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# THE SINGLETARY SUN

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

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## President's Message

This summer will go down as one of the best in recent years (days and days of hot sunshine). This past summer provided us with more "Lake" days than any summer in the past 6 or 7 years. Our association has had another successful year with nearly 100%

membership participation. Thanks to the hard work of our membership committee we are receiving contributions from nearly all property owners. These revenues have been used this year for our usual weed treatment programs as well as a very detailed weed survey, which will be used as a benchmark for future weed monitoring and control. We continue implementing our plan to manage the fanwort problem.

In the near future we should get the word that the new chemical "Clipper" has been approved and we are hoping that we will be using it next summer. While the chemical method has lots of promise for weed control, we have spent considerable time and money developing a new formal drawdown plan that we could use to support a deeper drawdown if we deem it necessary for controlling fanwort and other weeds.

On the social front all of our sponsored programs this year were a great success. Earth day clean up was the best ever leaving us with well-scrubbed lake surroundings. The big surprise was the boat parade with hundreds of people packing the shorelines to watch the event and see our best ever lit boats. Last but not least, the rafting party was once again on a perfect day giving all a chance to socialize and mix it up with all their lake neighbors.

Finally, I would like to take this chance to thank all the board members, past and current, for their endless commitment to making our lake and association the best it can be. See you around the lake!

Tim Vanderlinden – President LSWA



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**IMPORTANT REMINDER:** THE NORMAL YEARLY DRAW DOWN WILL BEGIN AROUND COLUMBUS DAY

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# Fall Cleanup/Maintenance is Now Underway!

LSWA is will begin their fall cleanup/maintenance activities, anyone interested in volunteering please send email to [brian.mellen1@verizon.net](mailto:brian.mellen1@verizon.net) and let him know which project you're interested in volunteering for. He will contact you a couple of weeks before the project begins.

The 4 Projects will include:

1. Clean up the outlet behind the dam. Very overgrown! This project is already underway.
2. Install Stainless steel rulers at the Gatehouse. (Late October)
3. Replace all rotted wood and install new steel doors. (Late October)
4. If weather permits, Vinylside the gatehouse. (Maybe November)



Gatehouse and its new asphalt roof



Jeff Clark (left) and John Direnzo (right) working hard cleaning up the outlet behind the dam. Thanks to all who helped out with this phase of the project!



**Lake Singletary Word Search**

F	I	L	H	P	L	O	O	N	I	S	L	A	N	D	A
R	H	G	A	U	F	W	G	U	L	R	L	E	N	S	D
G	A	M	R	K	P	I	D	M	A	I	O	A	Q	W	O
F	R	A	W	F	E	O	R	S	U	C	L	G	C	E	A
H	R	I	E	G	P	S	W	E	L	S	F	H	U	L	T
O	I	N	L	L	M	A	I	N	I	N	L	E	T	S	O
M	S	O	C	A	A	Y	J	N	K	S	Z	P	B	H	W
V	I	U	B	K	C	X	E	O	G	E	L	M	H	P	N
X	C	T	F	G	S	K	C	N	U	L	V	A	P	O	B
W	E	L	I	M	N	J	U	D	L	I	E	R	N	N	E
L	H	E	R	U	O	S	G	J	L	S	H	T	T	D	A
M	O	T	S	V	I	Q	J	W	R	L	I	A	A	K	C
S	U	C	K	E	R	B	R	O	O	K	R	O	Y	R	H
D	S	M	D	F	A	R	E	C	C	A	M	B	P	E	Y
K	E	Q	V	L	M	O	W	G	K	Z	M	R	R	A	H

Boat Ramp

Fire Island

Gull Rock

Harris Ice House

Lake Singletary

Loon Island

Main Inlet

Main Outlet

Marions Camp

Sucker Brook

Sunken Island

Welsh Pond

Did you find all the words? Now try to find these words on the Lake Singletary map at <http://lakesingletary.org/About-The-Lake.php>

## Well Survey Update

The LSWA Well Survey is 90% complete. Thanks to all of you who participated in completing the survey. It is greatly appreciated.

For those who have not completed the well survey, we urge you to do so as this information will be used as part of the drawdown assessment when determining the maximum depth for our drawdown plan. The Well survey form can be downloaded from the LSWA web site [www.lakesingletary.org](http://www.lakesingletary.org). Select "About Us" on the top menu and click on "LSWA Documents"

# SUMMER 2010 LAKE FUN!

Our members sent all of the pictures on this page in. Thanks for all of your contributions! To see your pictures in the next Singletary Sun e-mail them to [shariegrant@gmail.com](mailto:shariegrant@gmail.com).

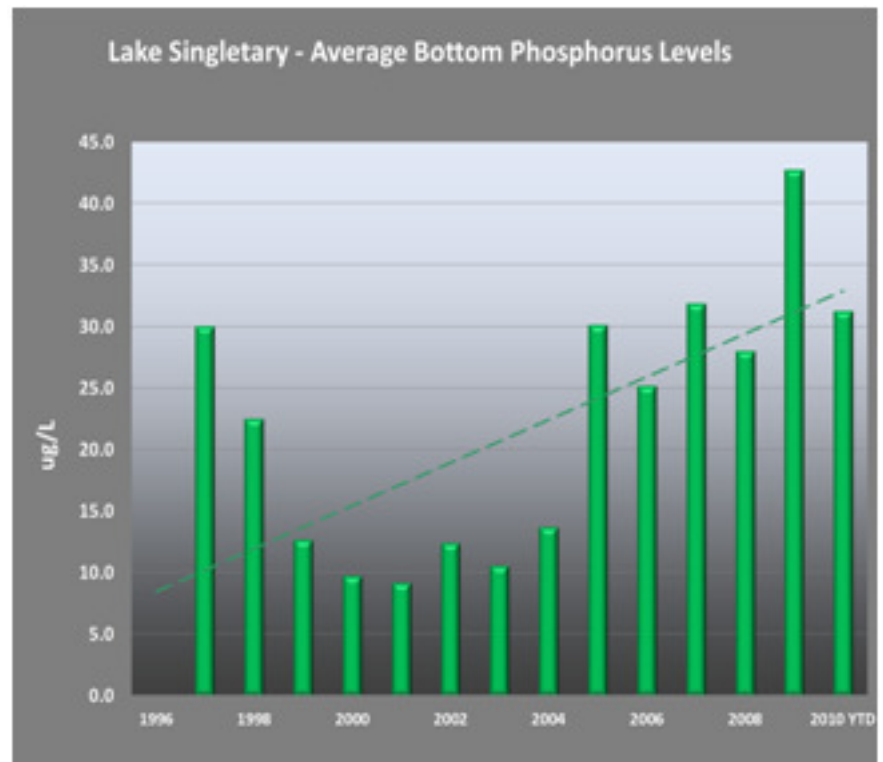


## Water Quality Update

This season is our 17th year of volunteer monitoring. Over the years of data collection one notable trend is that dissolved oxygen (DO) at the bottom of the lake is decreasing. Low dissolved oxygen stresses fish populations, especially species such as trout. In summer, when the lake is stratified, fish leave the warm upper layer for the colder water towards the bottom. If there isn't enough oxygen to support them in the lower depths a fish kill can result. A level below 5 parts per million (PPM) is considered detrimental. Our DO levels drop well below that in the summer. In addition, the drop in DO seems to be occurring earlier in the season.

Both natural variation and pollution sources can affect DO concentration. As algae and plants die off at the end of their life span or due to chemical treatment, the organic matter they contain gets incorporated into the sediments. As the sediments decompose, the process consumes oxygen at the bottom of the lake and releases phosphorus. This release of phosphorus plus input from pollution sources such as fertilizer or septic system runoff stimulates plant and algae growth. So you can see it is a vicious cycle.

The ultimate solution is to reduce nutrient loading in the lake. Around the shoreline we have taken a lot of actions, such as retrofitting storm drains, promoting the use of zero phosphorus fertilizer, and encouraging Millbury residents to tie in to the sewer line. We need to continue reducing the degradation of Lake Singletary's water quality by expanding our efforts further into the watershed.



For more information on our water quality monitoring program, visit our web site at [www.lakesingletary.org](http://www.lakesingletary.org), and click on Water Quality on the Maintenance tab.

By Karen Norlin

## Water Level and Drawdown

As you all may remember we were challenged this spring with some extraordinary amounts of rain that caused the lake to be shut down for several days due to high water levels. Who would have thought that all that rain would be followed by such long stretches hot sun and no rain at all? Through it all, once things got under control, the water level was perfect for maximum enjoyment if the lake. We made it through the long dry summer with plenty of water for recreation.

Now its fall and fall means drawdown. The fall drawdown will begin on or about Columbus Day and continue to drop to our historical levels. Hopefully, with some luck we will get a hard freeze before any snowfall and maximize the weed freeze.

# Dissolved Oxygen Facts

## Reasons for Natural Variation:

Dissolved oxygen concentrations change with lake depth

- Oxygen production occurs in the top portion of a lake, where sunlight drives photosynthesis
- Oxygen consumption is greatest near the bottom of a lake, where sunken organic matter accumulates and decomposes

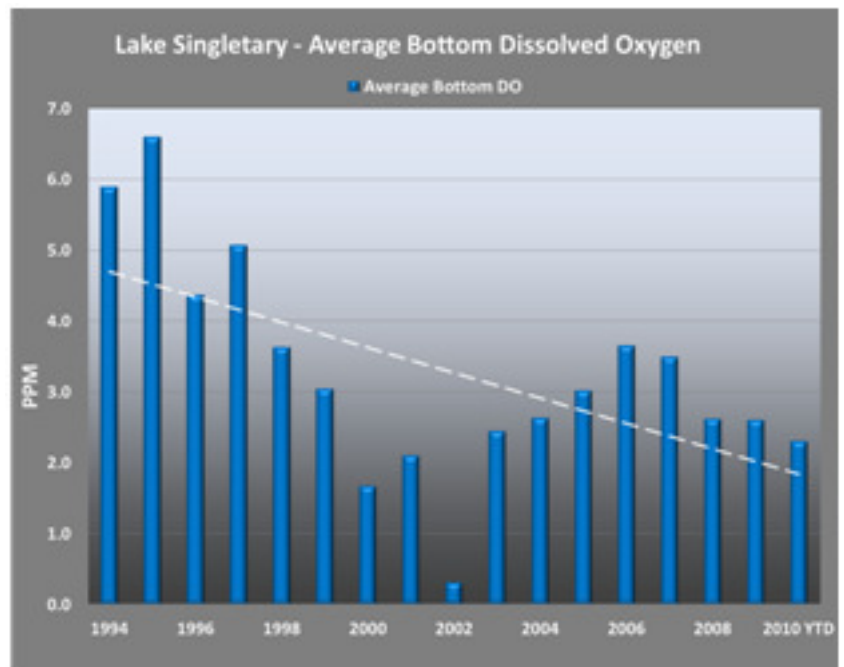
Seasonal changes affect dissolved oxygen concentrations

- Warmer temperatures during summer speed up the rates of photosynthesis and decomposition
- When plants die at the end of the growing season (or during chemical treatment), their decomposition results in heavy oxygen consumption
- Other seasonal events, such as changes in lake water levels, volume of inflows and outflows, and presence of ice cover, also cause natural variation in DO concentrations

## Expected Impact of Pollution:

Pollution causes a decrease in average DO concentrations

- Pollution contributes organic matter (like sewage, lawn clippings, lakeshore erosion, and agricultural runoff) or nutrients that stimulate growth of organic matter
- This organic matter uses oxygen during decomposition
- If the organic matter is formed in the lake, for example by algal growth, at least some oxygen is produced during growth to offset the eventual loss of oxygen during decomposition
- However, in lakes where a large portion of the organic matter is brought in from outside the lake, oxygen production and oxygen consumption are not balanced and low DO may become even more of a problem



Effects of anoxia (low oxygen)

- This is most pronounced in thermally stratified systems in summer and under the ice in winter when the water mass is cut-off from the atmosphere
- Anoxia can lead to increased release of phosphorus from sediments that can fuel algal blooms when mixed into the upper (sunlit) zone
- It also leads to the buildup of compounds such as ammonium and hydrogen sulfide (H<sub>2</sub>S, rotten egg gas) which can be toxic to bottom dwelling organisms and can cause fish kills

Source: [www.waterontheweb.org](http://www.waterontheweb.org)

## Earth Day Clean Up April 24, 2010



Once again a fantastic group of eager volunteers met at the boat ramp on Saturday 4/24/10 to clean up around the lake and its watershed. Of course, we began with enjoying donuts and coffee and socializing with each other. We had great weather and due to the large turnout, we were able to finish in no time! Thanks to all of the following who participated: sue & Sara Macaruso, Vivian and Paul Marcell, Letty Wheelock, Bob Strong, John Silverberg, Wayne Mong, Cindy and John Charest, the entire Mellen family, Kristen and Kevin McCarthy, Dylan Karsen, Lee and Paul Adams, Sue Mong, Bonnie Westerlink, Jennifer Katenes, Rosemary and Mike Salem, Mona and Paul Kawolis, and David Marois. A very special thanks goes out to the youngest person in the group, Alexandra Marois!



# SPRING WING DING (Saturday, May 8th, 2010)

This year's spring wing ding was again held at the Dudley Gendron post in Sutton. What a great time everyone had socializing and dancing. All enjoyed the Italian buffet prepared by Brothers II catering of Millbury. The raffle was huge success. A special thanks to our sponsors; from Millbury, Calabria Ristorante, Scales Seafood and Ice Cream, and Longhorn Steak House' from Sutton, the great Canadian canoe & kayak and from Worcester, Linder's Inc., and U.S.A. Marine. A special thanks to Mona Kawolis and the social committee for organizing the event and coordinating the amazing raffles! For those that like to plan ahead, next year's date has already been set for Saturday May 7th, 2011. Hope to see you there next year!



# 4<sup>th</sup> of July Boat Parade

Everyone agrees that this year's Fourth of July parade goes down as the best boat parade ever! The boats in the parade were again creatively adorned with patriotic decorations and lights and were filled with enthusiastic and spirited participants. We counted approx. 37 boats in the parade, constant lakeside parties, an inflatable Uncle Sam, a live trumpet player and our youngest entry yet Kyle Bergeson and crew complete with large flag décor! Many lake residents had huge parties where parade watchers on shore participated by waving flags and cheering. Whether you were on a boat or on shore, it was fun for all! Thanks to Greg Johnson for taking most of the following pictures from the shore at the beginning of the parade!





## Lake History--Did You Know?

Lake Singletary played an important role throughout American history. During the Industrial Revolution, Lake Singletary (then called Crooked Pond) supplied power to the mills built along the Singletary Stream outlet, formerly called Mill Brook.

In 1720 John Singletary purchased land along the Singletary Stream from Ebenezer Daggett. Shortly after John established the first gristmill in Millbury and later added a saw-mill. John and his son Amos kept these mills in operation for many years. In fact the gristmill (known today as S & D Spinning Mill), is still in operation, making it one of the oldest continuously operating mills in the United States. Rumor has it that the original water turbine is still in the basement of the mill.

Throughout the 1700's and 1800's several more mills were erected along the Singletary Stream, manufacturing goods such as flour, cotton, paper, guns, scythes, horseshoes, and many other farm equipment items. Lake Singletary was also a major source of ice for the Worcester County area when Warren A. Harris built and operated his 2,500-ton Ice House.

## E-Mail Address Request

Get on the e-mail mailing list today and receive timely information about LSWA events, meetings, weed treatments, drawdown timing and newsletters! E-mail your information to [shariegrant@gmail.com](mailto:shariegrant@gmail.com).

# Rafting Party August 7, 2010

We had perfect weather for our rafting party this year and had a great turnout! As a special surprise we celebrated Don and Dee Swatiks 40<sup>th</sup> wedding anniversary, which fell on the day of the party, with a toast of Bud Light Lime and Italian cookies for everyone. They danced to their song on the swim island and were released into the sunset! As the night approached the flotilla of boats released from anchor and did our annual lap around the lake en masse!



## 2010 LSWA Honor Roll

<p>Paul &amp; Lee Adams  Roy &amp; Marilyn Ahlen  Bill &amp; Charlotte Bedord  Margareta Berg  John A. Bergin  Ken &amp; Kathleen Bergeron  Carl &amp; Penny Bergeson  Ed Bettke  Paul &amp; Joan Bjork  Virginia Bliss  Mark Briggs  John &amp; Carolyn Brigham  Elaine Bryant  Brad Bumpus  John &amp; Stacy Burl  Michael &amp; Rie Poirier Campbell*  Thomas Capistrone  Dottie Capuano &amp; Shirley Lofgren  Norman &amp; Joyce Cardin  Paul &amp; Linda Carlson  Lee Carman  Michael Catino  John &amp; Cynthia Charest  David, Sherry &amp; Tom Chevalier  Robert &amp; Judy Clark  Robert &amp; Jeff Clark  Joan Poirier Cosentino*  James &amp; Amy Craft  Helen Largess-Crewe  Anne &amp; Sean Cusick  Bob &amp; Barbara Daigneault  Dan &amp; Mary Daly  Alan &amp; Dorothy Dearnley  Joe &amp; Kelli Deliso*  Joyce De Rosa  John &amp; Rose Drenzo  Stephen &amp; Theresa Dunne*  Mike &amp; Judy Dunne  Alan &amp; Ronnie Engstrand  John Esler  Bill &amp; Jenny Fields  Diane Fulten  Barbara &amp; Julio Fusaro  Greg Gauthier  Dana &amp; Diane Giampa  Michael &amp; JoAnne Goodfriend  Everett &amp; Janet Grahn  Nancy Grant</p> <p><b>*Denotes new members</b></p>	<p>Travis &amp; Sharie Grant  Karen W. Green  Conrad &amp; Mary Hagstrom  Walter &amp; Joan Hagstrom  Tony &amp; Elaine Halpin  Janet Hammarstrom  Paul &amp; Lorna Hammarstrom  Michael &amp; Deborah Hanlan  Tom &amp; Marie Haynes  David &amp; Deborah Hebert  Jon &amp; Donna Heslin  Kathleen &amp; David Holt  Donal &amp; Dina Jamieson  Fred &amp; Nancy Jarvis  Pam Jernberg  Gordon Johnson  Greg &amp; Nancy Johnson  Jeff &amp; Suzanne Johnson  Russell &amp; Mary Johnson  Wayne &amp; Ann Junnila  Paul &amp; Mona Kawolis  TA &amp; Cindy King  Paul Larson  Paul &amp; Kathy Laverdiere  James &amp; Pamela Lavoie  Paul &amp; Diane Lavoie  Kenneth &amp; Karen LeBlanc  Bob LeClaire  Jim &amp; Ruby LeClaire  Charles &amp; Lynn Lidz  Axel Linder  Kenny Linder  Alan &amp; Ellen Marcell  Paul &amp; Vivian Marcell  David Marois  Normand &amp; Gloria Marois  Lynda Martin &amp;  Craig Warneke  Garth Maynard  John Maynard  Kevin McCarthy  Patricia McCarthy  Theresa McDermott  Daniel &amp; Kyrenya Mc Namara  Frank Mc Namara  Garry &amp; Peggy Melia  Garry T&amp; Karen Melia  Brian &amp; Laurie Mellen  Stephen Mong  Wayne Mong</p>	<p>Dennis &amp; Nancy Mulhane  Bill &amp; Barbara Nartowt  Richard &amp; Karen Norlin  Bernice O' Gassian  David &amp; Ruth Parker  Robert &amp; Ginny Picking  Brad &amp; Cathy Pierce  Ken &amp; Karen Rapp  Frank G. Rourke  Alan Rudge  David Rudge  Ronald &amp; Janet Rudge  Richard &amp; Carol Rudman  Michael &amp; Rosemary Salem  Donald Salerno &amp; Marna Hasz  Helen Salmon  Mark &amp; Timothy Salmon  Lucille &amp; Jack Sampson  Tom Scagnelli  Jacqueline Shakar &amp; Debra Pinto  Holland &amp; Sylvia Shaw*  Mark Shirman  John Silverberg  Ronald Stead  Robert Strong &amp; Letty WheeLOCK  Dottie Sundquist  Don &amp; Dolores Swatik  Bill &amp; Wendy Talcott  Dominic &amp; Cheryl Triola  Fran &amp; Kathy Triola  Dana &amp; Dolores Tschirch  Steve &amp; Lisa Vaillancourt  Tim &amp; Deb Vanderlinden  Mark S. Vayo  Francis Venincasa  Carolyn Wellington  Parker &amp; Diane Wellington  Bonnie Westerback &amp; Jennifer Kapenas  Giles &amp; Lynn Whalen*  John &amp; Jeanne Willis  Stanley &amp; MaryEllen Wilczynski*  Stephen Winchell  Beth Winchester  Chris &amp; Kellie Windle  Terrance B Windle  David &amp; Nancy Winn  Gregory &amp; Cynthia Wolodkin  Elizabeth Sevigny Zerski*</p>
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*Thanks to all our paid LSWA members. It is not too late to be a 2010 member*

**Send dues to: Robert LeClaire c/o Benjamin Ins.  
497 Central Turnpike, Sutton MA, 01590**