

# Kanasatka Water Matters

## News & Updates



November 2022 - Issue 1

### Welcome to Kanasatka Water Matters

The new newsletter from Lake Kanasatka Watershed Association! The goal of this newsletter is to broaden communication with the LKWA Community in an informative and timely manner. We will be sending updates regularly with articles of interest on topics ranging from pending NH legislation that will have an impact on NH lakes to updates on the LKWA Watershed Management Plan implementation, to best lake-friendly living practices, to the status of our loons, to upcoming dates for meetings and concerts and more.



### **2022 Highlights from the LKWA Board of Directors**

The LKWA Board and numerous volunteers have logged many hours and

worked together over the past year to accomplish the following:

- Secured a detailed Watershed Management Plan
- Prepared individual shoreline assessment packets for each waterfront
- Wrote new Association Bylaws approved by the membership at the Annual Meeting
- Registered with the State of New Hampshire to conduct fundraising in support of the Watershed Management Plan
- Began the process of applying for grants to address areas of concern as identified in the Watershed Management Plan
- Transitioned to a human-powered July 4th boat parade
- Held 2nd annual Concert in the Cove fundraiser which yielded a total of \$2,200



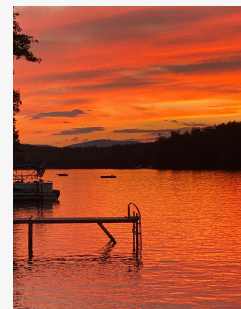
### **LKWA Board Meeting**

**October 27, 2022**

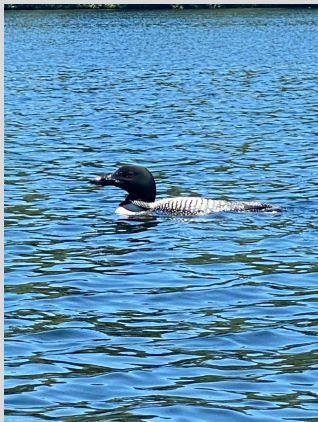
• **Water Quality Report:** A summary and chart was shared and discussed regarding the data and information collected to date to meet the testing goals in support of the Watershed Management Plan and to determine the depth requirements for potential treatment under the WMP.

• The Board recognized the **invaluable assistance provided by UNH** and agreed it was appropriate to promote the UNH fundraising initiatives.

• **Communications Committee:** At a recent meeting the committee discussed ideas for outreach to and communication with LKWA members such as posting educational articles on best lake practices, emailing regular newsletters to the lake community, and creating implementation plans for each. The Committee has been reconstituted with volunteers including Christine Wallace, Janna Hoiberg, Kevin Kelly and Carol



- Collaborated with NH DES and Lake Winnepesaukee Association on protocols for collecting and reporting on cyanobacteria samples
- Held UNH-led training of new water quality monitoring team and new sampling protocols
- Implemented extensive new sampling procedures as recommended in the Watershed Management Plan, including securing the loan of highly specialized equipment from UNH and additional UNH support
- Continued outreach to new property owners.
- Provided on-site program to Camp Quinebargue campers and staff on the importance of and impacts to watersheds
- Lake resident Kevin Kelly has kept engaged with NHDES and DOT on the work to be done at the dam area/launch ramp to help with the storm water runoff issue. Improvements are scheduled to be done in 2023



Hart.

• **Watershed Management Plan Committee:** The Watershed Management Plan (WMP) has been completed and submitted to the NHDES/EPA. The plan has been posted on our website for all interested parties to review. The committee is now shifting their focus to fundraising and implementation of the Plan. A section 319 watershed assistance grant pre-application proposal has been submitted to the NHDES for their preliminary review.

The deadline for the final proposal is January 13, 2023. The pre-application proposal highlights watershed survey sites as noted in the WMP in which to implement BMP's (best management practices) for the maximum impact on improving water quality. Once the final proposal has been submitted to NHDES, the 319 application will be published on our website.

**The committee is looking for volunteers** who would like to help in the fundraising and implementation phase of the WMP. If you are interested in volunteering, please send an email to [LKWAWatershedPlan@gmail.com](mailto:LKWAWatershedPlan@gmail.com) to let us know.

In addition to your volunteer preference(s), please send any questions you may have regarding the WMP to help us build a FAQ database to answer questions.

- Next LKWA Board meeting is scheduled for November 17, 2022.

#### **Current Board Members**

Kirk Meloney, President  
Jane Nash, Vice President  
Rob Baker, Treasurer  
Colette Cooke, Secretary  
Wendy Booker  
Tim Baker  
Lisa Hutchinson  
Chris Wallace

## **Be LakeSmart!**

Congratulations to Lake Kanasatka property owners who have begun the LakeSmart process! It is the most important thing individual homeowners can do to help our lake.

Get started by taking a 15 minute online self assessment. A trained evaluator will then visit your property, at no charge, to assess how well your property protects the lake from runoff and erosion. The team will look at your driveway and parking area, your roof and other structures. They will ask about the location and age of your septic system and study your waterfront.

The goal is to prevent runoff from any of these areas from entering the lake. The team will make recommendations that will help you on your journey towards becoming



LakeSmart. The process is friendly, non judgmental and non binding.

Common recommendations include:

- Divert water off driveways and pathways into a drainage area
- Use infiltration trenches at building driplines
- Cover pathways with erosion control mulch or pea gravel
- Limit lawn size and do not use fertilizer-consider planting clover instead of grass
- Create a vegetated buffer zone using native plants along the shoreline

Go to <https://nhlakes.org/lakesmart/> and get started today by taking the online assessment. Sign up early for a site visit- they will fill up quickly as next summer rolls around.



## LakeSmart Stats from Bree Rossiter at LWA

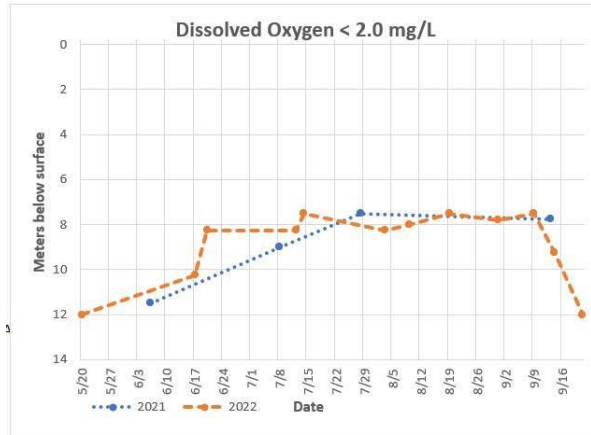
- 22 site visits were completed for Lake Kanasatka property owners this summer
- In total, we were able to complete 25 site visits in Moultonborough and 55 visits throughout the Lake Winnepesaukee watershed
- LK accounts for 40% of the visits we were able to accomplish this summer within the watershed and 88% of the visits in Moultonborough alone
- In total, we deemed 4 properties on Lake Kanasatka as “Winni Blue & LakeSmart” and eligible to receive the award in 2022

## ANOXIA and ALUM TREATMENT

Anoxic conditions, or the lack of dissolved oxygen at depths in the lake, were discussed at June 4 Community Forum and in the Final Watershed Management Plan (WMP). Per the WMP, “a build-up of legacy phosphorus in bottom sediments can be released back into the water column under low oxygen conditions, typically experienced in late summer – a phenomenon known as internal phosphorus loading. The model showed that internal phosphorus loading to Lake Kanasatka is significant...” The release of the nutrient phosphorus in turn feeds cyanobacteria blooms.

Also stated in the WMP, “It is likely the internal load will need to be addressed to fully restore the excellent water quality of Lake Kanasatka.” An in-lake treatment (alum) is the likely path we would pursue to address, or lock in, the phosphorus in the bottom sediments (WMP Section 2.1.4.).

Work on these efforts is already under way. Your Water Quality Team started early and implemented new testing beginning in spring of 2022 at the Deep Site (WMP Section 6.4 Monitoring Plan). We conducted full profiles throughout the water column approximately every other week from May into early October. The following graph shows the extent of anoxia (dissolved oxygen under 2 mg/L).



- The graph shows anoxic conditions start developing near the bottom and expand higher into the water column during early summer, and level out somewhat during late summer. The drop shown in fall 2022 relates to the breaking up of the thermal layering (temperature and density differential that separates the water column into distinct, non-mixable layers), when the oxygen then can mix freely into the deeper parts of the lake again.

The graph shows, in both years, anoxic conditions are prevalent at 8+ meters, sometimes as shallow as 7.5 meters from the surface. This data is indicative of the worse scenario laid out in Figure 9 of the WMP, which shows the map of the extent of anoxia at 8.5+ meters and 7.5+ meters. The data indicate most of our lake bottom will need treatment.

- The 4 profiles in 2021 are shown in blue, and the 13 profiles in 2022 are shown in orange.
- The left-hand axis of 'meters below surface' depicts the data as a cross section of the water, with 0 being the surface and 13-14 being the bottom of the lake.

Submitted by Lisa Hutchinson

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***Volunteer Committees Coming Soon!***  
***Next Issue will include: More about Lake Smart and Loon Status Update***

**LKWA email contacts:**

Watershed plan

[LKWAWatershedPlan@gmail.com](mailto:LKWAWatershedPlan@gmail.com)

LKWA Communications email:

[LKWACommunications@gmail.com](mailto:LKWACommunications@gmail.com)

Link to WMP:

[https://fbenvironmental.com/PDF/Kanasatka/LakeKanasatka\\_WMP\\_Final\\_20220816.pdf](https://fbenvironmental.com/PDF/Kanasatka/LakeKanasatka_WMP_Final_20220816.pdf)

Lake Kanasatka Watershed  
Association |  
[www.kanasatka.org](http://www.kanasatka.org)

