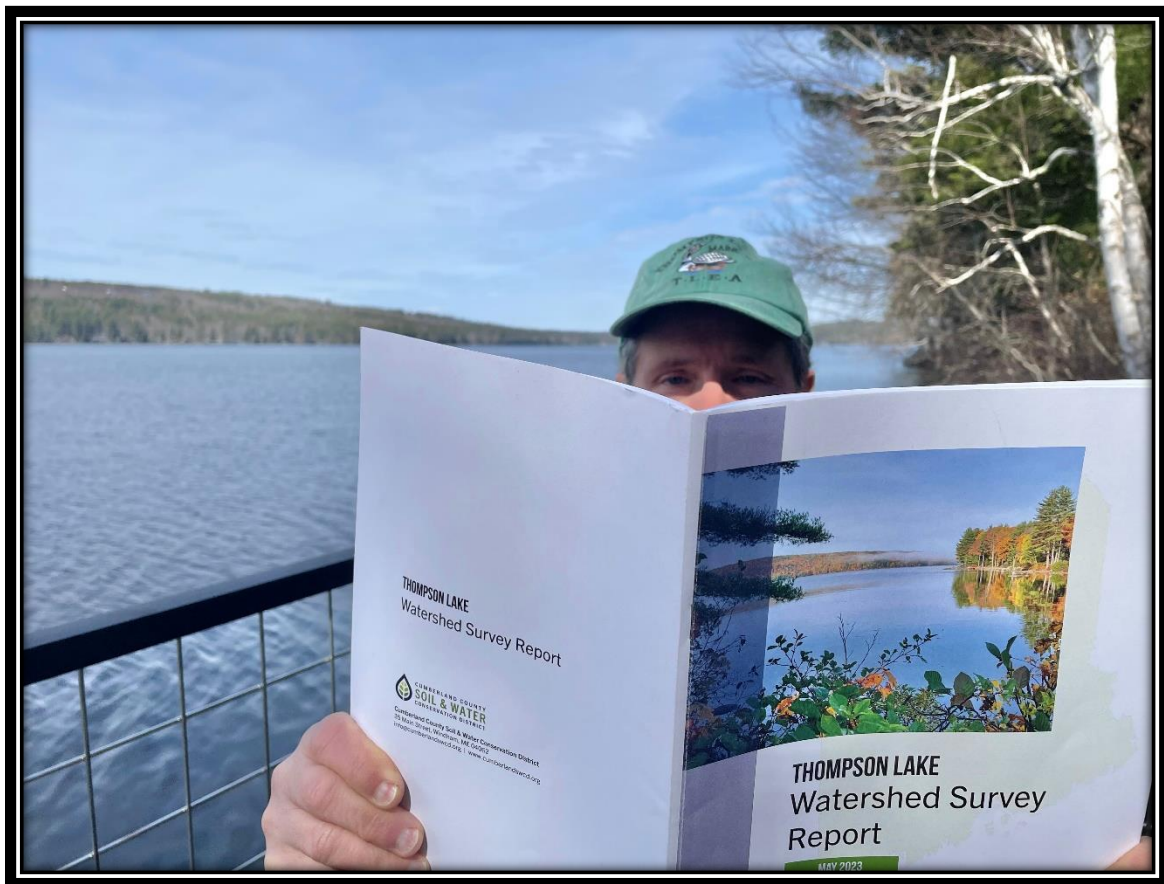


THE THOMPSON LAKE  
OBSERVER

Spring 2024

Issue No. 202



*Read all about it—TLEA Watershed Survey report!*

## President's Message

(From Ron Armontrout)

Greetings to all! An early mud season is upon us, and we have experienced a record-breaking early ice out. Ducks are back on the open water and soon the loons will be returning to the lake. It's been a mild winter with some snow in January and February, but we got slammed with snow in March. My neighbors did get in some ice fishing, but they did not venture out too far onto the relatively thin ice. The mild temperatures are giving me spring fever and making me think about this summer's LakeSmart evaluations.

We have two new members of our LakeSmart evaluation team. New director Brian Bond and a previous LakeSmart property owner, Cary Phoenix, are starting the training. We look forward to working with them this summer. Interested in a LakeSmart property evaluation? Please contact me at [director.tlea@gmail.com](mailto:director.tlea@gmail.com) and I will put you on the schedule. It will be so good to meet new people as we go out and about Thompson Lake again this year.

TLEA completed the ambitious watershed survey of the entire lake in 2023, and the 319 Grant Steering Committee has worked with the Maine DEP and local Soil and Water Conservation districts to develop our Watershed Protection Plan for the lake which will be in effect for the next 10 years. Past President Kathy Cain wrote in a previous Observer, "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." We are committed to eliminating as much of this runoff as possible through our LakeSmart and revitalized YCC programs. We are looking into funding through the Federal 319 Grant program to support these erosion control projects. These programs, that are primarily supported through

donations from our members, will be crucial in the years to come if we are to preserve the water quality of the lake.

I am happy to say that Alex Bernardy and his dive team have signed on for another summer of milfoil work. Their outstanding efforts have already removed over 500 tons of milfoil from Thompson Lake. This summer they will survey the entire lakeshore and hand pull any plants they find. Wave to them as they cruise by on the TLEA Hippo!

We could not continue our vital programs without creative and helpful people to serve on our board. We are already working with a new board member, Brian Bond, who is becoming an outstanding director. 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 me at [director.tlea@gmail.com](mailto:director.tlea@gmail.com). Being a board member enables you to give back to the lake and develop new relationships. We have a good time together, and as you can see, we are hard at work protecting the resource of Thompson Lake.

We thank you for the support you have given 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](http://thompsonlake.org). or at the above email address. Enjoy your summer. See you around the lake!

## **Annual Meeting 2024**

The Thompson Lake Environmental Association Annual meeting will be held at the Oxford Recreational Hall, King St. on Saturday, August 3, 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: Brian Bond and Betsy Peterson. The directors up for re-election are: Bill Booth, Kathy Cain, Hobart Hardej, Ken Mendelson, Candace Nelson, Sarah Rice, Sharon Rice, Peter Siebert and Jade Doyle. Officers with terms to the 2025 Annual Meeting will be President: Ron Armontrout, Vice President: Hobart Hardej, Treasurer: Jade Doyle, and Secretary: Candace Nelson. We will also have a vote on proposed

bylaws revisions. Mark this date on your calendar! 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!

## **2023 Watershed Survey, Protection Plan and 319 Grants**

TLEA is proud to say that we completed a survey of our entire watershed in early 2023. *THANK YOU!* to all of you who donated your time to this survey. Thompson Lake is considered 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. This includes roads with poor drainage, improper grading and inadequate culverts. When storms occur, which are in increasing frequency, runoff occurs depositing soil sediment and phosphorous into the lake. This type of non-point source pollution water is the largest threat to the water quality of Thompson Lake. Phosphorous is a major nutrient for algae and can lead to algal blooms, less clear water, and oxygen depletion. Even worse, decomposing algae at the bottom of a lake can become an internal source of phosphorous production, which makes elimination of the algae almost impossible.

TLEA has been hard at work compiling the results of the survey and formulating a plan to mitigate non-point source pollution of the lake. Through the services of the Cumberland Soil and Water Conservation District, we developed a Watershed Survey Report, which was mailed this past winter to all owners of properties within the watershed that had medium or high erosion sites. This very informative booklet included information on the impact level of the erosion sites, recommendations on how to mitigate the effects, and the complexity and expense involved. Landowners were encouraged to address these erosion sites and local resources, including our YCC program, were pointed out. The report is also available at our website, [thompsonlake.org](http://thompsonlake.org). A map of the survey results is on the back page of this issue.

The data from the survey was then used to develop our Watershed Protection Plan which was submitted to the Maine DEP and the federal Environmental Protection Association this spring. This plan has been approved, which qualifies TLEA,

property owners, and the local towns to apply for federal funds for these types of erosion control projects. This could significantly reduce the cost of YCC projects, road improvement, culvert replacement and placement of vegetative buffers. The Watershed Protection Plan will qualify Thompson Lake for these funds for the next 10 years!

The 319 Grant applications are submitted every 2 years, including combined projects that encompass 2 years. The grant applications will be developed and managed through the Androscoggin Soil and Water Conservation District. The first cycle of grant applications is due in May of 2024. The Watershed Protection Plan will allow us to conduct 5 cycles of these grants to improve our watershed. If you, your town, or a road association is interested in taking advantage of this program, contact Paul Cain at [tleawatershed2023@gmail.com](mailto:tleawatershed2023@gmail.com). What a great way to protect the lake and reduce costs!

## **Thompson Lake Water Quality Report**

*(From Limnologist Scott Williams, Lake & Watershed Associates)*

Thompson Lake water quality was monitored from May through September 2023 by LWRMA staff and TLEA Certified Volunteer Lake Monitor, Paul Cain. This report summarizes and analyzes the findings of the data gathered during the period. Indicators of lake water quality are affected by several influences, including the natural features of individual lakes, development in a lake's watershed, and weather, which typically has a significant bearing on the seasonal and annual variability of water quality. Accurate long-term trends in the overall health of a lake require extensive data to be able to identify trends with confidence.

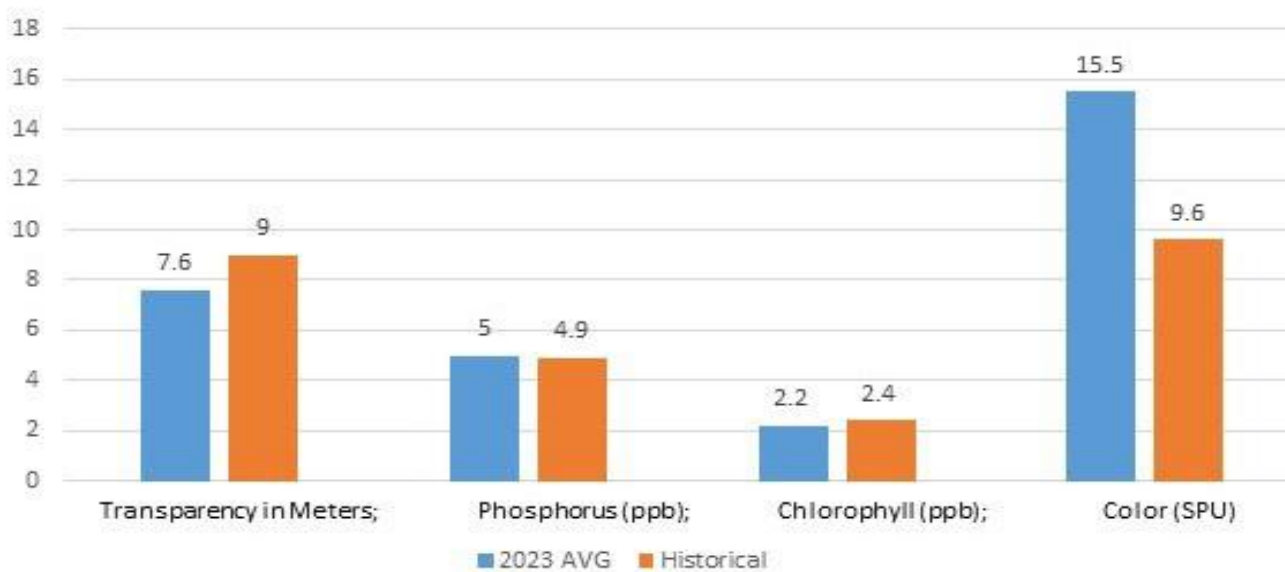
The weather during the 2023 lake monitoring period will not be soon forgotten. Rain was frequent, and often intense during this period. Central and Southwestern Maine experienced one of the wettest years on record. Rain events produce stormwater runoff from lake watersheds. The long-term effects of the 2023 weather may not be evident for some time.

Overall, Thompson was significantly less clear – an important indicator of water quality - than the historical average for the lake., even though phosphorus, the key nutrient that limits algal growth, - and water clarity, as well as chlorophyll-a, which directly measures algal density, were both very close to their historical averages.

The apparent discrepancy between these major indicators was likely because the concentration of natural color, which is a measure of the organic “humic” compounds from degraded plant matter in wetlands and the watershed, was the highest on record for the lake, during the months of June, July and August. The “root beer’ or tea-like color imparted by these natural compounds can, among other influences, significantly reduce water clarity. An unusually high color was documented in many Maine lakes in 2023, due to the constant flushing of natural decomposed organic matter from their watersheds, caused by the unusual volume and intensity of stormwater runoff during the period.

Water that is colored absorbs greater solar radiation, causing lake water temperature to increase. Surface water temperatures measured at the deepest location in the lake peaked in late July at 26.6 degrees C (79.9 degrees F). Summer surface temperatures in Maine lakes have risen into the low to mid 80’s F in recent years (MDEP Data Summaries for Maine Lakes). Such high temperatures can result in multiple negative effects on lake ecosystems. Fortunately, surface temperatures in Thompson, as well as lakes throughout the region dropped significantly in August and September, due to the nearly constant cloud cover and dropping ambient temperatures during the period.

Thompson Lake 2023 Primary Trophic State and Color Averages, Compared to Historical



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, was moderately



low in late August, consistent with levels measured in recent years during the late summer. However, except for the very deepest readings (30-33 Meters depth) at that time, oxygen levels remained high enough throughout the deep (and cold) region of the lake basin to adequately support the healthy coldwater fishery. Because Thompson is a deep lake that typically remains stratified late in the fall months before “turning over” (mixing), future monitoring of the lake should periodically be done in late October to determine dissolved oxygen levels at that time.

Thompson remains one of Maine’s cleanest and clearest lakes. However, a warming climate has the potential to significantly change the lake over time. Shorter periods of ice cover, record high summer water temperatures, a longer growing season for algae and other lake plants; as well as an increase in severe weather, ranging from soil-eroding storm events to extended periods of drought will almost certainly adversely affect lake ecosystems. *Ongoing efforts to protect the lake through aggressive watershed conservation initiatives will be essential to the continued long-term health of the lake.*

For the full report visit our website: [www.thompsonlake.org](http://www.thompsonlake.org).

## **LakeSmart Program**

Our LakeSmart program, directed by Ron Armontrout, will once again be inspecting lakeside properties by request. LakeSmart is an educational and reward program that helps lakefront homeowners manage their landscapes to protect water quality. The team performed 24 inspections in 2023. The program is free, non-regulatory, and voluntary. Participating homeowners receive individualized suggestions for keeping pollutants and stormwater out of Thompson Lake waters.

The homeowners will receive a summary of the inspection, along with suggestions for erosion control. The team will 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.

LakeSmart will also be part of our Build Better Buffers program which is described more in this issue. This will be an opportunity to have an expert guide you in

enhancing your landscape and building effective vegetative buffers. More on this later.....

For interested homeowners, contact Ron Armontrout at [director.tlea@gmail.com](mailto: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.

## **Youth Conservation Corps**

Board Director Jim Skinner reports that our YCC Project Coordinator, Chris Stoeher, will once again be leading the crew this summer. We are hoping to expand the crew in 2024. The YCC program will be an integral part of our Watershed Protection Plan and 319 Grant Program. TLEA is working on funding for YCC through these grants so we can expand services and reduce costs to landowners. This YCC program was started through a 319 grant in 2002, so we are happy to return to this type of support. The YCC crew can perform hand powered erosion control projects such as diversion ditches, razor bar installation, mulching and planting of vegetative buffers. If you have an erosion problem on your lakeside property you think would be appropriate for YCC, contact Jim Skinner at [tlea.yccdirector@gmail.com](mailto:tlea.yccdirector@gmail.com).

## **Build Better Buffers**

Another aspect of the YCC and LakeSmart programs is our Build Better Buffers program, a collaborative effort with McLaughlin Garden and Homestead (South Paris). TLEA members who have completed our LakeSmart assessment can have a McLaughlin Garden horticulturist visit your property and create a native planting plan for your property. This program is a fee for service offering with pricing starting at \$185 (payable to McLaughlin Garden) which includes a one-hour visit, a subsequent written plan, soil sampling (via Maine Extension Service) and a one-year membership at McLaughlin Garden. This also includes an optional visit by our YCC Director or staff to educate landowners on planting practices that conform to accepted DEP regulations. The plantings then can be done by the landowners, our YCC, or a Maine DEP certified landscaper of your choice. The assessment will



qualify you for a 10% discount for plants purchased at McLaughlin Gardens. This new program will assist landowners implement the erosion control measures recommended through the LakeSmart assessment. What a wonderful way to work the soil, have your garden buffer area come beautifully alive, and protect the water quality of the lake. If you are interested in this program call Jim Skinner at 207-329-3068 or email him at [tlea.yccdirector@gmail.com](mailto:tlea.yccdirector@gmail.com)

## **Milfoil Removal**

TLEA Vice President Hobart Hardej is now the chair of the Water Quality/Invasive Species Committee. Hobart is joined this year by new board member Brian Bond, who will serve as the director of the milfoil removal program. The team recently met with Alex Bernardy to plan for the milfoil abatement and invasive species monitoring for 2024.

Our milfoil removal efforts have been very successful over the years. For 2024 the team will concentrate on hand pulling of milfoil, primarily at the northern end of the lake; namely Pine Point, Pismo Beach, Oxford dam area and Briggs Island. As usual, the team will conduct a full survey of the lake to check for any signs of regrowth of milfoil or introduction of new invasive plant species.

Alex will be training a new team this year and we have applied for Maine DEP grant to support this program. Our Hippobottomus pontoon boat remains in good condition and will transport the divers throughout the lake. Hobart points out that Alex has provided exceptional leadership and expertise, as his crews have removed hundreds of tons of milfoil from the lake. On behalf of all lakefront owners, TLEA is very appreciative of his efforts over the years.

## **Courtesy Boat Inspection**

TLEA Board member Danny Crowley reports that our Courtesy Boat Inspection (CBI) will be up and running again in 2024. In 2023 there were 1,161 inspections performed at the 4 public boat launches. Thankfully, only 7 plants were found on watercraft, none of which were invasive. The inspectors spend much of their time educating boat owners on the threat of invasive species, as well as how to inspect and drain their boats.

TLEA plans to staff the local public boat launches for inspections on weekends and most holidays. *It is important to note that, as of 2024, by state law all boats must have drain plugs removed before entering a boat ramp or CBI area.* The intent is that all boats are drained before and after they enter a lake. Courtesy boat inspection is a part-time, paid position. Danny will be at the Job Fair at Oxford Hills High School on April 23, looking for inspectors. If anyone is interested in applying for the remaining positions, please email Danny Crowley at [dannycrowley@sbcglobal.net](mailto:dannycrowley@sbcglobal.net).

## **Membership Report**

Bill Booth of our Membership Committee reports that we ended 2023 with 525 current TLEA members. As of end of February, 313 members had renewed their membership for 2023, versus 318 at the same time last year. For 50 years, TLEA has worked hard to protect and preserve this special lake for visitors and especially for the 1000+ property owners, but about 500 owners have never joined TLEA despite our many efforts. *So please take a moment and ask your neighbors on the lake to help us continue our work.* Help us hit a new record for 2024 members!!

Membership dues can be sent to: TLEA, PO Box 25, Oxford, Maine 04270, or to our website at [thompsonlake.org](http://thompsonlake.org). Membership levels are: Individual-\$35, Family-\$55 and Benefactor-\$105.

## **TLEA Opportunities**

TLEA has opportunities for employment and board positions for 2024 and beyond. We are presently recruiting an Administrator. This will be a paid, part-time position to assist our directors with operations. We are looking for a motivated, multifaceted individual with organizational and computer skills, and an interest in helping us protect the local environment. Anyone interested in applying for this position should contact us at [hr.tlea1@gmail.com](mailto:hr.tlea1@gmail.com).

TLEA is also looking for a prospective board member to serve as Treasurer for the Association. This person should have a knowledge of basic accounting principles and financial statements. If you have these skills and would like to support our

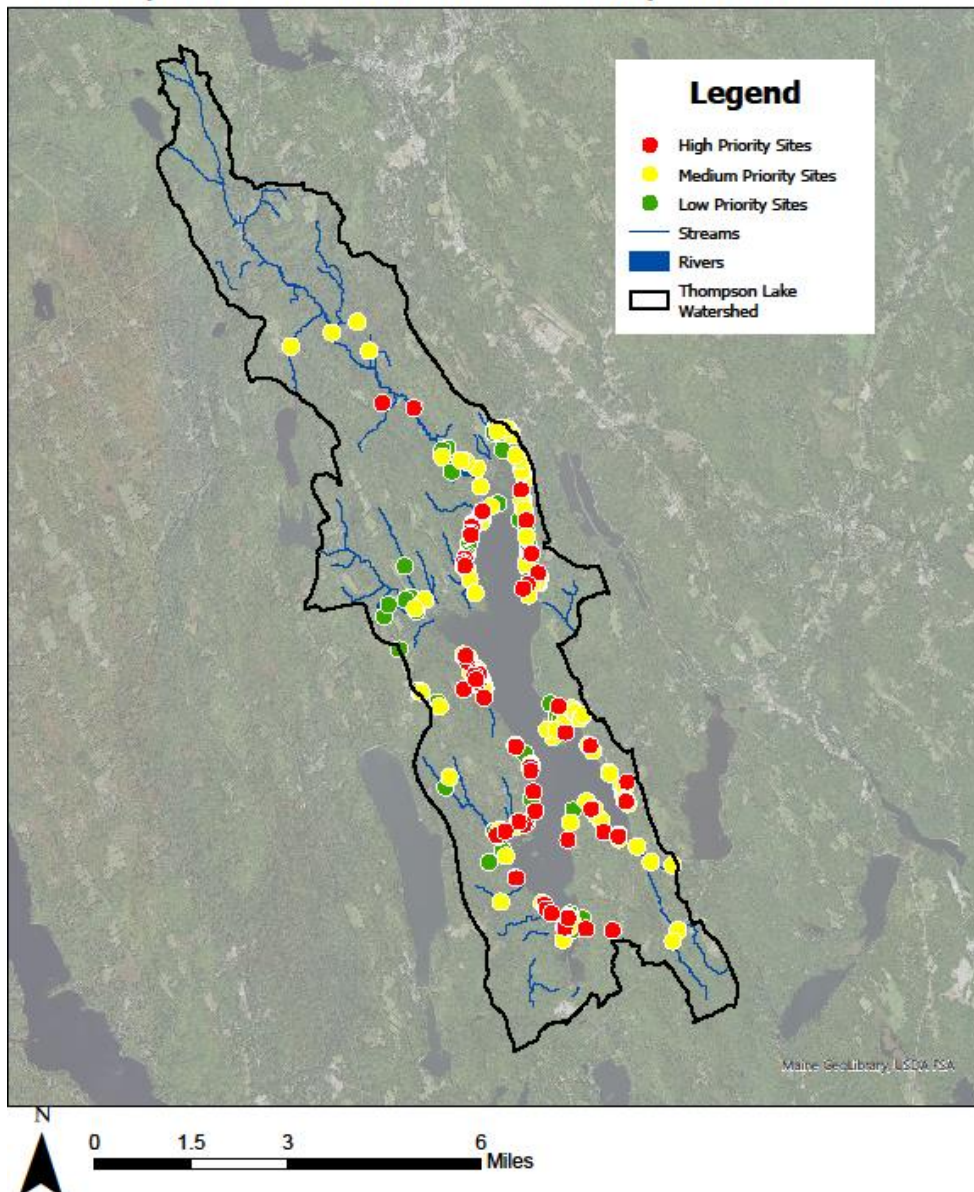
work, TLEA would welcome you to join the board. If interested, please contact Ron Armontrout at [director.tlea@gmail.com](mailto:director.tlea@gmail.com). This would be very much appreciated!

### *Briefly Noted:*

**Ice Out Winners:** Congratulations go out to our ice out winners Denis Hanson/Nora Cameron and Mitchell Skinner. Ice out was officially March 15. Ice out is called when a boat can be navigated through the middle portion of the lake from the Casco marina boat launch to Pismo Beach, Oxford.

**Loon Count:** Our loon count for the lake will be held on Saturday, July 20. Contact Peggy Dorf at [peggydorf@ymail.com](mailto:peggydorf@ymail.com) if you can help as a loon counter.

### Thompson Lake Watershed Survey 2023 Results



Visit our website at:  
[www.thompsonlake.org](http://www.thompsonlake.org)

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