WILSON LAKE NEWSLETTER Spring 2022

"All I want is to have my peace of mind" ~Boston

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Website: http://wilsonlake.net/ Facebook: Wilson Lake Association

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Membership in WLA: Your Dues Help Protect the Lake!

I want to help protect and preserve Wilson Lake for future generations and enclose my 2022

contribution of \$20 (Please make checks payable to Wilson Lake Association). Additional	
donations are always welcome!	
Name:	
Mailing Address:	Lake Address:
Send your dues (\$20) to Wilson Lake	Association, PO Box 162. Acton, Maine 04001 or through
PayPal or credit card at http://wilsonla	ke net/

SAVE THE DATES!

4th of July Boat Parade

- Meet at the outlet cove (boat launch) at 10 am
 - Annual Meeting—9 am Sat. July 9th at Nadeau (Old Acton) Airfield
- Bring your lawn chair and a smile
 - Breakfast Meet & Greet: 9-11am Sat August 20 at The Browns (346 Peacock Rd.)
- Pot Luck: bring your favorite breakfast food
- Jeff & Rachel Brown are providing coffee, tea, cream & sugar, water, plates, cups & utensils.
- Rain date: Sun. August 21st 9-11am



Letter from the Lakeside

We're off to a sprint of a start this 2022 season, including completing our full-scale decadal watershed survey on April 30th. Special thanks to all our volunteers and to the Lake Stewards of Maine for awarding us with a \$500 grant to help fund the project. Full results from the survey will be coming this fall. If you're curious what it's all about, check out our 2010 Wilson Lake Watershed Survey Report or visit our website for more info.

The watershed survey exemplifies everything we represent at WLA: volunteers driven by a long-term mission to protect Wilson Lake.

Yet the challenges remain: Run-off/Erosion. Algae blooms. Invasive plants.

More use of Wilson requires greater participation. With over 200 camps on the lake, we have at least 1000 people that enjoy Wilson every year—and we can all do our part.

My call is for each of us to do at least ONE thing this summer to improve the lake. An easy action was to participate in our Spring 2022 watershed survey (many of you already did, thank you!). Another easy way to participate is to <u>purchase WLA gear</u> (see last page!), attend our annual meeting, add erosion control landscaping, and keep an eye out for unusual plants and report them to us at WLA! **~Isobel Michaud**

Watershed Survey 2022

About 15 people from Wilson Lake, the WLA, interested parties, AWWA and Maine DEP conducted our decadal watershed survey for our lake on Saturday, April 30.

To understand what a "watershed" is, picture a big bowl with Wilson at the bottom. Any water that enters the bowl drains or "sheds" into the lake. Snowmelt and rain and streams drain down into the lake from the area outlined in yellow (see below).

This is Wilson's watershed: a four-square mile area that includes all the camp roads, a chunk of Route 109, and other area set back a bit from the lake. Wilson Lake is about 308 acres (~0.5miles²) which means an area 8 times as large as the lake affects water quality.

The purpose of the survey is to get eyes on as much of this watershed as possible to identify any potential areas of concern. For example, areas such as new sources of runoff, old sources that have not been addressed, and other items of concern such as pollution.

To refresh, runoff is one of the two biggest threats to our lake along with invasive plants.

What is runoff?



Runoff is the water that flows across the watershed and into the lake

With that runoff comes all the pollutants that cause algae blooms, cyanobacteria blooms, and other scary stuff.

In undeveloped areas, the water is filtered, slowed, trapped, and cleaned by the forest and plants. In developed areas, like our camps, much of that filtering plant life is missing.

When the water has a free and open run to the lake, **instead of being filtered it becomes a highway for pollutants** into our lake. The more development, the greater the runoff risk.

The survey team assembled at John Nadeau's airfield (thanks again John) where we sampled some Dunkin treats, broke up into groups and headed off to explore our sectors.

Those of you who were up at the lake that day would have seen us tromping around in our yellow vests, looking about, chatting with folks, and generally having fun on a chilly day.

Earlier surveys were done with pen and paper, and later with pen, paper, and cameras. This year we had an app (of course there is an app for that), that we could take pictures, make notes and have it all uploaded automatically. When all the data is crunched, we should have a nifty report with a current picture of the runoff situation.

With the information from the survey, we can compare to older surveys to track trends, notify the Town of Acton or State of Maine of any issues that are theirs to address, and help property owners address any runoff issues or questions they may have. Keep an eye on our website for the report. You can also find our 2010 Watershed Report there.

Doing these surveys is an important tool for us all to protect our lake. It gives us information, credibility with the Town and the State, and helps your lake association do its job—watching out for the lake we all love. Every one of us has an interest in keeping Wilson clean. We want to be able to swim in clean water and we want to maintain our property values.

Finally, take a minute to join the WLA. Your membership dues will help our volunteer board help you to keep Wilson Lake the wonderful clean refuge from the outside world that we all cherish. ~Eric Cook

Spring 2022 Water Quality Report

Hello to all at Wilson Lake and welcome to the 2022 season. My first water clarity readings this year took place on May 15th. The Secchi disk reading, which tests for water clarity, was 7.50 meters down (24.6 feet) which is almost one meter better than last year. The improvement is due to another slow winter melt (ice out was March 28th—one day earlier this year) and no severe rain storms. The lake stays clear if it does not experience a great inrush of water flow.

Water temperatures

Top of the water was 69.98°F; 54.5°F at 5 meters; 50.36°F at 7 meters; and 49.64°F at 13 meters (42 feet, close to the bottom of the lake!). When the ice melts the cold water on top drops to the bottom and causes the lake to turn. The thermocline changes its location in the water depth because of this action of the lake turning. Thermocline is a steep change in water temperature and a layer above and below this change area. On May 15th the thermocline was between 3-5 m.

Oxygen readings

Top of the water: 8.7 ug/L, 5 meters: ug/L, 7 meters: 9.8, 13 meters: 8.7 ug/L. The top and bottom readings are approximately equal which means this is the time of the year the water is circulating top to bottom (called spring turnover!). Later in the year, there is little oxygen at the bottom – typically 0.4 ug/L.

I also test for *Gloeotrichia echinulata* (Gloeo). This is a colonial cyanobacteria species that can lead to toxic blooms when there are too many nutrients in the lake. Fortunately, I have found none. We have a very clean lake.

Have fun on and around the lake this year! Best regards, ~Rich Chevalier

Plant Patrol Update

At this time, Wilson Lake continues to **be free of invasive aquatic plants**, while several other lakes in Maine **are newly infested**.

We have been stressing the importance for each of us living on the lake to be aware of the plants in the vicinity of our own properties, and we are happy to see that this is paying off. This year we have already received several calls to investigate suspicious plants that Wilson Lake property owners have noticed. Thankfully, all turned out to be native plants. Continue to watch your own shoreline as this year's plants emerge, and your invasive plant patrollers will be out too.

If you would like to learn more on your own, please visit our website or <u>lakestewardsofmaine</u> <u>.org</u> has an online video course, Invasive Plant Patrol 101 Part 3, "Will you know an aquatic invader when you see it?" is very informative.

~Wayne & Sharyn Reetz

Wilson Lake's Water Level

The WLA's mission is to protect the water quality of Wilson Lake. With our mission in mind, we have been working over the past several years to maintain consistent water levels while minimizing shoreline erosion.

In the spring, we keep the dam open to:

- A) Promote fish movement & protect loon nests (recommended by Inland Fish & Wildlife)
- B) Minimize spring flooding of shorelines and septics (recommended by Maine DEP)
- C) Allow folks to do spring shoreline maintenance/cleaning

In the summer (mid-May to mid-October), we use the dam to keep the lake artificially high for boating/recreation. In mid-October, we open up the dam to prepare for the winter ice and to allow fish movement.

The color-coded system (see below) is a handy visual we've been using for 4 years now. Our goal in the summer is to keep the water level within the "white" zone. Below the white mark means the target level is low. "Orange" is too high and could lead to significant shoreline erosion, particularly when big boat or storm waves hit. Orange for "open dam."

If a major rain and wind event such as a hurricane is forecasted, the dam may also be opened in advance of the storm even if the level is in the white. We can only lower the lake by about one inch per day in the summer with the dam opened, so an approaching hurricane may mean the dam is opened a couple of days in advance.



That said, water level maintenance is more of an art than a science with several factors to consider: e.g. inclement weather and how "charged" or wet the watershed is, and potential environmental impacts. This year is an example of the lake being lower than desired.

Earlier in the spring, there was quite a bit of rain and the water table remained wet and high. Then the weather became drier so the dam was closed early, on May 20th. For context, in recent wet years, the dam was not closed until around May 30th.

The lake level is slowly rising and as of June 5th has risen 3 inches. Once we get some rain, it will come up to our target level.

As you can see, there are many issues to consider and it is a bit of an art form with long range weather predictions involved. Our primary concern is first and foremost water quality—and for that we air on the side of lower rather than higher. While a bit inconvenient for boating, a lower water level reduces the potential for major shoreline erosion during high wind events, rain storms, waves, etc. and is therefore better for the lake water quality. If the lake water level becomes too high, some properties will become flooded and shoreline erosion will result from wave action. In fact, without the dam the natural lake level would be lower, and rocks could become a boating issue.

In the distant past the State of New Hampshire controlled Wilson Lake's water level for only one purpose—to power the mills downstream on the Salmon Falls River. Fish movement for spawning purposes was ignored. The dam was closed early to hold back water for later, and the early summer lake level was thus much higher than in more recent years when WLA was given control of the dam. Flooding occurred and water was one time witnessed high enough that Hawk Road was the shoreline. Septic systems were in the lake. In the summer, when needed, New Hampshire would remove the dam and the water level would become much lower by Labor Day weekend—much lower than it is even now in a dry summer. So, better water level consistency has been our goal, although long range weather forecasting (aka guessing) can disrupt that goal somewhat in either direction. ~John Nadeau

Loons

We have had two loons on the lake this spring so there may be nesting activity this year. Perhaps the one particularly noisy loon from last summer has found a mate! If you see loons nesting, please keep away. When disturbed they will leave the nest and the eggs will cool and die. If you see a loon making a racket, kicking up out of the water with wings flapping (not merely a one time "kick up, flap and stretch") that loon is disturbed and may have left the nest to attract you away. Please leave the area immediately. It is tempting to stay to watch the loon display in such a manner, but the loon is quite distressed and you may be interfering with nesting activity. FYI loons do the same display when fighting off eagles attempting to steal a loon chick for lunch. It's a tough life out there...

If you know of a loon nest, please call John Nadeau at 781-504-3143. He and Ann Marie are the Maine Audubon Loon Counters on Loon Day in July when all the loons in Maine are counted at the same time, rain or shine. Part of the count includes the location of any active nesting sites. So by calling John you will be contributing to the Loon Day Count and informing Maine Audubon.

Maine Audubon has had an annual loon count for over 35 years. We have participated in the Loon Count for Wilson Lake since the first count in 1983. Maine Audubon reports that the loon population is stable in Maine and that the chick population fluctuates. Our area seems to have a healthy loon population. In the recent years as many as 8-12 loons have been seen on Wilson

Lake when no nesting or chick raising occurs. Our "loon party lake" indicates a clean lake with good fishing.

But loons are very territorial when nesting and in the past Wilson Lake has supported only one nesting pair at a time. Fingers crossed that with our two loons, we will see chicks around the first of July! Thank you for watching out for our loons and for the information you have provided over the years. ~John Nadeau

AWWA: What's up in the Watershed?

With our sights set on the long-term health of Wilson Lake, and all the lakes in our watershed, the name of the game at the Acton Wakefield Watersheds Alliance for some time now has been watershed planning. Whether we're fixing erosion with our <u>Youth Conservation Corps (YCC)</u> crew, or teaching residents young and old about lake ecology and water quality, our primary focus has been on the vision we share with all of you: <u>to keep the water clean and healthy for future generation to enjoy as we do.</u>

Around 10 years ago, the WLA and AWWA collaborated to conduct a second watershed survey to identify erosion issues around the lake. This was compiled with water quality data from the other lakes in the region into the <u>Salmon Falls Headwater Lakes Watershed Management Plan</u>. This planning document was designed by state and federal agencies (like the EPA) to determine the health of a watershed and create water-quality goals for the future (copies are available on the AWWA website). The results spurred a great deal of interest in lake-friendly landscaping and camp road maintenance that has no doubt played a role in keeping Wilson lake clean.

Since the last survey, AWWA has developed 38 erosion control landscaping designs for Wilson Lake residents, 16 of which were installed by our YCC crew. Several large road updates were also done using grant funds. We estimate that all these projects have reduced the amount of sediment eroding into Wilson Lake by **22 tons per year.**

This spring, we helped conduct Wilson's 2022 survey. With help from regional water quality experts and Wilson Lake volunteers, we walked the entire shoreline in a day to determine how much erosion is getting into the lake. Getting an updated view of the watershed will allow us to see how far we have come in ten years, and what we need to do over the next ten.

Stay tuned for results from the report in the fall!

Wilson is a pristine lake, but this is not by accident.

You have been working hard as a community to keep it that way; lake and road associations, water samplers, weed watchers, YCC, and more. Everything comes together in a combined effort to preserve the natural beauty of our lake and watershed. Water Quality is a complex issue; it takes the whole community to understand it and have a meaningful impact.

As you enjoy the lake this summer, please remember that we are all responsible for keeping it healthy and must be stewards of this resource. A lake is an ecosystem and, much like a person, can be healthy or sick, and age gracefully or rapidly, depending on how it is treated and the level of stress it endures. Take good care of your lake. ~Jon Balanoff, Executive Director AWWA

- (p) 603-473-2500
- (e) info@awwatersheds.org
- (w) Awwatersheds.org

In memory of...

<u>Dan</u> and <u>Ruth</u> LeSaffre of Hawk Rd passed away on 12/26/21 and 3/9/22. Dan was WLA president for many years and both Dan and Ruth were very involved on Wilson and loved being at the lake sharing with family and friends.

Barbara Seckar of Eagle Road passed away 9/22/21. She spent countless hours volunteering in the community and in particular on the original Mary Grant Preserve Committee. She loved gardening, crafts and spending time with her large family.

Jesse Brooks of Wren Road passed away 1/7/2022. He retired as the Postmaster of the Epping NH post office. The epitome of a "gentleman" Jesse loved the time he spent at Wilson Lake.

Wilson Lake Gear is here! Short and Long Sleeve T's, Sweatshirts, and Children's too!





Check out our website or FB to click on links and getting your WLA gear today!

Barbara Caouette of Hummingbird Road passed away this June 2022.

To say that she loved Wilson Lake was an understatement. She and her husband Paul bought it from Mrs. Horn in 1970. It was her happy place to gather with family and friends. She enjoyed the open lot at the mouth of the cove with her husband and children. Later on (once she had too many grandchildren to fit in tents by the water), she built her camp.

She was always happiest on the water paddling around the shore or sitting on the dock. She loved the loons and calm mornings and all the people she got to see and become friends with. She will be missed dearly and the lake won't be the same without her. But her memory will live on through her love of the lake and in all the friends and family who came to love her favorite place along side her.

