

Lake Kanasatka Watershed Association



Spring 2021
in our 49th year

Town of Moultonborough unanimously votes to fund Lake Kanasatka Watershed Management Plan!

President's Message

Kirk Meloney kirk.meloney@gmail.com

When I first wrote this letter to the LKWA community we were all busy preparing for the Moultonborough Town meeting. We had our work cut out for us. It is with great pride in our Lake Kanasatka Watershed members, residence of Moultonborough and hard work and perseverance that I am happy to report that the Town of Moultonborough has voted to fund our Watershed Management Plan! A huge victory for our lake, the environment and generations to come.

Last year (2020) was a year all of us are happy to move forward from; a global pandemic (which still haunts us), major political unrest, unnecessary violence towards people all around the world including right here in the USA. So many things cluttered and upset our lives that many of us thought "is this the new normal?" I for one hope it is not.

The LKWA Advisory Board met for an unprecedented number of times in 2020 due to many issues that were of great concern; how can we "fix the lake" so we never have to witness another cyanobacteria bloom which closed it down to all? And of course, our meetings were held virtually on computer screens, not face-to-face in a common location. This added to the challenges we faced. But we stayed focused on the issues and tried our best to develop solutions and engage others in our efforts. Though there were countless distractions, I am proud to report that the AB never wavered in its efforts to address the prevailing issue: find solutions that heal and protect Lake Kanasatka.

Given the enormity of the cyanobacteria impact on the lake community we knew we needed to match it with an equally enormous response. That response is the

development of a Watershed Management Plan (WMP). A WMP has been discussed many times over the years but always put off for "tomorrow" due to its prohibitive cost. The AB decided that tomorrow has arrived; the time is now – we must find the resources, financial and personnel to make a WMP a reality for Lake K. We can't afford not to.

I am happy to report that through many generous donations and many volunteer hours we have implemented the first steps of creating our Watershed Management Plan. With a plan in place, we will be able to apply for State and Federal grants to use toward repairing deficiencies around our watershed which all (in one way or another) cause the lake issues. As I said, this plan is not cheap; we have hired an engineering firm to put the plan together which takes many hours of work. We have asked the Town of Moultonborough to contribute towards this effort. We are hopeful this will happen but either way we will continue to find and raise the funds necessary to complete this task. It will just take longer to complete without the Town's investment.

I want to personally thank each Board and Committee member for their time and commitment to Lake Kanasatka. Without our volunteer network we would be nowhere. I do hope the membership realizes the effort that is put in by these volunteers. Many hours of work go into what we do and what we are trying to accomplish. But we all work towards the common goal of a healthy lake for all to enjoy, especially future generations. That to me is a very satisfying reward for the effort.

Kirk Meloney
President, LKWA and lifelong LK Lover.

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Water Quality

Lisa Hutchinson - Chair

Carol & Rick Carlson

Lisa & David Hutchinson

Woody Cartwright

Rapid Response Team

(See WQ Article)

Hospitality

(Vacant)

Boat Parade

Rob Baker

Newsletter

Wendy Downing

Lake Host

Kirk Meloney

LPC Loon Liaison

Trish Townsend

Joan Izen

Communications

Joel Schwelling

Jon Youtz

A spring-time tip on **Fertilizers and Organic Fertilizers**

'Tis' the season to be planning for summer, which for many includes going to the local garden center or hardware store or planning services with your landscaping company. No fertilizers are lake-safe, not even organic ones. Not many people, even the landscaping pros, are aware organic fertilizers are harmful to the lake. Many of us think organic is the safe choice. The three primary ingredients in any fertilizer are nitrogen, phosphorus, and potassium – that's the three numbers often listed as N-P-K on the package. This is true even if the organic materials are from natural plant and animal sources such as manure, dried blood, crushed shells, fish, cottonseed meal, phosphate rock, etc. Excess nitrogen and especially phosphorus causes algae blooms and accelerates plant growth. The better choice on your waterfront, if you have any lawn or plantings, is lime. And a soil test is always a great first step.

Important Dates!

July 4 Boat Parade starting 3:00 PM
at Animal Isle

July 10 *Annual Meeting 9:00 AM
Location to be determined - we will let you know.

Maybe we will hold our "Annual Picnic" - to be determined.
Anyone interested in hosting?

Middle of the Lake Rendezvous like last year? TBD

Shorefront Fundraiser Concert - Stay Tuned!!

*Our annual meeting will take place but HOW
it will be held will be determined with the safety of all in mind.
Specific information will be shared on the LKWA website and
via social media.

The Lake Host Program

The Lake Host Program is a courtesy boat inspection and education program to help prevent the transport in to or out of our waters of aquatic species like Variable Milfoil, Water Chestnut, and Curly-leaf Pond weed and of animal species like Asian Clams, Mystery Snails, and Zebra Mussels. Volunteer Lake Hosts staff Lee's Mills, Long Island, States Landing and Lake Kanasatka boat ramps every weekend throughout the summer. This program has seen good results and finds boaters very cooperative. Prevention is key for once invasive species take hold they are very difficult to eradicate. You can help by volunteering for as little as 1/2 a day on a Saturday or Sunday once a month during the summer. Volunteers will be trained by and work with experienced Lake Hosts.

The Moultonborough Milfoil Committee oversees the protection of all the lakes within Moultonborough boundaries. The Lake Host and Weed Watcher Programs come under its jurisdiction. The Town of Moultonborough has taken a proactive approach to protecting all its lakes. It has budgeted as much as \$200,000 to keep our lakes free of invasive species especially Milfoil by proper use of chemicals and hand pulling. Last season LKWA became part of this important program. If you are interested in volunteering to the Lake Host program, please contact Tracy Waterman at Lakehosttracy@gmail.com Tel: 603-986-3384

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WATER QUALITY REPORT

We have received the **2020 Water Quality highlight report from UNH**; the full report will be available soon. 2020 results of phycocyanin-based monitoring for cyanobacteria we put in place 3 years ago are still being processed by UNH.

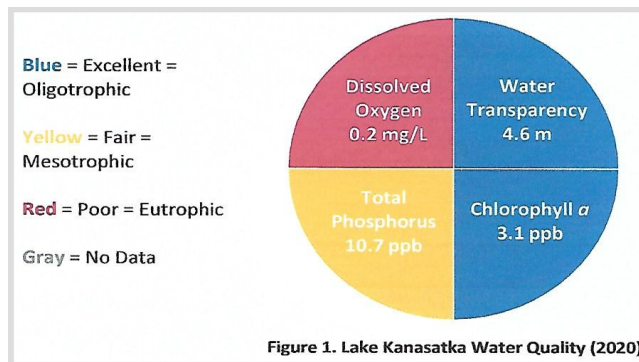
Year-over-year, for the entire sampling season

- Water transparency is excellent and shows improvement, it also has improved long-term
- Dissolved oxygen remains concerningly low at the bottom of the lake in late summer
- Total phosphorus has increased/worsened, also worsening long-term
- Chlorophyll levels remain excellent (low), and have remained relatively stable long-term

These results are a summary of average 2020 conditions. Looking at the data over the course of the summer, water transparency degraded significantly and chlorophyll measurements were higher as a result of the cyanobacteria blooms.

Total phosphorus levels, measured at the surface, have varied over the years, with a 44% increase in 2020 from 2019, yet 2010 and 2017 levels were higher than last year. Phosphorus levels near lake bottom have been significantly higher than levels at the surface, and likely increase with any lack of oxygen at lake bottom. Deep spot bottom concentrations this year were nearly 7 times higher than at the surface, yet were worse in 2017 and twice as high in 2019. This is one of the areas to be covered in developing LKWA's Watershed Management Plan (WMP).

LKWA had its first significant **cyanobacteria blooms** in August, September, and October of 2020. NH DES advisories were in place for 24 total days during this period, for both lake-wide blooms, which appeared as a sustained strange green hue throughout the entire lake, and as more typical surface scums along the shorelines which appeared and dispersed quickly. Preliminary results by Amanda McQuaid, PhD and head of NHDES Harmful Algal and Cyanobacterial Bloom Program, shows "there was a diverse population of potentially toxic cyanobacteria," with some September scum formations "exceeding recreational guidelines" for toxicity. Any toxicity can vary greatly by sample, by day, by hour, and turn on and off unpredictably. And it is very difficult to perform any complete analysis of all potential toxins that may exist. We will continue to monitor and test vigorously,



and post warnings on local roads and social media. We ask all to stay vigilant, report any suspected sightings, and keep everyone, especially children and pets, out of the water when prudent.

The Advisory Board has approved a **new Rapid Response team**, made up of people who volunteered last summer and were trained to help LKWA and the Water Quality team mobilize quickly to address suspected cyanobacteria blooms, bacteria concerns, and other ad hoc sampling requests. Members, in addition to myself, are Carol and Rick Carlson, Woody Cartwright, Rosemarie Rung, Tim Baker, Scott Parker, Wendy Booker-Downing and Gary Downing, and Lisa Davy. Please contact me or any of these members directly to report any suspected issues.

We have also worked with NHDES to develop **new cyanobacteria signage** to post around the lake when warranted. In addition to the red Advisory signs, we will now be able to post yellow Caution signs when cyanobacteria have been sampled but not yet confirmed, are very isolated, or have lower cell counts.

Everyone wants to know **what caused the cyanobacteria blooms**. Cyanobacteria are present in all NH lakes, and are observed at mid-lake depths in ours each year. Bob Craycraft of UNH states: "The scale of last year's bloom suggests there were more factors than a mid-lake cyanobacteria population that migrated to the surface waters." The interplay of multiple conditions led them to thrive. Most noticeable were the clarity of the water early in the season, above-average temperatures all summer and fall, concentration from evaporation and lack of flushing (less snowpack and general lack of rain most of the summer and fall), and calmness of the lake surface. We also had several storms with intense rainfall and runoff. A key condition, excess nutrients (especially phosphorus), certainly played a role. LKWA's WMP will identify major sources of nutrients within our watershed.

Continued on Page 4

LKWA Water Quality - continued

Since the blooms, our **water quality monitoring activity** has increased significantly. Carol and Rick Carlson and Woody Cartwright have been very active around the lake over the fall, winter and this spring. We put in place new phosphorus sampling and consistent conductivity, turbidity, and temperature testing on all of our major streams feeding the lake. We are thankful for the owners who are allowing us access to their properties. Preliminary analysis of our fall samples shows normal ranges, but one major storm caused elevated phosphorus levels. I have also been out with them to measure flow rates on these streams, and we are identifying and coordinating with FB Environmental to gain more essential data at problem locations. All additional monitoring anticipated or adheres to the recommendations in the FB Environmental water quality review for the WMP. As part of that review, sedimentary core samples and new bathymetric (depth) mapping are scheduled for this summer, and our three monitoring teams and UNH will have a more rigorous testing schedule out on the lake.

I am available for any questions or discussion on **how to better protect our lake**. It takes all of us, doing more than NHDES permitting and regulations require. A great starting point are the guidelines in the LakeSmart program from NH Lakes. LakeSmart brochures and presentations are available on their website.

Resolving the Loon Case

Mark Whary, Kevin Kelly, and John Cooley

As recently as mid-December 2020, our juvenile loon and other transient, migrating loons, were still enjoying open water on Kanasatka. The adult loons had migrated weeks earlier, and, as Nature designed, the juvenile was left to figure it out. Nature's expectation was the juvenile loon would join other loons that had landed on Kanasatka for a rest. All would soon migrate out for the winter! As weather got colder within another week, the lake was quickly freezing and our juvenile loon was alone and restricted to a small ice-free area. Although some unsuccessful attempts at flying were observed, it appeared the open water was too small for a successful loon takeoff. So on Saturday Dec. 18, John Cooley, biologist from the Loon Preservation Committee (LPC), was called for help.

(To read this article in full go to: Kanasatka.org, News and Reports)

Who Is LakeSmart?!

John and Mary Ann McRae received the NH Lakes LakeSmart award in 2019, and Kevin and Sandra Kelly and an Anonymous property owner received their LakeSmart awards in 2020. Huge congratulations to each of these worthy property owners!



More lakefront owners have started their LakeSmart journey and are actively making improvements on their properties, some are very close to achieving the award: Scott and Carol Parker, Wendy and Gary Downing, John and Rosemarie Rung, Lisa Davy, Jane Nash, and two Anonymous participants. Kilnwood association and its 29 property owners will start their LakeSmart journey for their shared beach this summer.

NH Lakes shares the following results to date on Lake Kanasatka:

“Property owners have already made a variety of lake-friendly improvements, including:

- Stop bringing in unpermitted beach sand which contributes phosphorus to the lake
- Stop using herbicides toxic to aquatic life
- Work together to address significant erosion of shared driveway and parking areas contributing sand and phosphorus into the lake
- Eradicate invasive species (knotweed, bittersweet, Japanese barberry) to support growth of native shoreland plants
- Restore shoreline buffer to filter pollution and sediment out of runoff water before it reaches the lake
- Inspect septic systems to ensure harmful nutrients and pathogens are properly treated and not leaking into the lake

One property owner discovered their septic system was in full failure and had it replaced with a state-of-art system.”

Congratulations to all who are empowered by LakeSmart and are taking direct action to protect Lake Kanasatka. We hope to see exponential interest from around the lake as more property owners start their LakeSmart journeys for the health of Lake Kanasatka!

Submitted by Lisa Hutchinson
Lisahutch@comcast.net

Treasurer's Report

Rob Baker rbaker22@gmail.com

Despite the problematic year (pandemic) of 2020 our membership numbers were good. We had 136 paid members just 4 members short of our record year of 2019. We canceled our July annual meeting but the boat parade went on as planned. Then in August our lake was hit with the bacteria which put a stop to our normal water activities. The LKWA Board, and friends of our lake, saw the bacteria issue as a nightmare which needs a solution. The Board without hesitation agreed that the long term solution would be to contract with an environmental firm and have them create a Watershed Management Plan. These plans document our lakes shortcomings and propose suggestions to resolve our lakes issues. With a plan in place we could seek both state and federal grants to combat issues facing our lake. With the passing of Ted Hilton, our greatest Steward of our lake, the Hilton family offered to setup a GoFundMe page with the donations earmarked for our Watershed Management Plan. This effort was a success with almost 19K in contributions to date. The ultimate funding goal hopefully will be reached during the Moultonborough Town meeting currently scheduled for May 15, we'll need all residents to vote on this funding request. Better times are ahead but thanks for your years of support.

LKWA on Instagram

Joel Schwelling joelschwelling@icloud.com

As I write this at the end of March, the sun is shining outside but like most of you, most of my time is being spent indoors. Fortunately summer on the lake is not too far away.



We'd like to let you know about our LKWA Instagram account.

Follow us at [lake.kanasatka.association](https://www.instagram.com/lake.kanasatka.association) and feel free to hashtag your own Lake Kanasatka Instagram pictures with [#lakekanasatkaassociation](https://www.instagram.com/hashtag/lakekanasatkaassociation). You can follow the hashtag as well as direct message pictures to us to post on the Instagram feed. Or send pictures through our Facebook page at www.facebook.com/kanasatka.

We hope you'll share your Lake Kanasatka fun and memories. - Jon Youtz & Joel Schwelling

LKWA Finances

Current Finances 7/1/2020 to 3/19/2021

Balance forward as of 7/1/2020 **\$5,429.80**

Income

Dues	\$1,586.99
Apparel	\$21.00
Interest	\$0.75
Total Income	\$1,608.74
	\$7,038.54

Expenses

Loon Preservation Committee	\$250.00
Lakes Region Conservation Trust	\$250.00
NH Lakes Association	\$250.00
Web Hosting Expenses	\$289.91
Consulting Services	\$750.00
Merchandise	\$216.00
Mailing supplies	\$31.84
PO Box & mailings	\$131.00
501(C)3 application	\$275.00
New Account	\$10.00
Total Expenses	\$2453.75
Checking Balance 3/19/2021	\$4584.79
Petty Cash	\$100.00

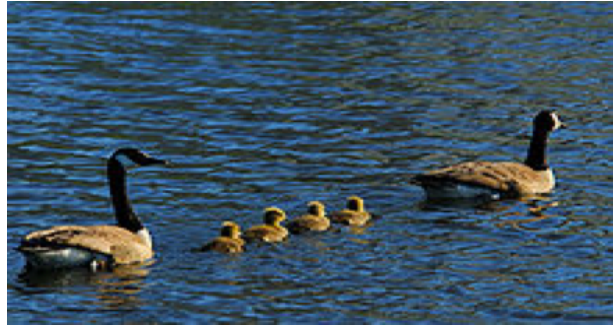
Savings

Balance forward as of 7/1/2020	\$10,900.34
In Memory Contributions	\$25.00
Interest	\$2.51
Contributions Ted Hilton and WMP	\$18,801.57
FB environmental	(\$3,371.50)
Keepers of the Lake Fund (savings)	\$26,357.92

Total Assets LKWA \$31,042.71

GEESE

Unwanted lake visitors!



Branta Canadians aka the Canada Goose is back on Lake Kanasatka. The magnificent migrator has become a residential pest.

The Canada Geese are recent arrivals to our lake, but we have learned quickly why geese and the health of Lake K are not compatible. A hungry goose can consume up to 4 pounds of grass each day. This leads to the elimination of 2 pounds of poop per goose per day. This poop is dangerous to the lake and to it's human and animal inhabitants. It contains Nitrogen and Phosphorus that feed the Cyanobacteria and bacteria such as e-coli and listeria that are dangerous to humans and animals.

At the end of last year I counted, in my small cove off Coe Point Road, 36 geese. This included 3 sets of parents and about 24 goslings. You can do the math as to how much poop is being eliminated into Lake K by those numbers.

The Geese chose Lake K because from the sky they saw the welcome mat, large swaths of lush green grass- their favorite food!

Now is the time for all to become good stewards of our lake and take back the "Welcome Mat" and make Lake Kanasatka undesirable to Geese.

- NH Lakes lists the following to aid Stewards in making our lake undesirable to Geese:

-Discontinue feeding. Wild birds can find their own food.

-Modify landscaping allowing grass to grow longer. Along water edges, leave native vegetation or replant areas with less attractive vegetation such as pachysandra and periwinkle.

-Install barriers along the shoreline. Barriers such as fences and hedgerows have been known to work.

- Use scaring devices and move them around the property periodically. Try large helium-filled balloons, strobe lights, scarecrows with moveable parts and Mylar flags.

- Utilize dogs. Most effective are free-ranging dogs trained to chase birds as soon as they land.

- Hunting may help. For information on the Canada Geese hunting season in New Hampshire, visit: <https://wildlife.state.nh.us/hunting/waterfowl-season.html>.

- Prevent nesting by manipulating the nests. Since waterfowl are protected by law, a property owner must first register with the US Fish and Wildlife Service at <https://epermits.fws.gov/eRCGR/geSI.aspx>.

- Obtain a depredation permit. A Federal Migratory Bird Depredation Permit is required to capture or kill migratory birds for depredation control purposes.

After applying some of the listed techniques above over an extended period of time with little to no success, a depredation permit can be requested. Land owners should apply for a depredation permit only after they have involved their local community in the decision process. If a permit is issued, landowners are expected to continue to integrate non-lethal techniques when implementing any lethal measures. Since capture and removal will result in a reduced population size, other management methods should become more effective in the future. For more information contact 1-866-4USDAWS (1-866-487-3297).

Article submitted by Jane Nash LKWA Vice President

HELP WANTED

- Database Manager
- Committee Members:
- Hospitality
- Lake Host
- Communications
- Weed Watchers

Interested? Please contact:
kirk.meloney@gmail.com

Annual Dues \$25 - Please Pay by July 1st

Please help us keep our records up to date by filling out and sending in the form below with your payment.



Name: _____

Winter Address: _____

Phone: _____ Cell: _____

Email: _____

Check here to save a tree, save a stamp and receive the newsletter by email.

Summer Address: _____

Phone: _____

You can mail this form with your dues payment to LKWA c/o Rob Baker PO Box 774 Center Harbor, NH 03226
Check the box on the form above or send an email to rhbaker22@gmail.com requesting that next year we send you the digital version of the LKWA Spring newsletter.

Thank you for your Donations. With your help the LKWA can continue to protect our lake.

Donations made in memory of a loved one or in support of an organization or person are gratefully accepted and acknowledgements are sent to the donor and recipient.



LKWA is the fortunate recipient of donations in honor of Ted Hilton to support the development of our Water Management Plan. This plan will preserve the ecology of the lake, protect its wildlife, ensure the water quality, and keep Kanasatka pristine for generations to come.

You can make a secure online donation at:

gofund.me/8a3a9ea9

or mail your check to LKWA, PO Box 774, Center Harbor, NH



Lake Kanasatka Watershed Association
 PO Box 774
 Center Harbor, NH 03226

First
 Class
 Stamp



Kanasatka Loons 2020

Another interesting year for our loons. Ice out was declared on April 3rd, and a loon was spotted on April 4th with the second one arriving the next day. On May 27th the loons had laid their 1st egg and were sitting on the nest. The first egg hatched on 6/23. The second egg was unviable and the nest was abandoned on 6/25. The parents then did a great job raising the chick and by late Fall left for their migration to the Maine coast. On December 18th it was reported that our chick was still on the lake as it started to freeze over. The LPC was alerted. They attempted a rescue on the 19th but the loon was too evasive. On December 20th John Cooley, the Sr Biologist with the LPC, stuck with it and rescued our loon. It was then sent to Concord for tests, where it was determined to have a respiratory infection called Aspergillosis. It was untreatable, and the loon was humanely euthanized.

Trish Townsend
 tkmtownsend@gmail.com



For a complete charting of all Loon Nesting successes and failures on Lake Kanasatka and Wakondah Pond from 1975 to 2019, please visit our website at <https://kanasatka.org/loon-nesting/>