom
Tom & Marie Haynes
David & Deborah Hebert
Jon & Donna Heslin
Kathleen & David Holt
Donal & Dina Jamieson
Fred & Nancy Jarvis
Pam Jernberg
Gordon Johnson
Greg & Nancy Johnson
Jeff & Suzanne Johnson
Russell & Mary Johnson
Wayne & Ann Junnila
Jennifer Kapenas
Paul & Mona Kawolis
Paul Larson
Paul & Kathy Laverdiere
James & Pamela Lavoie
Paul & Diane Lavoie
William & Patricia Lawton*
Kenneth & Karen LeBlanc
Michael & Candace LeBlanc
Bob LeClaire
Jim & Ruby LeClaire
Charles & Lynn Lidz
Axel Linder +
Kenny Linder
Bob & Laura MacKinnon*
Alan & Ellan Marcell
Paul & Vivian Marcell
David & Pam Marois
Normand & Gloria Marois
Lynda Martin & Craig Warneke
Garth Maynard
John Maynard
Kevin McCarthy
Patricia McCarthy
Theresa McDermott
Dan & Kyrenya McNamara
Garry & Peggy Melia
Garry T& Karen Melia
Brian & Laurie Mellen
Wayne Mong
Stephen Moss
Dennis & Nancy Mulhane
Bill & Barbara Nartowt
Richard & Karen Norlin
Suzanne Nydam
Bernice O'Gassian
Lynne Olsen
David & Ruth Parker
Robert & Ginny Picking
Ken & Karen Rapp
Frank G. Rourke
Alan Rudge
David Rudge
Ronald & Janet Rudge
Richard & Carol Rudman
Michael & Rosemary Salem
Donald Salerno & Marna Hasz
Lucille & Jack Sampson
Jacqueline Shakar & Debra Pinto
Mark & Beth Shirman
John Silverberg
Ronald Stead
Robert Strong & Letty Wheelock
Dottie Sundquist
Don & Dee Swatik
Bill & Wendy Talcott
Dominic & Cheryl Triola
Dana & Dolores Tschirch
Steve & Lisa Vaillancourt
Tim & Deb Vanderlinden
Mark S. Vayo
Carolyn Wellington
Parker & Diane Wellington
Giles & Lynn Whalen
Stanley & MaryEllen Wilczynski
Stephen & Marty Winchell
Beth Winchester
Chris & Kellie Windle
Terrance B Windle
David & Nancy Winn
Gregory & Cynthia Wolodkin

***Denotes new members + Denotes deceased**

Thanks to all LSWA members. It is not too late to be a 2013 member!

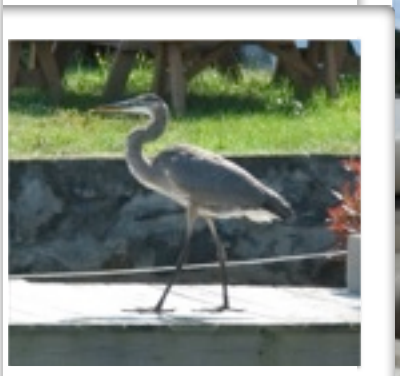
Send dues payable to LSWA to: LSWA c/o Benjamin Ins., 497 Central Turnpike, Sutton, MA 01590

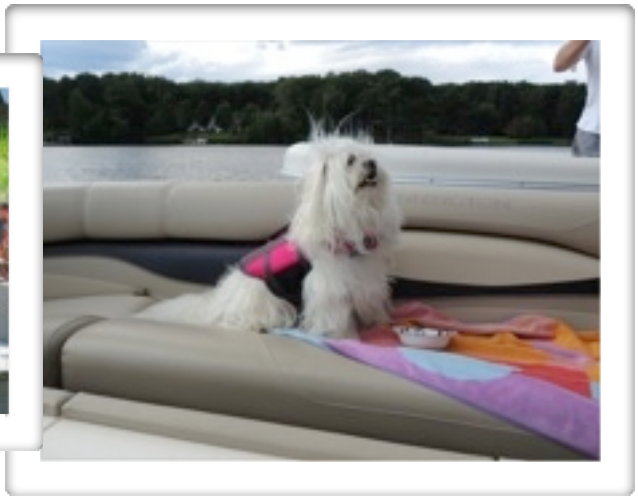
WATER LEVEL AND DRAWDOWN

This past spring, Mother Nature cooperated nicely with ample early rainfall that provided our lake with a good timely refill. Early in the season, she did get carried away with one huge rain event that put us above optimal water level for about a week. Through coordination with the Town of Millbury DPW, Massachusetts Public Access, The Massachusetts Environmental Police and The Lake Singletary Watershed Association we were able to officially close the state boat ramp for that period. Thanks to all the agencies that worked with us to help protect our member's properties during that time.

The balance of the season our water level remained virtually constant, at the perfect level for everyone to enjoy our great lake. It's easy for us to overlook the work that goes into maintaining the constant level that we enjoy. During the summer, and throughout the year, the dam has to be opened and closed many times and to varying degrees to meet target water levels. For all his efforts in keeping the lake as close to prescribed levels as possible, we have to thank Dave Rudge, the man behind the curtain for the Town of Millbury, who performs this magic.

This year, as usual, our drawdown started on Columbus Day. Hopefully we'll have a good freeze with the bottom exposed around the lake before we get an insulating snow cover. The hard freeze to the exposed lake bottom is necessary to get the maximum benefit of weed kill. After the freeze and subsequent snowfall we will begin a refill, staying below the retaining walls until ice out to prevent property damage. Hopefully, when the ice is melted, and we can close the dam fully, Mother Nature will again cooperate with our refill.





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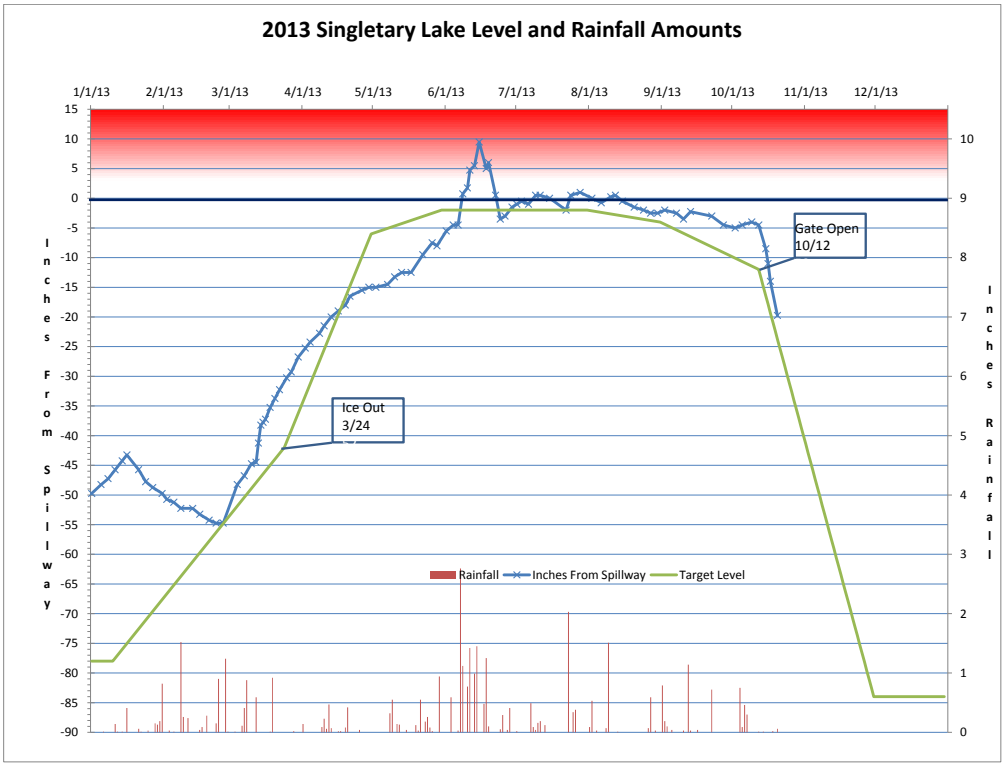
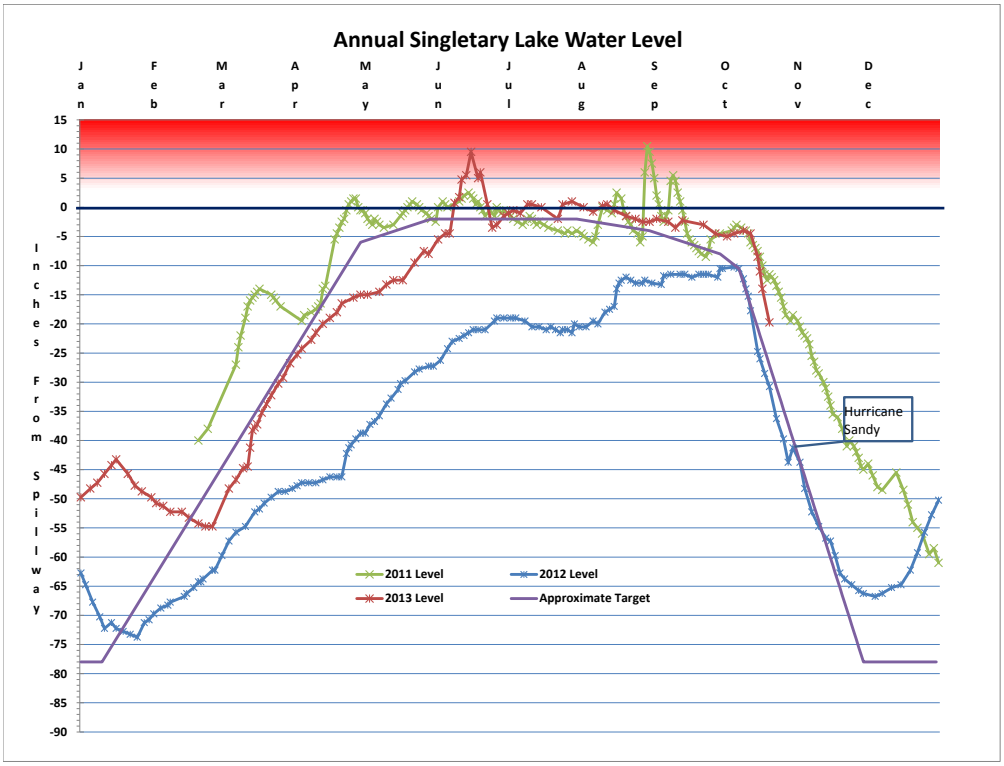
WATER LEVEL CHARTS



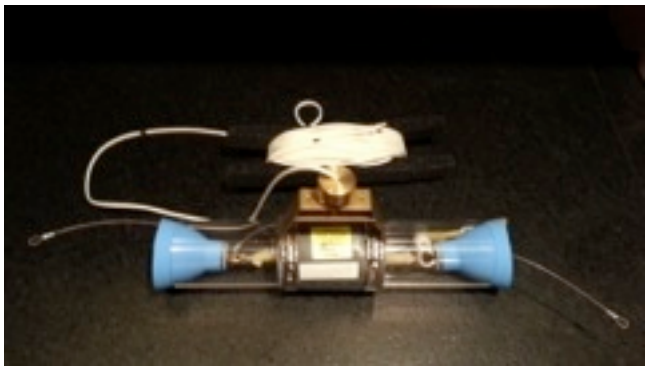


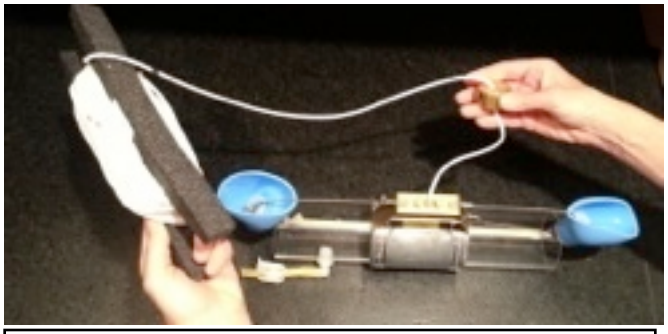
Volunteer Water Quality Monitoring Program Update

We have just completed the 20th year of volunteer monitoring. Our current program includes in-lake measurements for clarity (Secchi depth), pH - dissolved oxygen (DO) - and temperature profiles, alkalinity, and total phosphorus. In addition, we monitor pH, DO, and temperature, and phosphorus at 3 upstream locations in the Merrill Ponds.

The data has been submitted to Geosyntec, the consulting company we contracted with to complete our management plan update. The data will be used to model nutrient loading in the lake. Because we have so many years of data, this will be valuable for determining how water quality has changed over time, and for predicating future trends and potential improvements.

We recently replaced our 20 year old Wisconsin sampler, used to take samples at various depths within the water column. This "home-made" sampler consisted of a weighted mason jar modified with Bic pens glued through holes in the lid to serve as openings for the sample collection. The sampler was lowered to the desired depth with a calibrated line, and then a quick tug on the line pulled plugs out of the pens to fill the bottle. The new LaMotte sampler works a little differently. The ends of the tube are secured open, and then the tube is lowered to the desired depth. A weight, called a "messenger", is dropped down the line and trips the mechanism to close the ends of the tube and capture a sample at the desired depth. Our new sampler is definitely an upgrade!





Our new LaMotte water sampler!

General observations from 2013:

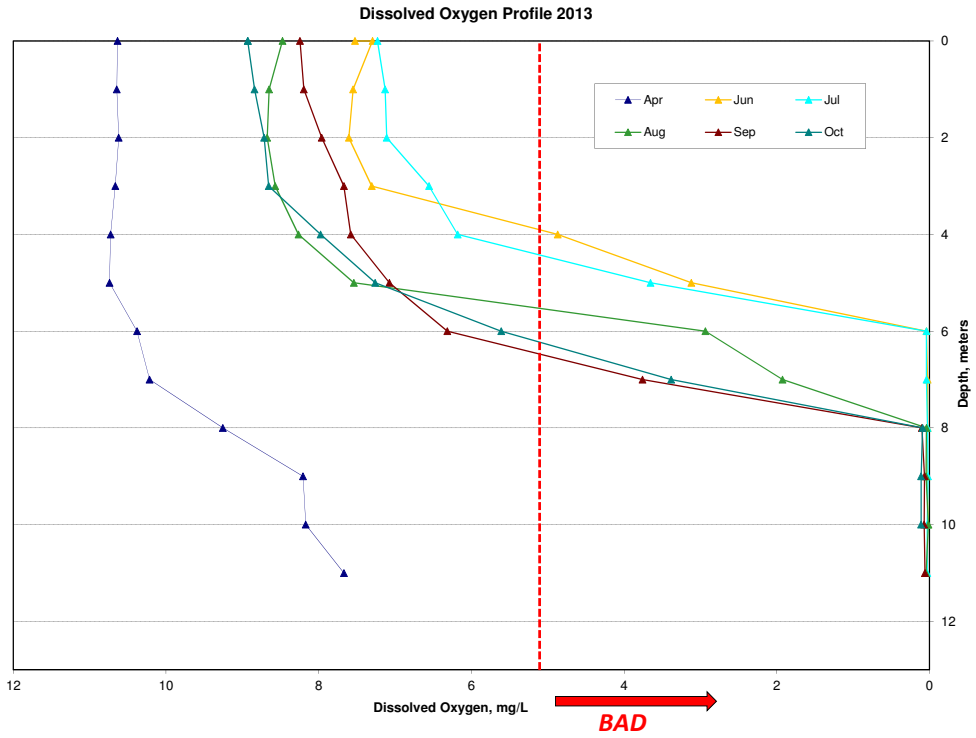
- Clarity has changed very little over time, and averages 3-4 meters, which is good. Refer to the chart titled Average Secchi Depth 1994-2013.
- Dissolved oxygen is still being depleted at the bottom, as seen in the chart Dissolved Oxygen Profile 2013.
- We are still seeing an increase in phosphorus at the bottom. The chart Lake Singletary Phosphorus Levels shows phosphorus at several monitoring locations over time.

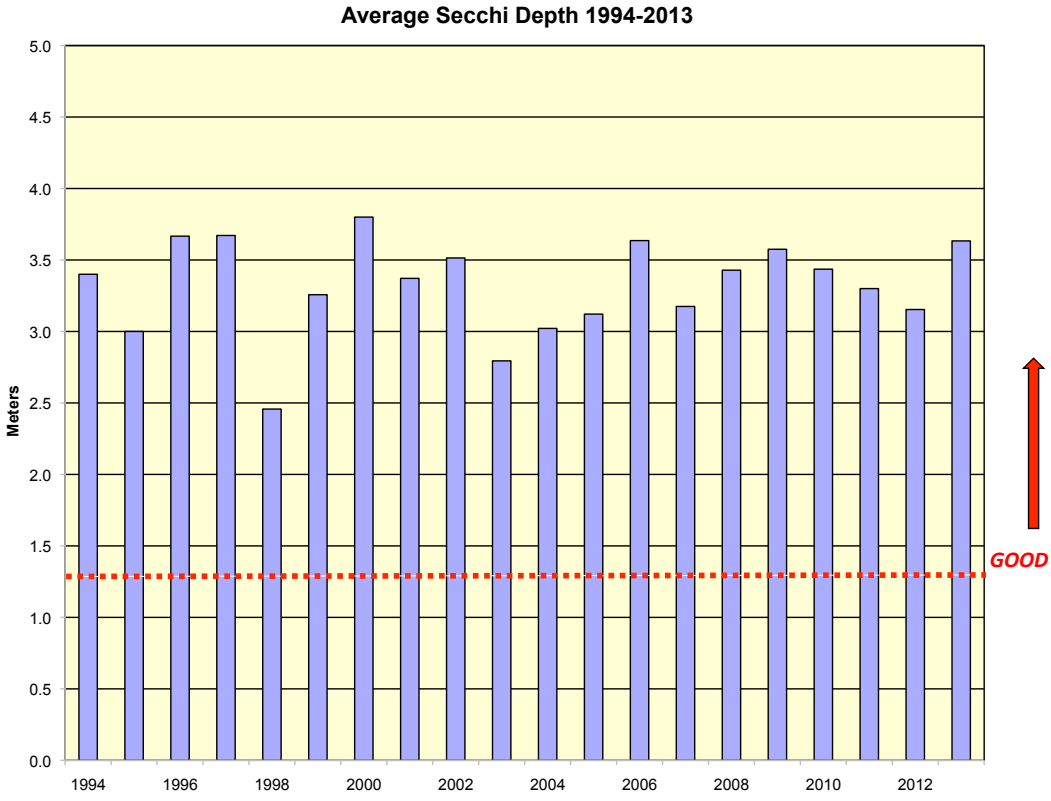
Increased phosphorus and decreased DO are caused by decomposition of organic matter in sediments. The sediments result from runoff and algae/plant die-off (either naturally or as a result of chemical treatments). As you probably know, increased phosphorus acts as a fertilizer for plants and can cause algae blooms. Experts consider levels of 10-20 parts per billion (ppb) detrimental. This past year, surface levels averaged around 14 ppb average, in that detrimental range.

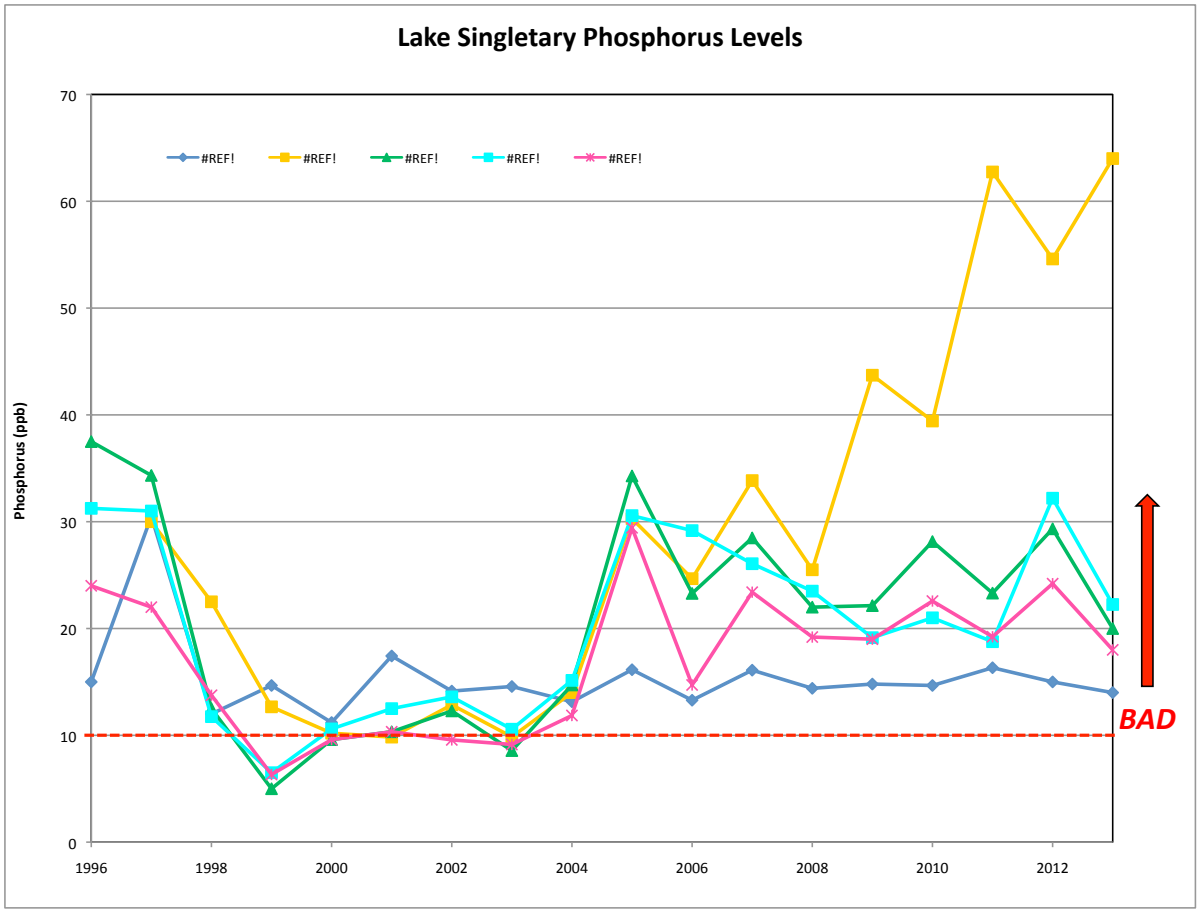
Last year we averaged 55 ppb at bottom, so far this year the bottom average is 64 ppb. The Merrill Pond system tributaries ranged from 11 to 70 ppb in 2012 and 13 to 39 ppb in 2013. We anticipate that our management plan update will provide us with a better understanding of what the data means in the context of improving water quality in the future.

If interested in learning more about our sampling program, check out our web site at www.lakesingletary.org. Click on Maintenance/ Water Quality to explore our program.

WATER QUALITY CONT.







Did they all catch the same fish?

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WEED TREATMENT SUMMARY

Fanwort Treatment Delayed Until 2014

As many of you know, this summer we had everything in place to treat the Fanwort "field" that extends from Sucker Brook to "the rock", areas around the boat ramp and near Marsh Rd. The lake was surveyed and a contract was drawn up for ACT to perform the treatment. Orange notices were prepared and posted all around the lake. Residents, Conservation, Recreation, Police, Highway and State Public Access Boards were all notified. Legal notices were placed in the T&G. Treatment date and alternative dates were confirmed. **AND THEN……Cancelled!!!!**

Why?

Aquatic Control Technologies (ACT) thought all the approvals were in. After all, the EPA had approved the herbicide, known by the brand name "Clipper", and ACT and other companies were using the treatment already in many other states. In fact ACT was treating lakes a few miles over the border in Connecticut. We were under the impression that the Mass DEP had given their final approvals, but….. there was one person in the Nation Heritage who was concerned with the toxicity of Clipper towards fresh water mussels and then the DEP that put an end to our plans. This caused all permits for Clipper to be on hold until "a method is determined as how to measure the effect on mussels".

Never Give Up

At this point it appears all will be set to go next year. This will require all the work done this past summer all over again. At this point, we estimate 40 to 50 acres will require treatment. Last years cost per acre was about $625.00 (which was lower than other vendors) for a total cost upwards of $25,000.

Successfully Treated Milfoil, Nuisance Vegetation and Algae

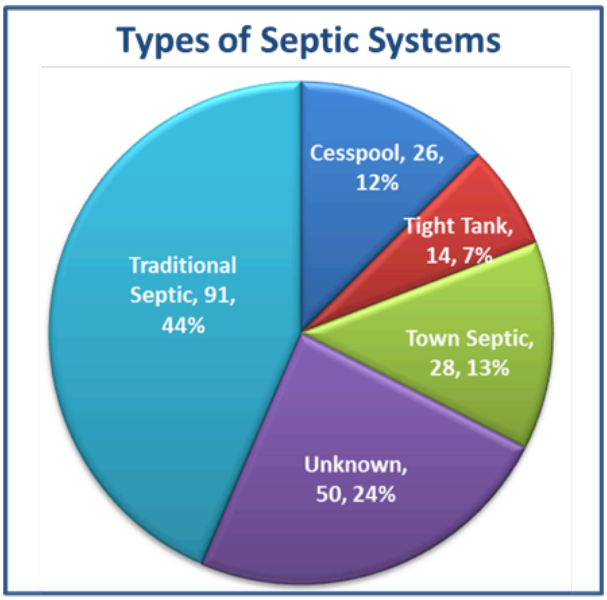
Originally, we included algae treatment in the proposal only as a contingency plan. Initial survey and water testing showed no signs of a pending bloom. A couple of weeks before the treatment a few lake residents did notice some filamentous algae in various locations around the lake. We conferred with ACT and decided a "1/2 lake treatment would be the best approach". The copper sulfate treatment was successful and it did put an end to the algae. The 1/2 lake treatment didn't result in any mussel or snail die off that had occurred in heavier treatment years. A small amount of milfoil, 1.1 acres near Fire Island and 1.5 acres of nuisance vegetation by Sucker Brook were also treated.

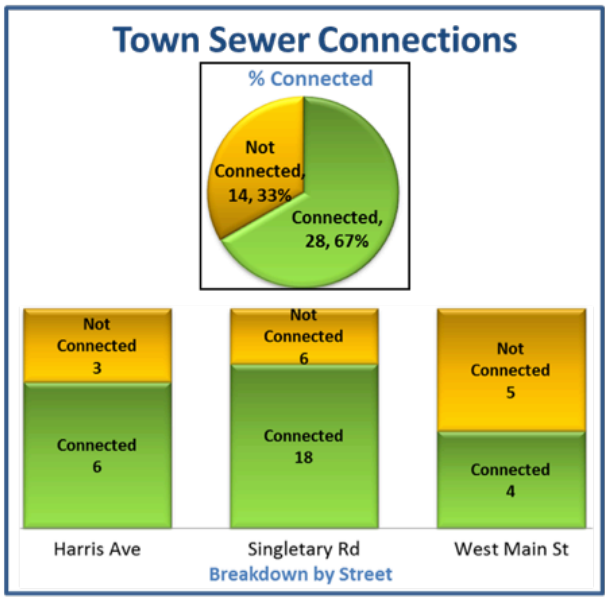
What is Nuisance Vegetation and When do we Treat it?

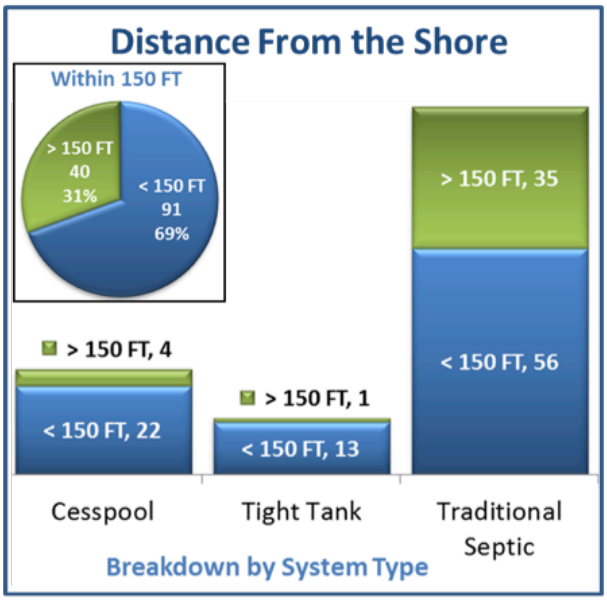
A healthy lake has many indigenous plant species that normally are good for the lake and help sustain fish and other wildlife. Most of these (along with Fanwort and Milfoil) can be seen on our web site at http://lakesingletary.org/Vegetation.php . So what causes a good plant to go bad? When these plants get to a point where they endanger swimmers or greatly impair navigation. ACT uses a scale where 1 is basically distilled water and 5 looks like the Merrill ponds up the street. Because treating indigenous species can have negative effects, we only treat when vegetation is a high 3 or 4 and we may not treat non-navigable or swimmable areas. Clearing "good" plants could potentially make it easier for Fanwort or Milfoil to take root!

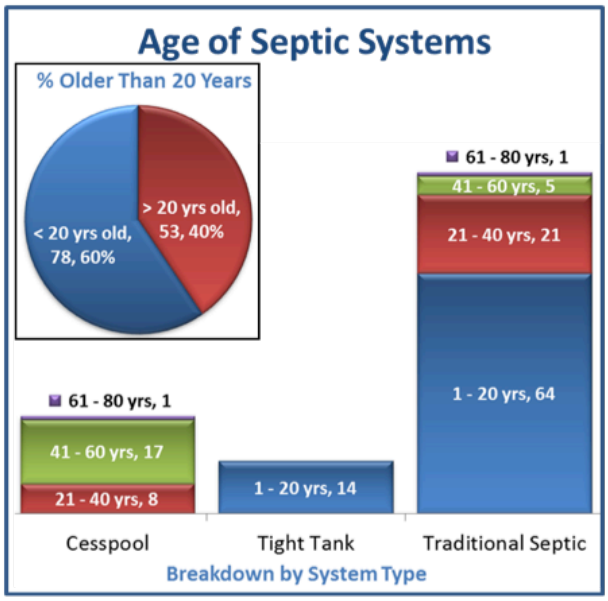
2013 SEPTIC SYSTEM STUDY RESULTS

As part of the LSWA Lake Management Plan (to be completed early next year), it is important to understand the levels of nutrients being fed into our lake (nutrient loading) as well as the sources of those nutrients. The more we know about those sources the better we can manage the amounts that enter our lake. One of the studies being conducted is the amount of nutrients that we produce by our very own everyday living, which of course is disposed through our sinks, toilets, showers, washers, and then into our septic systems that eventually leach through the ground into the lake. We collected the information earlier this year through our septic system survey and the participation was so outstanding we thought we'd share some of our findings. Although the main goal is to determine the amount of nutrients we produce, which we will leave up to the Geosyntec scientists, we did find some other interesting facts. Out of the 209 homeowners surveyed on and around the lake, 159 (75%) responded, that is fantastic! Thank you so much for your participation as this information will be very helpful for our study.









"ASK ALICE"

A new addition to our Newsletter, featuring answers to common questions from our LSWA Members

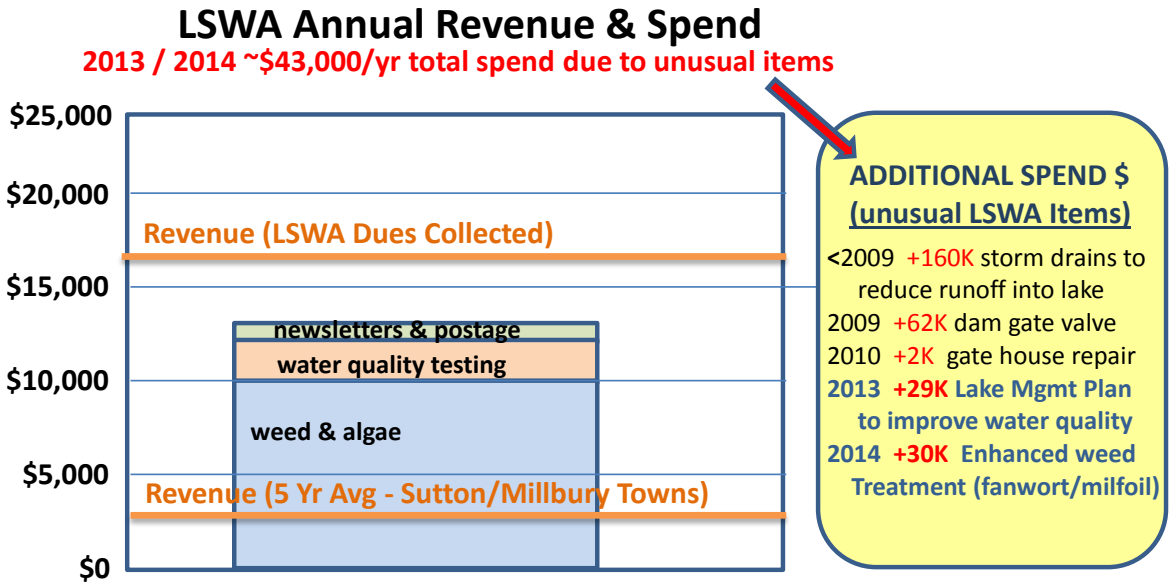
"Ask Alice" ...

Q: Why does the LSWA ask me for money *every year*? Why do they need $100 again this year?

Alice: Well - I was wondering the same thing the other day. So I did a little investigating, and it turns out that the money collected for LSWA Dues is all re-invested into our lake to preserve and improve the water quality of Lake Singletary. I learned *that our lake really is a precious natural resource, important for wildlife, fisheries, and of course, pleasure!* And in this day and age, nature seems to need a little help to keep our lake so clean and clear, while also assuring it is a safe home for the wildlife that also lives here.

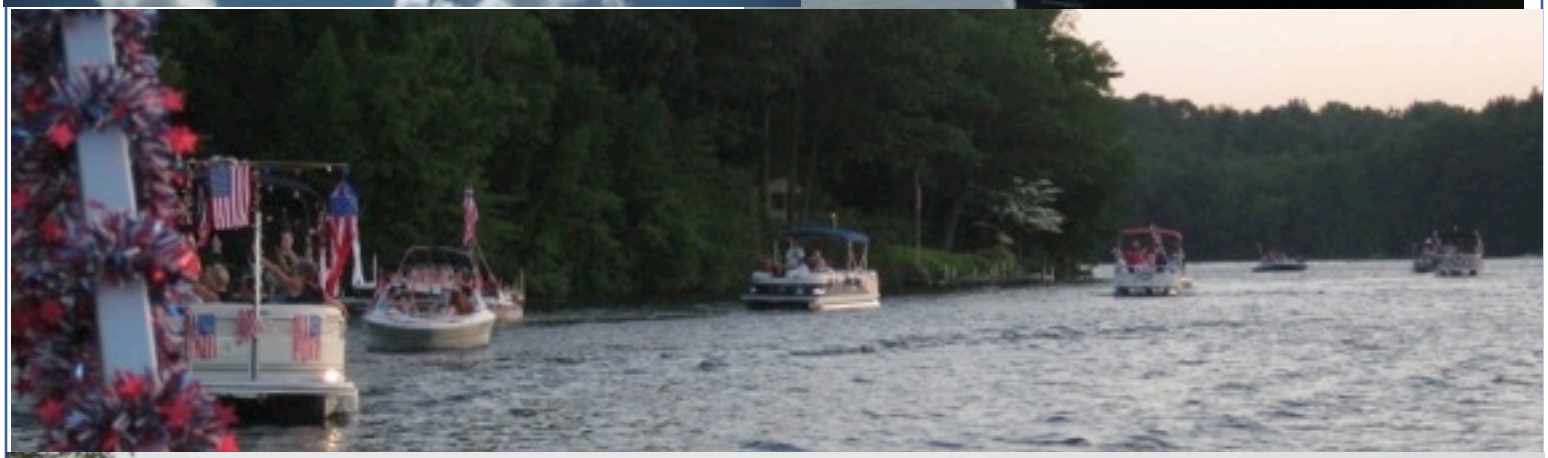
Let me offer a quick analogy. Many of our friends work very hard to maintain & improve their lawns and gardens. Others pay landscapers, association fees, or condo fees to do the same (and I bet most spend more than $100/yr). I have other friends with nice swimming pools, and boy can they spend some money each year keeping their pool water clean and clear. So – it's kind of like this on the lake, where we pay a fee so we can keep our " pool" or our "lawn & garden", aka Lake Singletary, having very good water quality, and remaining clean and clear – again for wildlife, fisheries, and of course pleasure. Get it? If we don't keep investing in our water quality every year, our lake *could* end up looking like some of our neighboring ponds, over-grown with weeds and algae, and becoming somewhat unusable.

So I hope this answers part of your questions, and perhaps the graph below will help too. The graph shows that annual expenses are covered by the Dues collected. But when we have a large, unusual expense, we can end up with a shortfall versus revenue. 2013 and 2014 pose challenges in that the spending plan exceeds the LSWA revenue expected by $20-25K each year. We continue to ask for your help with this, and we have also recently established both a general Fund Raising Committee, as well as a Municipal Funding Committee, which are both tasked with increasing revenue. More to follow on these committees and our plans in future Newsletters.



JULY 4TH BOAT PARADE

Who doesn't love a parade, especially when it is on your own backyard! We not only had great weather this year, we head plenty of water for the 4th of July Boat Parade. Whether you watched from the shore or were on a decorated boat, all had fun. We also enjoyed watching fireworks at the end of the parade!



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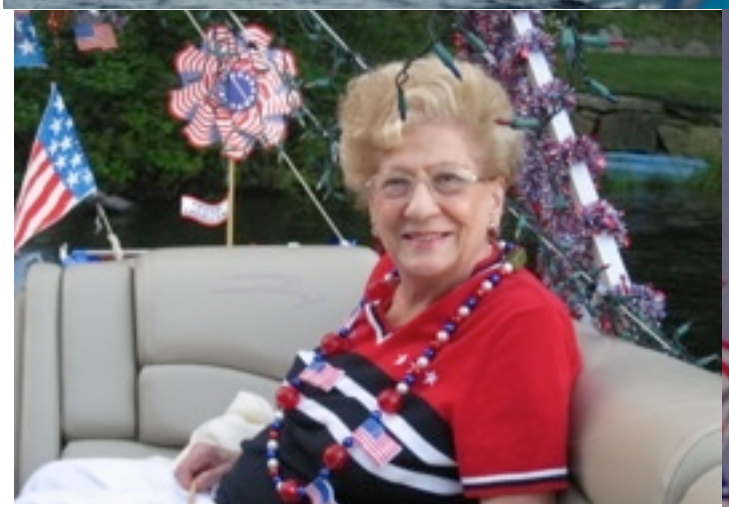
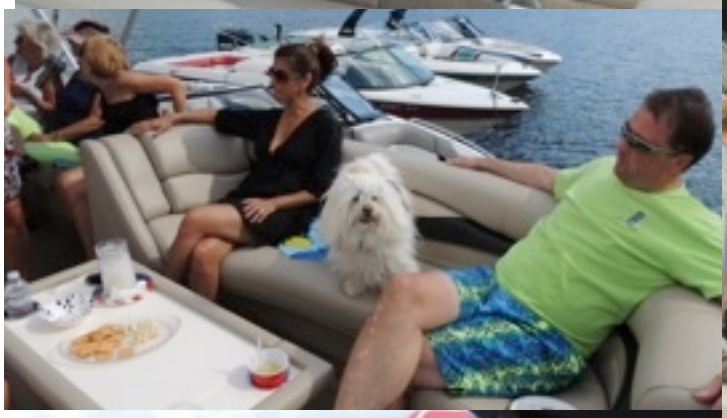
MORE BOAT PARADE PICTURES



RAFTING PARTY

Our boat rafting party was on Saturday, August 3rd. All enjoyed meeting new and old lake neighbors as they rafted their boats together near rock island. The food was great including Elaine Halpins infamous chocolate chip cookies. We also have a visit from "Alice." Next years rafting party date has been set for August 2nd.



LSWABOD@GMAIL.COM

MORE RAFTING PARTY PICTURES

YOUR ASSOCIATION BOARD MEMBERS

President	Paul Kawolis	pk308@aol.com	508-865-0741
Vice President	Tony Halpin	halpinj43@aol.com	508-865-2517
Treasurer	Bob LeClaire		508-865-6763
Secretary	Mona Kawolis	mona1223@aol.com	508-865-0741
Board members:	Mark Briggs	MBriggs@carpionatogroup.com	508-865-7839
	Lee Carman	leeacarman@gmail.com	508-865-2786
	John Charest	johcha01@gmail.com	508-553-9024
	Rose Direnzo	rosied3@verizon.net	508-865-4780
	Sharie Grant	shariegrant@gmail.com	508-865-8649
	John Greenlaw	john.greenlaw@verizon.net	508-865-8566
	Jon Heslin	hesexpress@aol.com	508-865-6930
	Wayne Junnila	wjunnila@charter.net	508-865-3151
	Karen LeBlanc	kkleblanc1@yahoo.com	508-865-4977
	Dan McNamara	daniel.mcnamara@us.ngrid.com	508-865-1016
	Brian Mellen	brian.mellen1@verizon.net	508-865-5631
	Dick & Karen Norlin	dnorlin@alum.wpi.edu	508-865-2581
	Karen Rapp	karenprapp@aol.com	508-634-8992
	Mike Salem	msalem@nctrf.natick.army.mil	508-865-3761

THE SINGLETARY SUN

LSWA

c/o Benjamin Insurance Agency

497 Central Turnpike

Sutton, MA 01590

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