



The 2017 Webster Lake Association Photo Fundraising Calendar has gone to press and will be available to order by the time you receive this newsletter! Go to WebsterLakeNH.com and click on the calendar store.

This year's Calendar, entitled *Capturing the Beauty of Webster Lake 2017*, is comprised of the 13 winners from the 2016 Spring and Fall Photo Contests. The winners of the Fall 2016 contest are: Betty Pauwels, Judy Desharnais, Judy Davis, Gina Murphy, Ashley Pevine, Nancy Wolcott, Peggy Cain, Laurie Salame, and Mark Lorenze. The winners of the spring 2016 photo/art exhibit contest were Judy Desharnais, Shawna-Leigh Morton, Randall Werner, and Peggy Cain.

And the images are stunning! We've reproduced them in miniature on this page, but the calendar itself is a treasure! The standard-size calendars will sell for \$15 each plus shipping. An extra-large size and a 12-month poster calendar are also available. To order (any quanity) go to the "Store" tab at Webster-LakeNH.com.

Many thanks to the four judges who convened for both the spring and the fall contests: Bill Cain, Linda Johnson, Sarah Stanley, and Val Perkins. It was no easy task! All non-winning images from the spring contest were automatically resubmitted for the

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Banner photo at top of page: Randall Werner.

1. Judy Desharnais. 2. Betty Pauwels. 3. Judy Davis.

4. Gina Murphy. 5. Ashley Pevine. 6. Nancy Wolcott.

7. Peggy Cain. 8. Shawna-Leigh Morton. 9.Laurie Salame.

10. Peggy Cain. 11. Judy Desharnais. 12. Mark Lorenze.

# Cyanobacteria and the Big Three Culprits

Webster Lake is still suffering from a major cyanobacteria bloom. Not in the last decade has the lake experienced an outbreak of this proportion. In the recent past, outbreaks have generally been confined to local areas. This one encompasses the entire lake.

A count of the concentration of the bacterium taken on the third week of September put it well above the level for the State to issue a lake warning, advising people not to swim, use water drawn from the lake, or allow pets to swim or drink the water. Their response to the testing is as follows: "The estimated density of Anabaena was ~102,000 cells / ml. That is above our threshold (75,000 cells / ml) for issuing a beach advisory or lake warning."

At this point the swim season is technically over and we aren't issuing new advisories, but the public still needs to be aware, especially for those who let their pets swim or drink the water or for folks drawing water directly from the lake for domestic use. The toxins emitted by our particular type of cyanobacteria are a neurotoxin that in some studies has been shown to have a direct link to neurological disease. Exposure when concentrations are high should be avoided and showering should follow any exposure.

Why does this happen? The experts we have spoken with say conditions are just right for these occurrences. Notably the temperature is consistent throughout the water column, the lake harbors the bacteria in the lakebed, and the nutrients phosphorus and nitrogen are prevalent. The following is a statement from Joseph Boyer, head of the Department of Environmental Studies at Plymouth State University.

"The nutrient concentrations as well

as the ratio of nitrogen to phosphorus determine amount of and species composition of phytoplankton in the lake. Nitrogen comes in from rain and watershed runoff; phosphorus mostly from watershed. Ironically, drought decreases nitrogen input more than phosphorus. The N:P ratio then skews the lake more towards N limitation which in turn promotes cyanobacteria that can fix atmospheric N. Also ironically, big deep lakes actually get clearer under drought."

The takeaway from his statement is that we continue to load too many nutrients into our lake, notably nitrogen and phosphorus.

What can we do? The obvious answer is to lessen the nutrient loading in our lake. The largest contributors of nutrient loading are: Stormwater Runoff, Septic Systems, and Fertilizers.

What can we do? The obvious answer is to lessen the nutrient loading, or TMDL (total maximum daily load) as the limnologists call it. The largest contributors of nutrient loading, THE BIG THREE, as defined in our 2007 watershed study, are: Stormwater Runoff, Septic Systems, and Fertilizers. Let's take these one at a time.

Stormwater Runoff. As water carries unabated over the land, it picks up the nutrients in the soil and deposits them into the lake. The Webster Lake Association and The City of Franklin are attempting to enter into their third project costing over \$100,000 to remediate storm water in large impact areas

around the shoreline. The first project was Griffin Beach, the second Lakeshore Drive, and this third project is on the corner of Lake and Webster Avenue. We have our eyes on future projects as well.

As a property owner you too can inspect your land and make sure any water gets diverted into vegetated areas and/or is remediated in some way. Resources are plentiful and available from NHDES on how to deal with runoff on your property. This is very important. It is our largest contributor of nutrients.

**Septic systems**. Is your system up to snuff, or is in in failure? Do you have it pumped and inspected regularly? Take advantage of the spring special Rowells Septic always offers lake residents.

Is your system so old you have no idea about its condition or even location? Please, take the time to make sure your system is in compliance. Read the article on Septic Systems on page 4 in this issue. This is the second biggest reason our nutrient load is above TMDL.

Fertilizers. Under the Shoreline Protection Act is it illegal to apply ANY fertilizers to properties within 40 feet of the lake. Beyond 40 feet, only slow-release zero phosphorus fertilizers should be applied. Why apply at all? Aeration and water have proven to keep lawns as green as fertilizers. Please consider never buying that bag of fertilizer again. The lake will thank you.

As we go forward, it is the duty not only of the Association, but of each individual property owner to be proactive and vigilant in lessening the TMDL of nutrients entering our lake. Prior to development on the shoreline there were no such issues with cyanobacteria. Now, with the shore fully developed, the lake is suffering. Let's make it our duty to be good lake stewards and to get the lake ecosystem scales tipped back to where we can enjoy clear water and a healthy environment.

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fall contest, in addition to the images submitted after May and up to September 6, 2016. Well over 100 images! Unfortunately, there were quite a few good images that could not be considered for either contest because of their low resolution. Please keep in mind for future contests that submissions should be close to or more than one Megabyte (> 750 KB). Anything less than that would reproduce poorly in calendar size. In other words, texted images will always be too small. If you take a photo with your smartphone and want to submit it, email it as a "large" image rather than texting it.

We had two double winners: Judy Desharnais and Peggy Cain both won in the spring as well as the fall contests. The four who won in the spring contest were included as 12 x 18 canvas images in the Photo/Art Exhibit featured on weekends during the month of July in Marcia Feener's garage, along with images by Webster Lake resident and photographer Bill Cain. All four winning images were quickly sold to benefit the Webster Lake Association.

We are grateful to Bill Cain for contributing the image production and canvases for the Photo/Art Exhibit. All proceeds from the exhibit as well as the raffling of a larger image by Bill Cain at the Annual Meeting totaled over \$600, all of which went to the WLA.

So get your cameras ready and positioned for next year's WLA photo contest! The beauty of Webster Lake as portrayed by those who love it. Remember the importance of high resolution (necessary for calendar reproduction). Deadline early September 2017. Suggestions? Email info@websterlakenh.com.)



## The History of Webster Lake The Log Cabin Association

BY GINGER GROSS, SUMMER RESIDENT 205 Webster Lake Road, Franklin, NH

The Log Cabins on Webster Lake were initially a resort consisting of ten cabins, each with a bedroom, bath and screened porch or living room. All meals were served in "The Lodge, which was built in 1898, with a wait staff who lived up the road at one of the two guest houses, "Bird's Nest" or "Spare Hours".

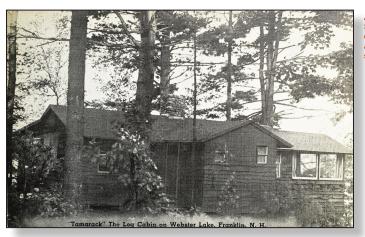
According to the 1926 Franklin Directory, Dorothy and Rogers Johnson owned and operated the rental cabins. Tenants would take the train from Boston and get off at the Webster Lake Depot on Route 3, down past the present day transfer station.

There were four swimming spots with fine, sandy bottoms. Canoeing, boating, sailing, and fishing were available at no extra cost. Other activities included picnics in Webster Grove, movies, ping pong, horseshoes, shuffle board, bridge, and billiards. Also offered were tennis and golf at Mojalaki Country Club.

The newest cabin was built after the hurricane of 1939 because so many trees fell. Many of the walls were built with boards 12 inches wide.

The Log Cabin Association was formed in 1959 and has 13 families who own their own homes and land. They jointly maintain the private road and beach.

If anyone has any further information, please email me at Websterlake72@ aol.com.



Above, Webster Lake Filling Station in the early 20th century. At left, Tamarack Log Cabin, same era.

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### Septic Systems: More Than You Wanted to Know

BY BONNIE MOORE SUMMER RESIDENT 110 LAKE AVE., FRANKLIN, NH

I recently sat down with local septic design and wetland scientist Deb Hinds to find out more about my septic system. I wanted to know how it worked. She had designed it for the previous owners, and I want to make sure it stays healthy and lasts a long time.

What I learned was interesting and helpful, so I wanted to share.

Most of us know that a septic system processes the solid human waste flushed down the toilet right? True, a septic system is designed to break down solid human waste so it can be safely filtered through the leach field and back into the sub soil. The septic is the most important defense in preventing solid waste, sludge and scum from clogging the soil and prevents the natural purification process.

Did you know septic systems are not designed to break down toilet paper? Toilet paper is designed to break down in septic but not the other way around. Single ply paper most effectively breaks down (yes, single ply).

Did you know that tissues (Kleenex or other) are not meant to be flushed? They are not designed to effectively break down in a septic system, neither are "flushable" wipes or other items that infer they should be flushed; although they will "flush," septic's are not designed to, nor do they, break them down. Accumulation of these items will require more frequent pumping and can cause the system to be less effective.

How does the septic system break down waste? The answer, of course, is Bacteria. However, how often have you thought about those bacteria? What do they need to survive and do their job? Do they die off and need to be replaced? How much can they handle and what kills them? My first thought about bacteria is *Yuck*! I want to wash any bacteria off myself, using hand sanitizers, antibacterial soaps (liquid and solid), antibacterial dish detergent (e.g., Dawn) and bleach (or other cleaning products containing bleach). But, did you know that ALL of these items KILL bacteria?

If you kill the bacteria in your septic system, your septic system doesn't function properly. So, how much can we use and still be safe? Well, the exact amount is not known but as little as possible or none is best. In addition, gasoline, paint thinner, pesticides, even drain cleaners should not be added to the septic by flushing or dumped into the sink. Bacteria feeds on human waste, they do not need oxygen (this is called *anaerobic*) in the septic tank and will multiple as long as there is enough space (area) for them to thrive. That is why it is very important to pump the septic tanks.

However, the leaching area is considered *aerobic*. Bacteria in this area does need oxygen to filter the effluent or liquid from the septic tank. I learned my septic system is filled with what they call "bio-balls", and the cumulative area of the individual balls adds up to more area than just a cylindrical tank only having a single area at the top of the tank. More area, more bacteria! I have my system checked every other summer and am surprised when the guy pulls up the sample and it is crystal clear! Working well!!

Did you know bacon grease or other cooking grease, even some salad dressings will coat the inside of the pipes in your system and build up over time to block or partially block the pipe(s) and prevent or limit the flow of liquid or waste? The best way to prevent this is to drain grease into a can, let it solidify, then throw it in the trash (remember your Mom or Grandmother doing this? Now you know why!). In addition, you can (and should) wipe the excess grease off of

pans or trays and throw the paper towels in the trash. Then wash those items with NON anti-bacterial dish detergent. Toss salad dressing containers into the recycle bin, either drain into paper towel or keep the cap on.

Following these simple steps along with regular pumping (every 2-3 years) and preventive maintenance will help your septic maintain healthy bacteria and keep it working properly longer.

If you have any questions about your septic, need an assessment of your septic (required to sell your home) to determine if you need a new system or the best type of system for your home, contact a septic services company. There is also helpful information on the NH DES website: www.des.nh.gov.

#### Webster Lake Association

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