

THE THOMPSON LAKE
OBSERVER

Fall 2020

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Oxford dam. Middle and west gate are drained for renovations.

Report on Milfoil Removal 2020

Milfoil removal crew chief Alex Bernardy reports that 2020 was one of the most productive years in their efforts to remove milfoil and other invasive plants from the lake. Most of their time was spent at the Pine Point and Pismo beach areas, while also inspecting and monitoring the other coves of the lake.

All the dense milfoil growth at the Pine Point area has now been removed. This is remarkable, considering that in recent past there were 10 acres of infestation there. Boat traffic in this area was causing fragmentation and migration of the milfoil to other parts of the lake. The removal was accomplished by the labor-intensive means of placement of benthic barriers (tarps) and diver assisted suction harvesting (DASH) with the use of the “Hippobottomus” pontoon boat. Our crew will continue to monitor this area to ensure that there is no significant regrowth. All the benthic barriers have been removed, so this area is clear for safe boating.

At the Pismo beach and Oxford dam area multiple milfoil colonies were identified and removed with benthic barriers. This included colonies around the Robinson Marina. There are still some scattered colonies in this area and this will be a focus of the milfoil crew in 2021.

The crew also discovered some new milfoil colonies at the Brigg’s island causeway which were removed.

The crew performs an annual survey for invasive plant species at all boat ramps and high-risk areas of the lake in the late summer. No new plant colonies were found. The Edwards, Otisfield and Hancock coves were monitored throughout the season. These coves once had 1-2 acres of milfoil each, they are now clear of significant colonies and without regrowth.

The Maine Department of Environmental Protection (DEP) requires an annual inspection of our work. Karen Hahnel of the Invasive Aquatic Species Program, toured with Alex on August 28, 2020 to check on TLEA’s efforts battling milfoil. Alex took Karen to multiple sites in the northern part of the lake, pointing out the tarp installations that were still in place and the return of native lake vegetation which had been previously choked out by the blankets of milfoil. For the first time in many years, no milfoil was visible in these shallow areas of the lake. Karen was impressed at the marked improvement in the Pine Point area and stated that Alex the crew “have done a good job...and had clearly figured out how to deal with

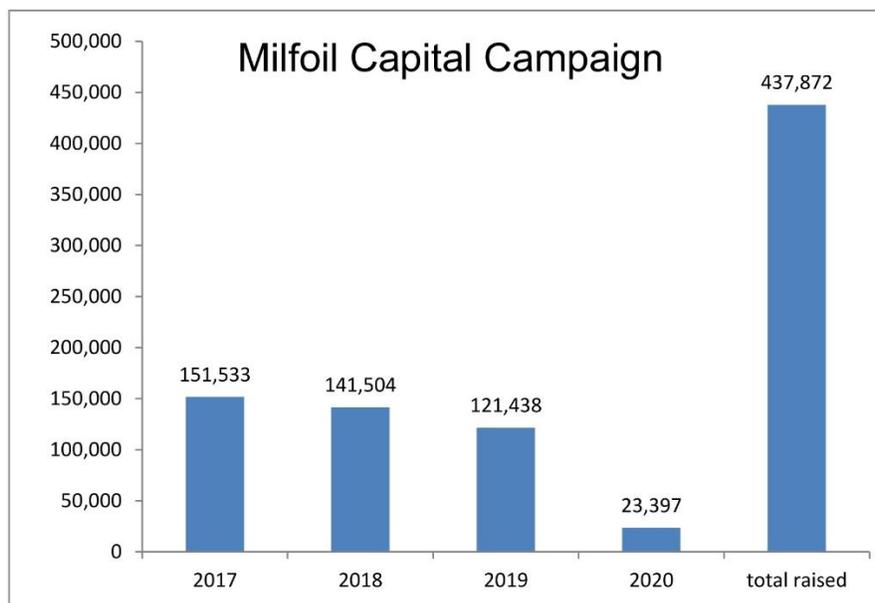
variable leaf milfoil”. Noting that there were no longer significant plant colonies in this area she recommended that the focus should now be to survey and manage the affected areas of the lake to prevent regrowth.

TLEA is committed to a comprehensive program of surveying and removing invasive plants from Thompson Lake in the future. Our plan for 2021 is to continue to monitor the previously remediated areas throughout the lake and manage some anticipated regrowth areas. Our divers always spend the first weeks on the lake inspecting sites of prior infestations in Poland, Casco and Otisfield and hand pulling the few plants that have regrown. Much of the crew’s time will be spent in the Pismo Beach and Oxford dam area where there are residual plant colonies and significant boat activity that could result in fragmentation of milfoil which could potentially lead to growth of new colonies in other areas of the lake.

Thanks to the generous donations of those who contributed to the Capital Campaign and the hard work of our milfoil removal crew we are winning the battle against this invasive plant, which remains a threat to all Maine lakes.

Capital Campaign

Our success in milfoil and other invasive plant removal was made possible by our Capital Campaign which was kicked off in 2017. The campaign, which focused on the area of dense infestation at the Pine Point area has now come to an end. The milfoil mitigation program will continue as we monitor the areas of the lake that are vulnerable to milfoil and remove plants. We must remain vigilant in this effort or these plants will have a resurgence. An ounce of milfoil removal now can prevent the need for pounds of removal later.



As the above graph shows, the campaign raised over \$400,000 dollars for this effort over 4 years. In addition, some TLEA members collectively donated \$104,641 to our milfoil fund with their annual dues, putting us well over our goal of \$500,000 for this program. A hearty “*Thank you*” to all who contributed to this campaign. You have helped make Thompson Lake even better. Please keep in mind that we will need to continue to fund this program and you can contribute to this effort when you pay your membership dues. There is a separate allocation line for milfoil contributions.

Courtesy Boat Inspection

The Courtesy Boat Inspection (CBI) program is essential in preventing the introduction of invasive plant species in Thompson Lake. Our inspectors take shifts inspecting boats entering or leaving the main boat launches on the lake during summer weekends and holidays. Courtesy Boat Inspection 2020 was certainly unusual. Our inspectors were required to wear masks and to inspect the boats without touching them unless a plant needed to be removed. Fortunately, they could still accomplish the most important part of their job: reminding boaters to inspect their boats every time before they enter and after they leave the water. We had excellent CBI inspectors this year with 3 were returning from 2019.

There were many more inspections this year; 1510 inspections, compared to 1236 in 2019 and 986 in 2018. Ten invasive plants were detected in 2020 and removed from watercraft. Only 2 were invasive variable leaf milfoil and these were from boats leaving the lake.

Invasive species remains a growing threat to Maine lakes. CBI’s on Kezar Lake removed Eurasian milfoil from the trailer of an out of state boat and plant patrollers found European Frogbit in Pitcher Pond and Brittle naiad in Lake Arrowhead. The Courtesy Boat Inspection is the most effective way to keep invasive species out of the lake. Remember to thank your inspector if you see them at our launches! And a special thanks to Marcia Matuska who directs this program and provided this report.

Youth Conservation Corp

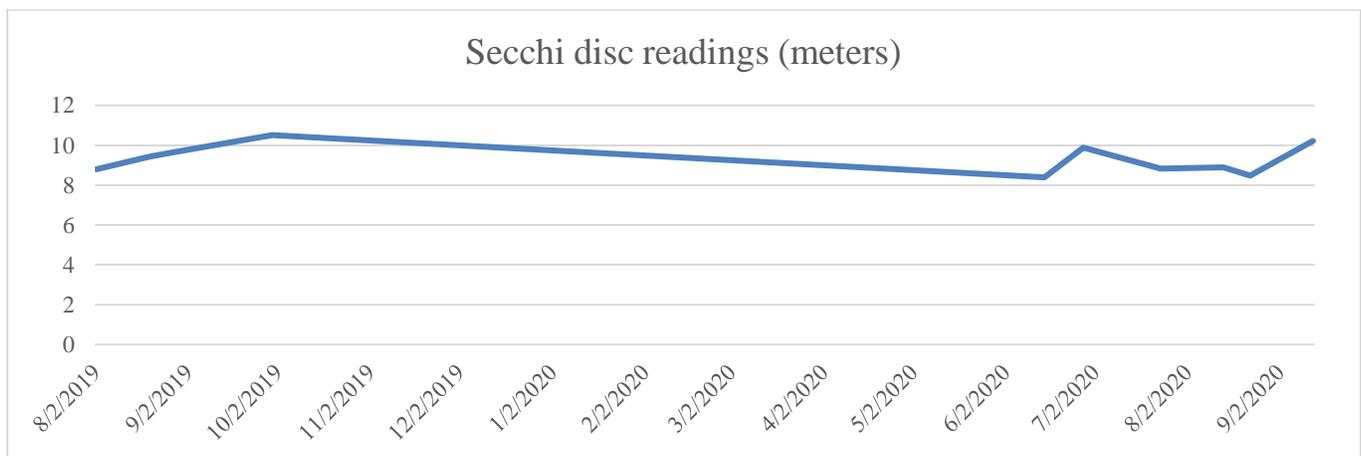
Our Youth Conservation Corp (YCC) constructs erosion control measures for property owners throughout the lake. Phosphorous run off from erosion is the biggest threat to the water quality of the lake. Board members Marcia Matuska and Jim Skinner have devoted much time and energy into reshaping this program. Unfortunately, because of COVID-19 concerns, construction projects are on hold.

We are presently looking at ways that we can improve this program. Jim and Marcia have been working with the University of Southern Maine to develop an internship program. Our goals are to provide an educational program for our workers and property owners, as well as reducing erosion throughout the watershed.

How do you detect erosion? If you can see small (or large!) channels in your driveway or paths, exposed landscape fabric from rip rap fallen away from the shoreline, excessive algae growth near the shore, exposed tree roots; these are signs of erosion. As water temperatures and the frequency of storms rise with climate change it is even more important that we address erosion issues.

Water Quality

Ron Armontrout and John Powers were busy this past summer taking Secchi disc readings from 3 stations throughout the lake. The depth at which the disc is visible as it is lowered is a strong indicator as to the clarity and overall water quality of the lake. Their readings over the last 2 years are summarized in this graph. The rise in clarity at the end of the summer was drought related. Thompson Lake remains one of the clearest lakes in Maine. Let's keep it that way!



Membership

Bill Booth, the head of our membership committee reports that as of the end of October, we have 477 members who have renewed their membership for 2020. This combined with 30 new members brings our membership total to 507. Considering that there are 1039 lakefront homeowners there is room for improvement. We ask all our readers to encourage their neighbors to join TLEA and help keep Thompson Lake a special place.

We greatly appreciated the loyalty of our current members, many of whom also make additional contributions designated for milfoil mitigation, Youth

Conservation Corp or our Courtesy Boat Inspection programs. We are indebted to past board member Anita Delekt, who searches public town records for new owners of lake properties, which enables us to send them info about TLEA and member benefits.

Revisions to the Clean Water Rule

This past spring the US Environmental Protection Association revised the enforcement of the federal Clean Waters Act which has been in effect since 1972. Prior to these changes, ephemeral streams or wetlands that did not flow continuously or have a continual connection to a larger body of water were still considered “waters of the United States” and eligible for protection from the Clean Water Act.

How does this affect a lake such as Thompson Lake? Feeder streams to tributaries such as Potash Brook and Greeley Brook will not be protected and with heavy rains or snows contaminants may flow into the lake and the aquifer with which well water is drawn. More importantly, wetlands that may not have a continual surface connection with the lake still serve as an important buffer to retain and filter runoffs from agriculture and towns that otherwise can flow unimpeded into the lake. This could significantly affect non- point source pollution of the lake, phosphorous entry, and increased algae growth.

TLEA Board members, along with the Maine Lakes Society expressed our concern regarding these proposed changes at the public forum held by the EPA in February 2018. Despite these efforts and those of many concerned citizen groups, the Clean Water Rules were revised. What can we do now? If you agree that these revisions will adversely affect our water quality for generations to come, contact your US Congress Representative or Senator and let them know you are concerned. The fight is not over, and we can still reverse these changes in a responsible way in the years to come.

Oxford Dam

Oxford Town Manager Butch Asselin reports that the renovations to the Oxford dam are progressing well. In early September the water level of the lake was drawn down and a cofferdam was erected to divert flow and drain the east and central gate portion of the dam. The stop logs and steel guides at the east gate were removed, as were the steel gate and guides at the intake to the old mill. The dam interface with the mill and the east gate area was found to have significant deterioration. Much of

the work will involve repairing this portion of the dam, improving the foundation, and replacing the east gate. Once the downstream flow of the dam was lowered, it was noted there was some bulging at the outlet left retaining wall. Prior to this brush growth along this portion of the wall had obstructed observation. This wall area was cleared of vegetation, including removal of a 12 in. tree, providing unobstructed monitoring of the wall. No further bulging has been detected.

Large rocks in front of the dam, some up to 4x3x2 feet, were removed with the use of a lattice boom crane. A 4,000 lb. mini-excavator dug the trench for the foundation down to the overlay design bottom of the dam. Crushed stone was placed, and concrete forms were then constructed. As of October 22, three concrete pours have been done and a new concrete overlay panel adjacent to the mill abutment is in place. The third pour was to extend the overlay to the area between the center sluice and the east section of the dam and to reinforce the east gate floor slab, creating a new upstream rounded edge and gate invert box-out. Ultimately, there will be a new east sluice with a motorized gate and fish screen. Butch notes that construction is on schedule and that the Bancroft team have been efficient partners.



Photo 1

Concrete overlay extending to the east gate of Oxford dam.

Visit our website at:
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