



PROVINCE LAKE THIS MONTH

A Message from the President

Well Folks,

As I wake this morning to fifty degrees with mist rising off the lake, I am reminded how quickly the summer passes. We have endured and enjoyed the dog days and nights of summer. There are still many beautiful days to come, so be sure to get out and make the most of it!

I would like to thank all the members who attended the PLA Annual Meeting and the Effingham Preservation Society for opening their building to us. There were updates from board members on the various projects happening around the lake as well as an informative presentation from Andrea LaMarcoux of NH Lakes on invasive species. I think everyone left learning something new. If you were unable to attend and would like to know what was discussed, the meeting minutes are available on the Province Lake website.

As you are aware, we experienced a cyanobacteria bloom the second week in August. We keep in contact with NH Department of Environmental Services and in turn have kept you updated as best we can. We have included information about cyanobacteria in this newsletter, which hopefully answers questions you may have. What causes a cyano bloom is still a mystery though we are trying to obtain some insight through our current water testing project that includes sampling the lake sediment, and water sampling during high wind events and boat activity. Once the study is completed we will let you know what was learned.

Please join us for our Rt 153 beach cleanup on Saturday, August 25 at 9.00 am. We will meet at Donville Rd and everything will be provided so we can give our Rt 153 beach it's annual cleaning. Hope to see you there!

Enjoy your time at the lake!

Mindy

President

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Cyanobacteria

Province Lake had the misfortune to experience another outbreak of Cyanobacteria in early August. As of this release of this newsletter, the NH DES has issued a Cyanobacteria Alert for Province Lake. The DES will be taking water samples on Tuesday, Aug 14, to ascertain if the bloom is toxic. In the meantime, alert posters are in place around the lake. The advice is should you see a bloom, you should avoid going in it and keep children, adults and pets out of it.

As background, cyanobacteria are bacteria that can often produce toxins that adversely affect people and animals. According the NH DES website, cyanobacteria are a potential public health danger because they may produce toxins, collectively referred to as “Cyanotoxins,” that can be released into the water when cells die or are consumed by organisms in the food chain. However, the amount of toxin produced varies over time and from lake to lake. A cyanobacteria bloom may produce very little or no toxin in one lake and a later bloom in the same lake could produce a large toxin concentration. Unfortunately, no known method exists for predicting the toxin content of a cyanobacteria bloom. Water samples are taken and analyzed to determine any toxicity.

If you suspect a cyanobacteria bloom is occurring, please call the NH DES CYANO hotline immediately at **(603) 848-8094**, or (603) 271-0698 (Amanda McQuaid), or email beaches@des.nh.gov. You can also use the bloomWatch app to send a photo.

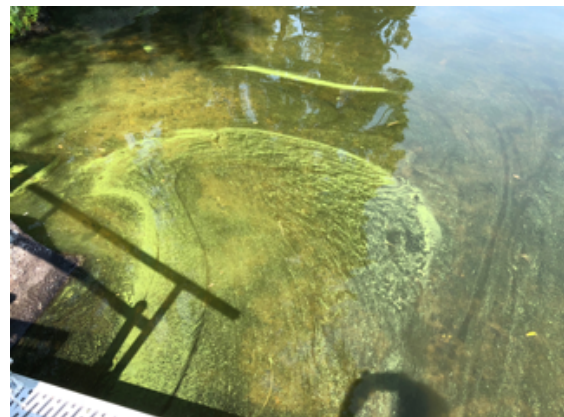
Please also call the PLA at 207-200-3243 so a sample can be obtained. Advisory signs will be posted when the NH DES issues an Alert.

You can find more information on cyanobacteria at the NH DES website

https://www.des.nh.gov/organization/divisions/water/wmb/beaches/cyano_bacteria.htm

<https://cyanos.org/> is an EPA website where you can find additional pertinent information about cyanobacteria and how to download the bloomWatch app.

As we mentioned in our April 2018 newsletter, the PLA with AWWA and DK Water Resource Consulting LLC will be conducting a study through 2019 to collect and analyze data to better understand the cyanobacteria blooms in our lake and what actions may be taken to mitigate them. Please contact us at President@ProvinceLake.org for more information on the study.



Cyanobacteria blooms in Province Lake this month



AWWA & PLA Province Lake Watershed Management Status Report



The following is the summary presented at our Annual Meeting on July 21 regarding the status of our Watershed Management Plan Report. Many thanks to Linda Schier of AWWA for preparing this report and to Jon Samuelson for reviewing it at the meeting.

The “Province Lake Watershed Management Plan” was originally presented to the PLA community in July 2014. The Plan outlines the goals for water quality and the action items needed to meet those goals. The Action Plan, developed by PLA, AWWA, FBE, NHDES and stakeholders recommends **Specific, Measureable, Achievable, Realistic and Timely** actions within six major categories: septic systems, shoreline development, municipal ordinances, roads, recreation/boating and water quality monitoring.

AWWA was awarded three NHDES Watershed Assistance grants, totally over one half million dollars, to develop the plan and implement some of the recommendations. As part of the Watershed Planning grant AWWA coordinated both watershed and septic surveys to identify areas around the lake that could be contributing pollution to the lake.

Year	Funding Agency	Project Title	Grant \$\$	Match \$\$	Total Project \$\$
2012	NHDES	R-12-C-08 Development of a Watershed Plan for Province Lake	74,440	86,490	160,930
2015	NHDES	RI-15-S-08 Province Lake Watershed Management Plan Implementation Phase 1: Addressing High Priority Actions and Building Local Capacity	98,100	104,921	203,021
2016	NHDES	RI-16-S-01 Province Lake Watershed Management Plan Implementation Phase 2: Septic System Improvements, Golf Course, Campground, Shoreline and Road Enhancements	77,000	66,195	143,195
Totals			\$ 249,540	\$ 257,605	\$ 507,145

Significant resources have gone into helping to bring Province Lake back to health. The match dollars are generated through PLA donors, AWWA staff time, Town highway departments labor and equipment, volunteer labor, YCC project host match, water quality monitoring, private foundations, business support and more. It certainly takes a village!



AWWA has coordinated the following NHDES grant funded tasks as of July 2018:

Septic Systems

All homeowners within the shoreland zone (250' of the lake) were asked to complete a septic survey. The results were used to identify those who might be in need of an upgrade. Properties identified as highest risk were offered a free septic inspection. Of those whose inspection indicated a need for a septic upgrade, five homeowners have taken advantage of the grant funded cost-share program to replace their systems. There is still funding available for three additional upgrades.

Shoreline Development

The AWWA Youth Conservation Corps has installed 106 erosion control landscape features on 29 properties reducing the pollution reaching the lake by an estimated 86 tons of sediment and 72 pounds of phosphorus each year. This summer the AWWAYCC will be installing an additional 300' of vegetated buffer along the NH section of the beach.

AWWA's program managers have delivered 60 free technical assistance visits with site specific recommendations. Amy Arsenault is available to meet with any interesting property owners to offer healthy lake recommendations.

Grant funds supported installation of storm water management controls on the two highest priority residential properties reducing the pollutant load by an estimated 49 pounds of phosphorus per year.

Municipal ordinances

AWWA has an on going mission to ensure that the towns of Wakefield, Effingham and Acton understand, and are committed to, the concept that water quality in the lakes is inextricably tied to a stable economy through property taxes, tourism dollars and healthy ecosystems. Your voices are important in this discussion so please feel free to contact AWWA or PLA with any concerns.

Roads

AWWA and PLA partnered with the UNH Stormwater Center, the towns of Wakefield and Effingham and a private road association to remedy chronic road drainage issues with an eye to illustrating cost effective solutions to common stormwater management problems. It is our hope that future routine maintenance will include attention to how the drainage affects the lake.

The conversation about the impact of Route 153 to Province Lake is ongoing between the PLA, landowners, NHDES, Maine DEP and the Departments of Transportation in both states. No solution has been identified but the dialogue is ongoing.

Recreation/Boating

Grant funds are allocated to further study the impact boat traffic has on water quality. In addition, AWWA produced a flyer about boating safety for distribution through the PLA.

Water Quality Monitoring

PLA volunteers, the UNH Lakes Lay Monitoring Program and the NHDES have established a rigorous, consistent and comprehensive monitoring program that provides a clear window for understanding the trends and characteristics of the lake's water.

Grant funds are supporting the PLA effort to learn how the lake's sediments are affecting the phosphorus levels in the lake. This project will help determine next steps in addressing the lake's challenges.

All of the tasks related to the grants involve a level of outreach and education. Several printed materials have been produced including the "Clean Water and You" booklet that is distributed to all new property owners. AWWA coordinated the first Route 153 Beach Clean-up and the PLA has repeated it each year since. A BioBlitz on the Province Lake Golf Course introduced dozens of people to the wonders of looking closely at the natural world where they identified over 200 species of flora and fauna. Both AWWA and PLA websites offer timely and interesting information about lake water quality and how people can make a positive difference.

The Province Lake community and all its partners are fully committed to doing everything in their power to bring Province Lake back to health and preserve the wonderful way of life generations of Province Lake families have enjoyed.



Funding for this project was provided in part by a Watershed Assistance Grant from the NH Department of Environmental Services with Clean Water Act Section 319 funds from the U.S. Environmental Protection Agency

Your PLA at work

- ❖ Please feel free to utilize our PLA Ad Board as you look to sell or find items. You must be a 2018 member to post any item on the site. The link is <http://provincelake.org/photos/adboard/>
- ❖ We have compiled WELCOME PACKS for new owners around the lake. Please let us know of any new owners near you, or that you are aware of, so we can reach out to them. We are happy to provide Welcome Packs as well to anyone who leases their property and would like to have a copy available for their renters. Please email us to request a pack at <mailto:provincelakemembers@gmail.com>
- ❖ We have added an [Important Info](#) link to our website dedicated to supplying helpful information to the residents and visitors of Province Lake
- ❖ If you have a topic you would like to see addressed or if you would prefer to opt out of receiving the Newsletter please let us know. You can always contact us at provincelakemembers@gmail.com.

Calendar of events and items of interest

Aug 2018

PLA Rte 153 Beach Clean-up- Sat,
August 25 at 9.00. Meet at Donville Rd
on Rt 153

About the PLA

Membership in the PLA is open to anyone who has a love and concern for Province Lake. The PLA has an active membership and we encourage all to become members by completing a brief membership form and paying annual dues. Click here to [join](#) and to see membership information. 100% of PLA membership fees and donations go into projects and related work focused on Province Lake water quality.

Links to our partner websites:

Acton Wakefield Watershed Alliance (AWWA) <https://awwatersheds.org/>

Moose Mountain Regional Greenways <http://www.mmrg.info/>

NH Lakes Lay Monitoring Program <http://www.cfb.unh.edu/programs/LLMP/nhlmp.htm>

NH Lakes <http://www.nhlakes.org>

Province Lake Association, PO Box 24, Effingham, NH 03882

Phone (207) 200-3234

www.provincelake.org and follow us on Facebook at [Province Lake Association](#)

The PLA Board

Mindy Schuman-Vye (President)

Lorie Dunne (Vice President)

Thom Townsend (Treasurer)

Donna Luce (Secretary)

Directors:

Jim Aiken

Barbara Burns

Carl Davis

Peter Dinger

Rick Greene

David Lajoie

Jon Samuelson

Tucker Vye



Four loons on our lake

PLA is a 501(c)3 charitable organization and as such all donations are tax deductible to the full extent allowed by law. Our EIN is 23-7337832