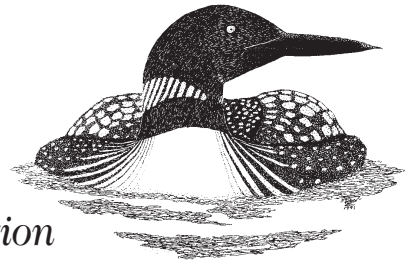


SUMMER 2014 PawPrints

A publication of the Pawtuckaway Lake Improvement Association



2014 ANNUAL MEETING

Saturday, June 14th
9:00 am
Nottingham School

Last October, the PLIA signed a Partnership Participation Agreement with NH DES to work together on the lake's water levels and quality issues. We are happy to say these have been improving in recent years! We are the first lake Association in NH to have this close cooperation, and increased testing and management as a result. Come to the meeting, and hear about what's been going on!

Questions?

Call or email
tom.duffy@verani.com
603-303-3039



2013 Annual Meeting: Upper right Will Urban and Tom Duffy. We had a great turn out last year . . . let's do it again! The PLIA needs your support.

SAVE THESE DATES!

June 27th

Meredith, NH Lakes Conference

July 4th

Annual Boat Parade. Leaves the North End at 10:30. Get there early!!

July 20

Annual Loon Census. Steve Soreff, Chief Loon and Coordinator

August 3

Lake Winnepausakee, Lake-A-Palooza – Kayak Raft up – Guinness Record

The Pawtuckaway Lake Improvement Association is a private, nonprofit association formed to monitor and act upon environmental and safety issues in the Pawtuckaway Lake watershed area and other issues of concern to its members.

The Association routinely conducts water sampling under the New Hampshire Volunteer Lake Assessment Program of the State of New Hampshire Department of Environmental Services.

To join the PLIA email notification list, or if you are on the list and have changed your email address please send your email address to mickmokos@comcast.net. This list is for PLIA use ONLY. We send out notices regarding upcoming meetings, events, etc. You must be a paid member.

UPDATE: Pawtuckaway Lake Drawdown Evaluation

Prepared by the NH Department of Environmental Services (NH DES), April 2014

In September 2013, the PLIA and NH DES signed a historic Partnership Agreement, the first one of its kind with an individual lake association. This agreement was in response to the concerns surrounding instream flow management in the Lamprey Watershed. As part of that agreement, biologists from the NH DES have been conducting water quality monitoring and a comprehensive plant survey to better understand current lake conditions.

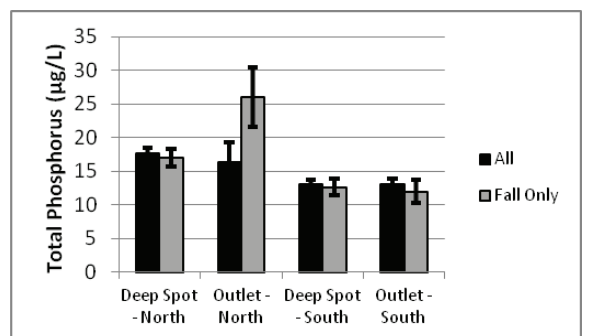
These data will be used to make comparisons to future lake conditions following drawdown modifications from the historic target of 7 feet. Over the next three years, winter lake level reductions will change to 6' in 2014, 5.5' in 2015, and, finally to 4.8' in 2016, which is the level called for in the Lamprey River Water Management Plan. In addition, annual drawdowns by the Dam Bureau will be focused on the Drowns Dam outlet to increase the flow from the northern end of lake, the area of the lake with higher phosphorus levels.

The key questions that are being addressed by DES are:

- How do phosphorus concentrations at the south and north in-lake deep spot sampling points and the outlets compare during the study period?
- Is more or less phosphorus being released from the lake by changing drawdown levels and outlets?
- How will changes in winter drawdown levels affect the location, abundance, and types of plants growing in the lake?

Since fall 2012, NH DES has collected water quality data on 29 days in the fall, winter, and spring months. In total, 110 individual phosphorus samples have been collected from 4 stations. Median phosphorus concentrations for these data are presented in Figure 1. In general, phosphorus concentrations from deep spot and outlet stations in the northern basin were slightly higher than deep spot and outlet locations in the southern basin. However, during the fall drawdown period, median phosphorus concentrations from the north outlet were higher than the overall median at the same location and approximately twice the concentration of fall samples from the south outlet. Ultimately, outlet streamflow will be combined with phosphorus concentrations to estimate the rate of nutrient export from the lake in order to evaluate lake management decisions.

Plant surveys conducted in 2013 and 2014 will represent baseline conditions. Future surveys will examine if changes in the aquatic plant community can be documented under changed winter drawdown scenarios. Plant surveys will include: 1) summertime mapping to determine plant biomass, and 2) late summer point survey mapping at 90 sample points to determine species composition and abundance. The 90 points are split between areas still subject to winter exposure



HELP PRESERVE OUR LAKE, BECOME A LAKE HOST!

A few hours, whether morning or afternoon, weekdays or weekends, can make a big difference in our lake's future and help us meet our match requirement. contact Donna Danis at ddanis@comcast.net or call 603-895-3555

and those which will no longer be exposed as the winter drawdown is changed. Based on the 2013 survey, 14 different types of plants were observed. Fortunately, none were invasive aquatic plants (keep up the good work, Lake Hosts and WeedWatchers!).

Water quality monitoring and plant surveys by NH DES will resume in late summer 2014 and continue through the fall and winter months. Stay tuned for more updates.



President's Message

In October 2013, the PLIA and the NH DES signed a **Partnership Participation Agreement** which outlines cooperating procedures for lake levels in Winter/ Summer, water quality and testing, invasive species, and aquatic plants. Certainly, this is a compromise. I believe that the advantages far outweigh the disadvantages, and the NH DES has conceded on many issues and made new investment in Pawtuckaway's overall health. Some plus factors:



Boat Parade July 4th!

1. 80% of the water in winter leaves from the North end (Drown's Dam) which is where most of the phosphorous nutrient loading occurs. Draining from the North means less loading through the rest of the lake to degrade it. In theory, this is a big win.

2. More science, more testing, more knowledge – Many NH DES departments are now looking at the health of Pawtuckaway, measuring aquatic plants, funding the testing and studies, and helping to support Lake Host boat inspections at the launch. They are now doing Winter water quality testing to see if retaining more water has negative effects. The Winter Lake level will go down LESS over time, and permanent, non-removable docks will be affected. We are still testing to establish a maxi-

mum drawdown level so that the least number will be impacted. Remember, the State of NH , prior to this agreement, could have raised or lowered the lake at any time they wanted – summer or winter. Now there are limits and guidelines for EMERGENCY purposes downstream and Lake residents now have some control.

3. There will be two meetings between the PLIA and NH DES per year to review the testing and procedures and improve the conditions. The next one will be during the late summer months.

Other PLIA Activity: This Spring new committees have been meeting to reorganize the PLIA into a corporation, exploring more grant money, and seeking to create a better organization. Many dedicated volunteers have been working behind the scenes. Pawtuckaway once again has a lake resident on Nottingham's Board of Selectman--Donna Danis, who also has run our Lake Host inspection programs.

The times are challenging in many ways, but with many dedicated members, we can work together to maintain the health and beauty of our home on Pawtuckaway! **See you at the Annual Meeting on Saturday, June 14th, at 9 am at the Nottingham School.**



Pawtuckaway Loons

Floating Loons Nest: Last spring, at the Moultonborough, NH Loon Center, Therese Thompson attended a loon raft building workshop sponsored by the Loon Preservation Committee. She generously donated her newly crafted nesting raft to be anchored somewhere in the south part of Pawtuckaway. Liz and Ed Kotowski added vegetation to the raft to increase its comfort and appeal to our nesting loons and took responsibility over locating an appropriate location to float it last summer. Some of you may have seen it in your journeys around the lake.

Although the loons reportedly showed some initial interest in the

floating nest last year, they ultimately decided to locate their nest elsewhere, on an unfortunately highly visited island. This year, we are hoping they will choose the raft and are soliciting ideas about where to locate it. It remains where it was anchored last year, but it is theoretically moveable, so it could be relocated if a better site were found.



Membership

Please invest in the future of Pawtuckaway Lake by becoming a member today!

Members have the option to join at one of three different levels. Each level helps support additional conservation and community services. If you care deeply about these programs or you don't have the time to volunteer, joining at a higher level is a way for you to show your support. You can still join at the traditional \$10 per year or you can help fund these important expanded services by joining at a higher level.

\$10 - Basic Membership Level. This membership level covers the cost of the basic services the PLIA has provided for the past 20 years.

- Water Quality Testing Program • PLIA Annual Meeting
- PawPrints Newsletter • PLIA mailings • Road & Island Cleanup Supplies • PLIA contribution to NH Lakes Association, and other conservation affiliations

\$25 – Community Membership Level. This membership level, in addition, supports, educational, and community programs.

- Pawtuckaway Kids Programs • Community Events
- Boating Safety Programs

\$50 – Conservation Membership Level. This membership level, in addition, helps fund the environmental and conservation initiatives that are protecting our lake for future generations.

- Lake Host Exotic Species Prevention Programs
- Weed Watchers Program • Conservation Programs
- Environmental Studies
- National/State/Local matching grants

MEMBERSHIP APPLICATION

Mail your check to: PLIA, PO Box 30, Raymond, NH 03077

Name _____

Mailing Address: _____

City _____ State _____ Zip _____

Lake Address: _____

Telephone _____

Email _____

I have enclosed a check for:

- \$10** Basic Membership Level
- \$25** Community Membership Level
- \$50** Conservation Membership Level

Please check your preference for receiving future issues of PawPrints:

- Emailed PDF** file (Choosing the emailed PDF copy saves the PLIA significant printing and postage costs)
- Printed copy - US Mail**

Thank you for your support!