



FALL NEWSLETTER 2018

Dear Friends of Trickey Pond,

Summer is officially over, and what a wonderful summer it has been! If you spent time at Trickey Pond this year, you probably saw our 3 baby loons! It has been years since we have had babies on the pond, and we loved watching them grow. You probably also saw our new boat ramp, complete with improvements to protect the environment. In addition, within the TREPA, we had a great summer. Hopefully, you have visited our beautiful new website and have begun following us on social media. Facebook and Instagram provide weekly updates and year-round pictures of Trickey Pond.

Unfortunately, we can't bring you all good news. Due to our new tax laws, we have unfortunately seen a dramatic drop in donations. We hope that despite the impact of these new codes, you will continue to support Trickey Pond to the best of your ability!

In addition, invasive plants continue to surround our clean pond. In July, an LEA inspector found Eurasian Milfoil on a boat launching into Long Lake in Harrison. This boat had come from Lake Champlain in Vermont. This was a great catch, as the LEA battled milfoil in this same lake last year. However, this served as a sobering reminder that boats are coming to our area from a huge range of ponds near and far, and they are bringing with them plants that could destroy our pond and our homes.

This year we were only able to pay for a fraction of the hours of the boat inspectors that we desperately need to keep Trickey Pond safe and clean. We need your help! A single day of a boat inspector costs about \$100. Please consider donating to prevent milfoil from entering our pond for another valuable day. You can quickly and easily donate online at our website, www.trickeypond.org.

We hope you have a wonderful winter, and look forward to seeing you this spring. Please keep in touch during the off-season!

The Members of the TPEPA

TIDINGS FROM A WATER TESTING INTERN

Written by Kirsten Stemmler, TPEPA Board Member

There is a lone buoy out in the middle of Trickey Pond. Many of you probably don't think much about it except, maybe, to avoid it when you're outskiing or tubing. I didn't think much about it at all before this summer, when it became one of my many workstations. As a water testing intern for the Lakes Environmental Association, I became used to hanging out in the middle of lakes. It was there, at the deepest points, where we would conduct our daily tests, making various measurements and taking samples for lab analysis.

Out of all the qualities of water health that I learned to test, clarity was one of the most fun. Clarity is tested by lowering a black and white Secchi disk into the water on a measuring tape. A reading is taken at the depth where the disk becomes no longer visible through a scope. After many testing sessions, I became a pro with a Secchi disk. My fellow interns and I would sometimes even try to predict readings. The highest predictions were always reserved for Trickey. I'm sure this isn't surprising; Trickey has the clearest water in the area and we, who love our lake, love to share that information with any who will listen. The truth is though, clear looking water is just one component of water health and there are many things happening in a lake that we cannot see for ourselves. For instance, we cannot see the levels of nutrients in a water body and more importantly, we cannot see how those levels are changing over time.

One of the most significant, but sometimes complicated, aspects of ecological science is that you cannot understand an environment by just looking at a snapshot, a moment in time. Trends are so important. Sure, Trickey may look fine right now, but maybe 20 years ago it looked even better. And what will it look like 20 years from now? By monitoring the water, we aim to find trends that show us what's really happening under the surface. What we have found in Trickey is that clarity trends are declining and chlorophyll trends are increasing, putting the lake in a category of high concern.

During routine testing, water core samples are collected to determine chlorophyll *a* concentrations. (If you ever see someone in the middle of a lake struggling with a long clear tube, know that they are probably an intern getting totally soaked while collecting a core sample. The things we do for science.) Basically, chlorophyll *a* samples serve as a measure of the amount of algae in the water. Algae are a natural part of freshwater ecosystems but too much can be a bad thing. Besides being aesthetically displeasing and lowering clarity, algae gobble up oxygen in the water harming the natural ecosystem. Algae depend on nutrients such as phosphorous to thrive so high concentrations can be a result of nutrient pollution from fertilizers, septic systems, or urban runoff.

This is where we all come in. Lakes naturally have a buffer of plants around their shores to protect the water from runoff. Without absorption and filtration from plant root systems, rain water could flow directly into the lake, eroding soil and washing pollutants into the water. Property owners around Trickey Pond need to do what they can to reduce the runoff going into the lake. To do this, it is important to limit paved surfaces, bare areas, and steep paths that channel water into the lake instead of allowing it to soak into the ground. Things like erosion control mulch and crushed stone can be used to help prevent this runoff. We also want to maximize the amount of natural vegetation along the water, so leave all those bushes in place and plant some native shrubs to help soak up that rainwater. Additionally, think before you fertilize your lawn; you are also fertilizing all of the algae wanting to take over Trickey! With these small efforts, we can help Trickey Pond remain clear.

This summer I got to know many beautiful lakes, but there was always something special about coming back to test on Trickey. I am definitely biased, but I saw Trickey's charm proved when my fellow interns fell in love with the lake too. We enjoyed seeing everyone out, even in the early morning, appreciating the water. On different occasions we would share the lake with people skiing, fishing, and canoeing. Once, we were even surrounded by some young Skylemar campers learning to sail. Of course, we also had some very cute loon friends visit us. There is such a diverse community that values Trickey.

So, the next time you are out on the lake and see the water testing buoy, I hope you think of the work being done year-round to protect Trickey. Not only the LEA and TPEPA, but every individual who donates money, shares our posts on social media, gets a LakeSmart property check, or generally treats the lake with respect, is helping to protect Trickey! As someone who wants to keep hanging out in the middle of lakes, I hope you will all continue to take the time to protect our little ecosystem.

THANKS FOR YOUR DONATION IN 2018!

We would like to take a moment to thank those who have already donated in 2018. Our fiscal year ends on December 31, 2018. If you still wish to donate this year, please see the bottom of this page for more information.

SPECIAL THANKS TO OUR PLANT PATROLLERS

Our thanks go to *Joe Kellogg and Kris Schroder* for training with the Lake Stewards of Maine to become invasive plant patrollers. They spent all summer checking around the boat launches on Trickey Pond. Please consider becoming a Lake Steward!

To learn more about how to become a Lake Steward visit www.lakestewardsofmaine.org

JOIN THE TPEPA BOARD!

Our next meeting is on June 22nd at 9:00 am at the Naples Town Office. If you are interested in joining the Board but are not able to come to the next meeting, please email Kristin Finkelstein at kkushlan@gmail.com to learn more about how to get involved!

SIGN UP FOR AMAZON SMILE!

0.5% of every purchase you make will help us protect Trickey Pond

1. Go to <https://smile.amazon.com>
2. Type “Trickey Pond Environmental Protection Association” to find the TPEPA
3. Select us as your charity
4. Shop! Note: Smile doesn’t work on the App, so if you shop using the Amazon App, add everything to your cart, and then log in to Smile via a computer.

DONATE TO PROTECT TRICKEY POND

Please consider making a donation before December 31 2018

You can donate on the website with a credit card: www.trickeypond.org

OR

Mail a check to the “Trickey Pond Environmental Protection Association”
TPEPA, P.O. Box 417 Naples, Maine 04055

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OTHER NEWS

Written by Richard Meyer, TPEPA Board Member

ALGAE: ANOTHER THREAT TO OUR ECOSYSTEM

Due to climate change, on average, the weather temperature seems to have increased. As a result, algae blooms appear to occur more frequently and, because of this, have been in the news more recently. This article appeared in the August 2018 *Fun in the Sun* newsletter from the water testing people, A & L Laboratory, in Auburn, ME. They gave permission to reproduce it here. So far, Trickey Pond has had low phosphorus counts, but they are increasing as the article on Trickey Pond Water Quality shows. There is at least one major earth moving construction project on the TP shore that could be a point source for a huge phosphorus dump into the water. Consequently, a little understanding of the consequences of such an event should help the community pull together if it happens.

“Algae blooms are microscopic plants that are found in waterways. An algal bloom occurs when there is an excess of nutrients, particularly phosphorus and nitrogen. These nutrients often enter the waterways from runoff on lawns and farmlands. When large amounts of these nutrients build up they overfeed the algae that exist normally in the environment and results in increased growth of algae and green plants. As more algae and plants grow, others die off from lack of oxygen creating even more nutrients; this causes the water to become murky and creates an unpleasant odor. Most blooms in New England are either made up of diatoms, a common type of phytoplankton, or blue-green algae, known as cyanobacteria. Cyanobacteria are responsible for many of the Harmful Algal Blooms (HABS) that cause ecological, economical, and public health concerns in waterways, many times through the production of cyanotoxins. Health impacts from cyanotoxins in drinking water may include fever, headaches, muscle and joint pain, blisters, stomach cramps, diarrhea, vomiting, mouth ulcers, allergic reactions, liver inflammation, and hemorrhage, acute pneumonia, acute dermatitis, kidney damage, and potential tumor growth promotion. Swimming or recreating in waters with harmful algal blooms may lead to allergic reactions, including irritated eyes, ears and throat, gastrointestinal distress, and rashes and skin lesions. Groundwater wells do not typically produce cyanotoxins. However, there are exceptions if your well is directly affected by surface water. If your well or spring is located within 100 feet of a lake, pond or stream, your well or spring may be under the direct influence of those bodies of water and susceptible to contamination. If you suspect an algae bloom is present switch to bottled water until the bloom has been treated or the conditions are no longer favorable to support the growth of the algae bloom.”

TRICKEY POND WATER QUALITY

The TPEPA spent considerable money (\$925) again this year on testing the water quality in Trickey Pond. The purpose is to not so much to look for sudden change, but to look at long-term trends and develop a scientific database. More extensive data will be available for the spring newsletter, but a small amount of preliminary data is already available:

Metric	Long Term	2017 Average	2018 Average
Clarity	10.1 meters	9.2 meters	9.5 meters
Chlorophyll	1.7 ppm	1.7 ppm	1.7 ppm
Total Phosphorus	5.3 ppm	5.6 ppm	5.8 ppm

Additionally, it was reported that dissolved oxygen concentrations in the deep waters (near the temperature buoy) are high enough to support cold water fish species throughout the summer, although their habitat is slightly limited. These results are preliminary, but the results for 2018 show clarity and total phosphorus results are worse than the long-term averages. Clarity is improved over 2017, while total phosphorus is worse. Chlorophyll levels match the long-term and 2017 averages, indicating that the chlorophyll trend may be stabilizing. Because of the declining clarity trend, Trickey Pond is in the HIGH degree of concern category.

WATERSHED SURVEYS

A watershed survey is the land-based counterpart of a plant patrol. It can be an individual or an organized group who, with a little training, walk about within the land constituting the watershed around a water body – with the owner’s permission. Of course, all land is a watershed because a watershed is that land associated with a given pond or lake wherein any rain that falls eventually flows into said water body. The watershed surrounding Trickey Pond is only 555 acres (very small). This is both good and bad. It is good because it is compact enough for a small group of people to keep track of it is bad because it is so small that it only collects enough water to flush Trickey Pond in about 14 years. A more typical watershed supplies enough water to flush its associated water body in 3-5 years. The purpose of a watershed survey is to look for and identify point sources of pollution either entering the lake or with the potential to add pollution to the lake, such as washing a dirt pile into the lake from an excessive rainstorm. When such problems are found, a calm and polite talk with the land owner may result in a remedial action, however if this doesn’t work or if you would rather not have a conversation with the land owner, the next step is to get LEA involved to confirm the problem. LEA does not have legal authority to act, but they have tremendous influence with both the Naples code enforcement officer, and if the problem is serious enough, to involve the Maine Department of Environmental Protection and both the code enforcement officer and the Maine Department of Environmental Protection do have legal authority to take action. Everyone can see runoff, over fertilization, tree cutting in the shoreland zone, or other suspicious activity. Contacting a Board of Directors member or LEA is a fast way to take action before more extensive damage is done resulting in a further decline in Trickey Pond water quality.