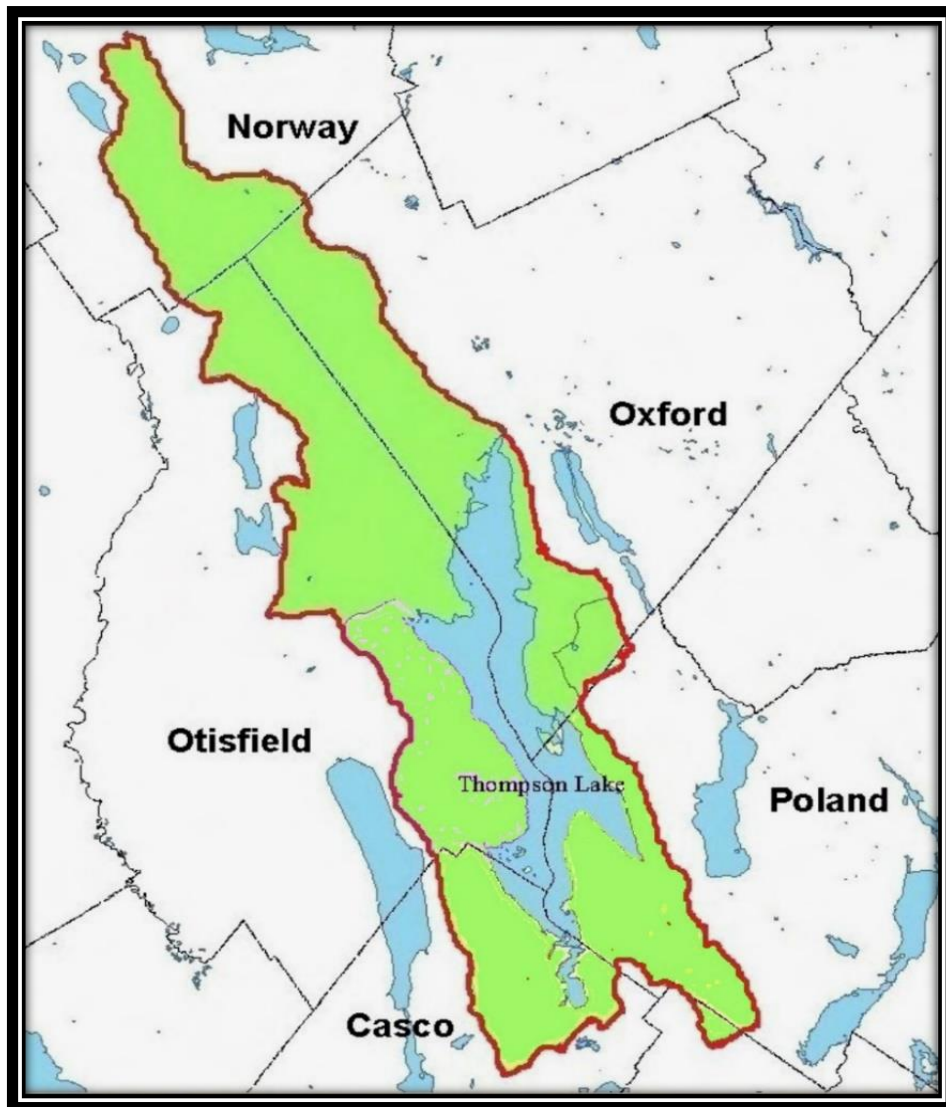


THE THOMPSON LAKE
OBSERVER

Spring 2023

Issue No. 199



Thompson Lake Watershed (Graphic by Bill Booth).

President's Message

(From Kathy Cain)

Greetings to all! Mud season is upon us, the peeper frogs are singing their nightly chorus and soon the loons will be returning to the lake. It's been a long winter with lots of snow in March, but we have turned the corner and soon the first boats of spring will be on the lake, trolling for salmon and togue. Returning snowbirds follow that, and then we are in full summer mode. It will be so good to see everyone out and about Thompson Lake again this year.

Our big news is that TLEA will be conducting a watershed survey of the entire lake this coming season! This is a very ambitious project; we have done watershed surveys in the past but typically they are done over 2-3 years. We feel we had the resources and the motivation to survey the entire watershed this spring and fall. The sooner we get this done, the sooner we can apply for funding for erosion control projects around the lake.

We all know how beautiful Thompson Lake is, but it has been listed by the Maine DEP as "Threatened", meaning that the water quality is at significant risk. The chief danger to the lake, especially in this warming climate, is erosion (also called non-point source pollution). Every drop of rain that runs into the lake rather than being absorbed into the ground carries contaminants such as phosphorus and nitrogen that can degrade water quality. These nutrients enhance the growth of algae which can lead to oxygen depletion in the lake, loss of fisheries and recurrent algae blooms. This is a major concern for many Maine lakes. An updated survey will allow us to do more erosion control projects to protect the lake.

The survey will be done in cooperation with Cumberland County Soil and Water Management District and the Maine DEP. It will provide us with the information to identify sites of erosion around the lake, develop a Watershed Management Plan that will, in turn, allow us to apply for federal grants to fund erosion control projects. This will be crucial in the years to come if we are to preserve the water quality of the lake. We are very excited about this effort, and we would like to get the entire Thompson Lake community involved. We will be asking for permission to inspect properties and work to educate landowners on where erosion is occurring,

if they are interested. Please consider volunteering for the survey. We need your help! Details of the survey are outlined later in this issue.

I am happy to say all our directors whose terms are up have agreed to continue with the board. We also have 2 excellent nominees for new directors, Danny Crowley of Oxford and Guy Roberge of the Thompson Lake Marina in Casco. We could not continue our vital programs without creative and helpful people like this. We are always looking for new board members to bring new ideas and energy to our association. *If you are interested in serving on our board, please contact us at mmtlea@gmail.com.*

As you can see, TLEA is hard at work protecting the resource of Thompson Lake. We thank all of you who have supported us over the years. Your generosity helps us fund the environmental programs that keep this lake one of the cleanest in the state. If you are reading this and are not a TLEA member, please sign up. Membership info is on our website: thompsonlake.org. or at the above email address. Enjoy your summer. See you around the lake!

TLEA Watershed Survey 2023

The watershed survey of Thompson Lake will take place on May 19, 20 and in the fall of 2023. This effort will be crucial in protecting the lake. This is because storm runoff that occurs due to erosion, depositing sediment and phosphorous into the water is the largest threat to the water quality of Thompson Lake. Phosphorous is a major nutrient for algae and as it accumulates in a body of water there will be an increase in algae growth, which can lead to less clear water, oxygen depletion and algal blooms. Even worse, decomposing algae at the bottom of a lake can become a source of phosphorous production, which makes elimination of the algae almost impossible. Thompson Lake is a “threatened” lake according to Maine DEP standards, mostly because of the effects of shoreline development and a slow flushing rate. Development of a watershed area results in smoothing of the land, creation of impervious surfaces such as driveways or lawns, and removal of vegetation which leads to larger and more rapid runoff.

Studies have shown that a developed watershed will result in 5- 10 times the amount of phosphorous in runoff compared to forested watershed. As an example, if a lakeside property has only a grass lawn as a buffer, 82% of stormwater will run

directly into the lake. If a similar property has 100 feet of vegetated buffer at the shoreline, the runoff is reduced to 27%. Increased runoff from developed areas can also lead to erosion of the shoreline, habitat damage, increase in invasive plants and ultimately, a decrease in the aesthetic value of the lake, as well as property damage.

TLEA has previously performed watershed surveys in 1994, 1999 and between 2008-2010. These were done in sections, ultimately surveying the entire watershed, and allowed us to apply for 319 grants in 4 phases. This resulted in the raising of \$362,871 of federal funds. These grants were matched at the 40% rate to result in total project funding of \$743,699 from 1999 to 2016. The surveys are valid for 10 years; to qualify for 319 grants in the future, we need to update our survey and develop a watershed protection plan.

The survey will take place on May 19 and 20, with additional days in the fall. We plan to send notices to all the property owners prior to the survey, explaining the intent of the survey and giving them an opportunity to opt out, if desired. The survey will be done with local volunteers, with guidance through Technical Leaders supplied by the Maine DEP and local Soil and Water Conservation Districts. The survey is optional, and the results will not be used for enforcement or regulatory purposes. Our volunteers will have sector maps that will indicate if an owner has opted out and will not inspect these properties. Prior to inspecting other properties volunteers will knock on the doors to request access if the owners are present.

All who enjoy and appreciate Thompson Lake will benefit from this program. ***If you are interested in becoming a watershed survey volunteer, contact Ken Mendelson at kenjoelle@gmail.com.*** Volunteers will need to attend a single 2-hour Zoom course on how to do property inspections prior to the survey that will be held Tuesday, May 16, 2:00- 4:00 PM and Wednesday, May 17, 6:00- 8:00 PM. These will be recorded for later viewing, if desired. We will meet as a group and inspections will be done with Technical Leaders, who will supervise and instruct us on how to assess properties and enter the data. This is an excellent way for you to give back to the lake and help ensure it will be a valuable resource for years to come. The experience should be informative, productive, and enjoyable, as we work together and have some fun on the side. Please join us!

Annual Meeting 2023

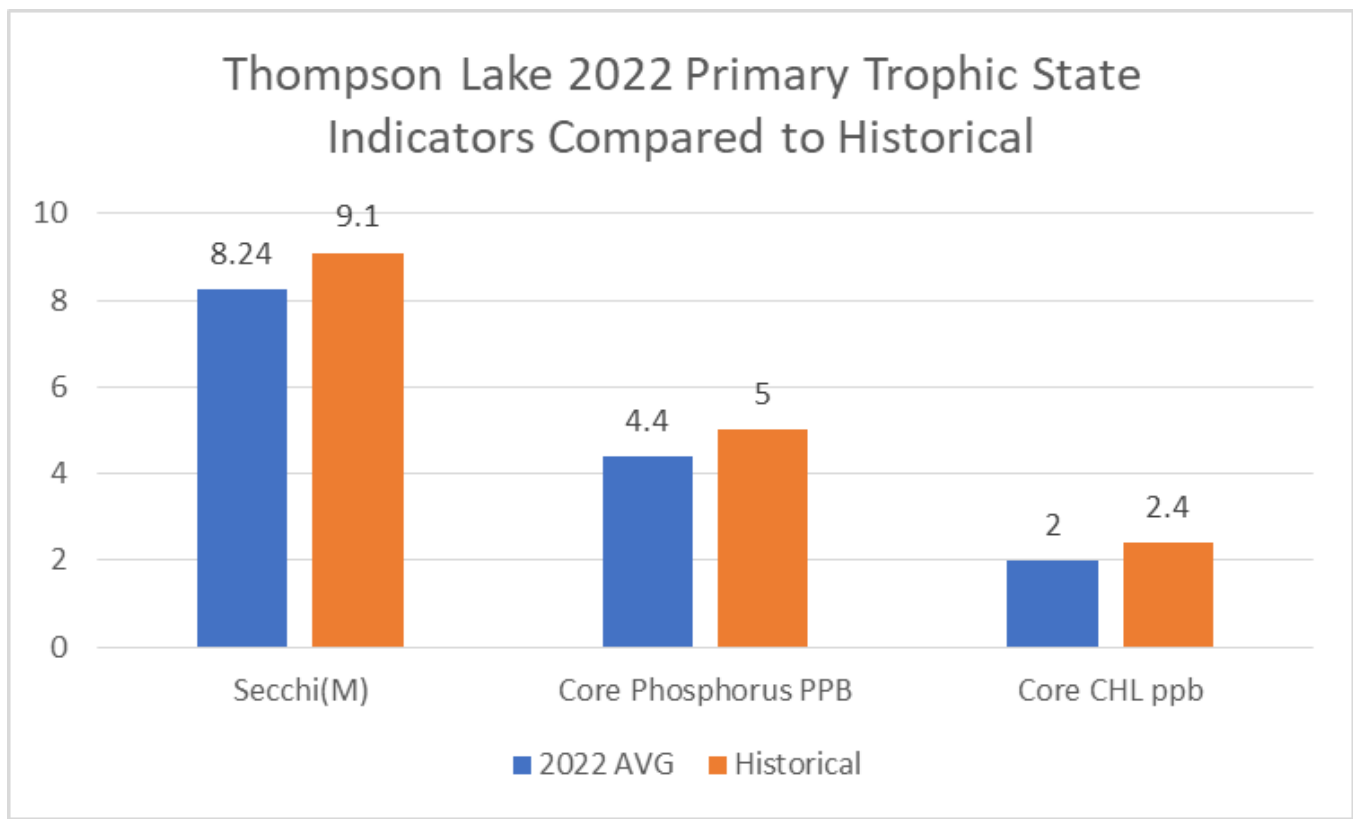
The Thompson Lake Environmental Association Annual meeting is planned to be held at the Oxford Recreational Hall, King St., on Saturday, August 5 from 9:00-11:00 AM. We will have progress reports on our programs, elections for board directors and we plan to have speaker on an environmental topic. New nominees for the board are: Danny Crowley and Guy Roberge. The directors up for re-election are: Bill Booth, Kathy Cain. Jade Doyle, Ken Mendelson, Sarah Rice, Sharon Rice and Peter Siebert. Kathy Cain will be stepping down as Co-President/ President for 14 years! Susan O’Byrne will also moving on from the Secretary position. Many thanks to both of them! Scott Williams, formerly Director of the Lake Stewards of Maine, will give a talk entitled “Maine Lakes in the Era of Climate Warming”. Mark this date on your calender to hear about the association, environmental issues involving the lake, and once again meet up with your neighbors and friends. As usual, there will be an assortment of baked goods and treats. What a great way to celebrate the lake and learn how we can protect it. See you there.

Thompson Lake Water Quality Report

Limnologist Scott Williams reports that Thompson Lake water quality indicators monitored in 2022 were close to the historical averages for the lake, although water clarity (Secchi Transparency) was slightly less clear – possibly due to the addition of a late October water clarity reading used in the calculation of the seasonal average. Phosphorus, the key nutrient that limits algal growth, and chlorophyll-a, which directly measures algal density, were slightly lower than the historical averages for the lake (*see graph below*). Late summer dissolved oxygen levels in the deepest area of the lake – long considered to be the “canary in the coal mine” for deep clear lakes, remained well within healthy limits to support Thompson’s vibrant cold-water fishery.

Scott noted that “natural variability”, which is influenced by weather, normal cyclical transitions of aquatic flora and fauna, and other factors, accounts for some of the variability in water quality indicators observed throughout the year. Continued gathering of data from the lake and its watershed over time is very helpful in the interpretation of this variability and is especially helpful in distinguishing changes due to natural phenomena from anthropogenic influences. Climate warming is a very

real threat to the ecological health of Maine’s lakes. Mid- summer lake water temperatures in the mid 80’s(F), combined with other weather extremes that have been documented in recent years, including intense, localized precipitation and runoff events, drought, reduced periods of ice cover, and other unusual meteorological phenomena pose a significant threat to relatively stable historical conditions in the lake.



During recent years, several lakes throughout Maine that were previously considered stable and with average to above average water quality have experienced measurable negative changes, characterized by declining water clarity. This usually has been caused by a proliferation of cyanobacteria/blue-green algae. The combination of the hydrologic sensitivity to phosphorus of individual lakes, watershed development pressures, and weather extremes, has appeared in some cases to have triggered the internal release of phosphorus from lake bottom sediments, which can result in an acceleration of algal growth. Once a lake exceeds its natural assimilative capacity, restoration may be difficult, uncertain, and very costly.

Even though Thompson remains one of Maine’s cleanest and clearest lakes, a warming climate has the potential to negatively affect lakes in several ways over time. Shorter periods of ice cover, record high summer water temperatures and a

longer growing season for algae and other lake plants, as well as the increase in severe weather, including soil-eroding storm events and extended periods of drought threaten our lake ecosystems.

Scott emphasized that ongoing efforts to protect Thompson Lake through aggressive watershed conservation initiatives will be essential to the long-term health of the lake. For the full report visit our website: www.thompsonlake.org.

LakeSmart Program

Ron Armontrout, director of our LakeSmart program, notes that homeowners can be proactive about protecting the lake from runoff pollution by signing up for a LakeSmart evaluation. LakeSmart is an educational and reward program that helps lakefront homeowners manage their landscapes to protect water quality. The program is free, non-regulatory, and voluntary. Participating homeowners receive individualized suggestions for keeping pollutants and stormwater out of Thompson Lake waters.

With the evaluation homeowners fill out a questionnaire which the team will use along with their own observations in a 5-part assessment. These parts are driveway and parking areas, outdoor structures, outdoor areas, shoreline buffer/water access, and buffer integrity. The homeowners will receive a written summary, along with suggestions for erosion control. The LakeSmart team performed 27 evaluations in 2021 and 24 in 2023. They will use this experience to move forward this summer with other evaluations. The team will be able to use the information from the watershed survey to advise landowners on erosion control projects and how they may qualify for 319 Grant funds. Landowners can also be referred to the YCC program for erosion control measures, if desired.

For interested homeowners, please contact Ron Armontrout, TLEA vice president, at director.tlea@gmail.com. The LakeSmart program is free to Thompson Lake homeowners, but due to the limited number of evaluators all requests will be handled on a first come first served basis as time permits this summer.

Youth Conservation Corps

Board Director Jim Skinner reports that our YCC Project Coordinator, Chris Stoechner is returning and is in the final stages of hiring two high school students for the 2023 season. Currently the YCC crew has 12 erosion control jobs lined up for the summer. Jim is continuing our efforts to create an internship program that would involve a college student from one of the local state universities. In addition, Jim will be at the Oxford Comprehensive High School job fair on April 27 to recruit other workers for YCC and the CBI program.

The YCC program will be an integral part of our watershed protection plan that will be based on our 2023 watershed survey. The plan will make us eligible to apply for 319 Grant money for funding for YCC. The crew can perform hand powered erosion control projects such as diversion ditches, razor bar installation, mulching and planting of vegetative buffers. This would apply to many private landowner properties. If you have an erosion problem on your lakeside property that you think may be appropriate contact Jim Skinner at fjames Skinner4@gmail.com.

Milfoil Removal

This upcoming season our milfoil removal crew will continue their hard work of plant removal and surveying. Much of their efforts will be directed towards searching for any regrowth of the milfoil colonies in the Pine Point area. As expected, there have been frequent levels of moderate regrowth in this area since the benthic barrier program concluded in 2021. The crew will also be spending a lot of their time at Robinson Dam and Pismo Beach area, hand pulling and suctioning milfoil patches that are dispersed throughout this region. Alex Bernardy and his crew will conduct their annual survey of the lake, focusing on the areas at high risk for milfoil and other invasive plant species.

Courtesy Boat Inspection

TLEA Board member Marcia Matuska reports that our Courtesy Boat Inspection (CBI) will be up and running again in 2023. The CBI program was started statewide in 2001 with the passage of “The Act to Prevent Infestation of Invasive Aquatic Plants and to Control other Invasive Species” by the Maine State Legislature. This act was the most comprehensive in the country. It instituted the Lake and River

Protection sticker which funded 3 new DEP positions, 6 new game wardens, 1 biologist, the Rapid Response program and the CBI and Plant Grants. Initially, the focus was primarily on invasive plants and the message was “remove all plants”. Now the message is clean, drain and dry to prevent the infestation of both invasive plants *and* animals. Since its inception, the number of inspections has grown to close to 100,000 annually across the state.

In 2022, TLEA courtesy boat inspectors were stationed at all 4 public ramps over the weekends from Memorial Day weekend through Labor Day. 1251 boats were inspected, and 7 fragments were removed. This year, we have 3 returning inspectors and need 2 more. Courtesy boat inspection is a part-time laid-back position. *If anyone is interested in applying for the remaining positions, please email Marcia Matuska at mmtlea@gmail.com.*

TLEA Website

Our website is going through an extensive upgrade. In mid-April, TLEA members and the public will be able to go to www.thompsonlake.org to get the latest updates about what’s happening with TLEA programs, including the watershed survey, our 10+ year efforts to remove milfoil and other non-native invasive plants, the Youth Conservation Corps, LakeSmart, Courtesy Boat Inspections, water quality testing, our annual loon count and more. Members will also be able to securely renew their membership online using various methods of payment. And, of course, members will always be able to renew by mailing a check as well.

The website will also include a history of the lake and of TLEA, information about the Oxford Dam and water levels, fishing, water quality reports and information about TLEA’s Annual Meeting and ice out contest results. There will be many photos of the lake and updates on events around the lake. Our goal is to make the website fun, informative and useful.

Being informed is the best way for you to do your part to preserve Thompson Lake for generations to come, and we look forward to your feedback about our new website.

Membership Report

Bill Booth of our Membership Committee reports that so far, about 310 TLEA members have renewed their memberships for 2023. We still have over 200 members who haven't renewed, but we are hoping to hear from them before our summer season begins. *If you haven't renewed yet, please do so by..... We cannot continue our programs without your support. Thank you!*

Membership dues can be sent to: TLEA, PO Box 25, Oxford, Maine 04270. membership levels are: Individual-\$35, Family-\$55 and Benefactor-\$105.

Funding for Maine Lakes

Maine lawmakers are considering a bill that would provide an 18 million dollars to fund the Lake Restoration and Protection fund, which provides matching funds for environmental projects to preserve the quality of Maine lakes. This program has been under funded since it's inception in 1987. Lawmakers heard testimony from many lake associations, including TLEA, on the importance of this bill. Special thanks to TLEA member Nancy Corkum, who offered her own personal perspective: "Please invest in the healthy future of Maine lakes today to protect local economies, outdoor tourism, sporting and recreational businesses, drinking water supplies, wildlife habitat and so much more for all who use lakes now and in the future". Well said, Nancy!

Briefly Noted:

Ice Out Winners: Congratulations go out to our ice out winners: Nick Cain, Kari Price-Cain, Scott & Pam Larsen, Ronald & Kathleen Harbour, Rob & Rachel Lutts who chose April 12. Ice out is officially when a boat can be navigated through the middle portion of the lake, from the Casco boat launch to Pismo Beach, Oxford.

Loon Count: Our loon count for the lake will be held on Saturday, July 15. Contact Peggy Dorf at peggydorf@ymail.com if you can help as a counter.

In Memoriam: Bob Tracy

We regret to announce that Bob Tracy, a former TLEA Board member and long time resident at Thompson Lake passed away this past year. Bob served on the board for 14 years; as Secretary, taking Secchi disc readings throughout many summers and maintaining our office trailer in Oxford.

Bob, his wife June and their 3 children spent many summers at their camp in Otisfield, enjoying the beauty and peacefulness of the lake. Bob was an educator, a craftsman, hunter and computer whiz. He especially enjoyed photography and often had his photos of the lake on the cover of our Observers. He also served on the Otisfield Volunteer Fire Department and Otisfield Historical Society.

We will always remember Bob's smiling face, his gentle humor and the work he did to help protect the lake that he cherished. He will be missed.



Board member Bob Tracy

For Observer comments or submissions, contact: paulrcain67@gmail.com

Visit our website at:
www.thompsonlake.org

Thompson Lake Environmental Association
P.O. Box 25
Oxford, ME 04270

ELECTRONIC SERVICE REQUESTED



Complimentary Copy

TLEA Members receive three Editions of the OBSERVER yearly.

Join Today!

- \$35 Individual
- \$50 Family
- \$105 Benefactor