



Restore • Preserve • Protect

NIPPO LAKE NEWS

Nippo Lake Guardian Raffle!

To thank those who have become a Nippo Lake Guardian and encourage others to do the same, everyone who has become a Nippo Lake Guardian by Friday September 18th is automatically entered in to a raffle to win a prize of your choice:

- **LL Bean Kayak with the Sarah Nippo logo**
- **YETI Tundra Haul Portable Wheeled Cooler**
- **Solo Stove Bonfire Pit – Large 19.5 Inch – Stainless Steel Outdoor Smokeless Firepit | Portable Backyard Natural Wood Burning Fire bowl**
- **Weber Spirit E-310 Liquid Propane Gas Grill**

For those who have not yet joined, to be included in the Raffle your Nippo Lake Guardian contribution of \$2000 must be postmarked or donated on-line by September 18, 2020. The winner will be selected on September 23, 2020 and announced in the September Newsletter along with the latest list of Guardians.

Congratulations Nippo Lake Community!

Our campaign to Restore, Protect and Preserve our lake has raised over \$90,000. Thirty-eight families and individuals are Nippo Lake Guardians. Only \$40,000 remains to reach our Goal of \$130,000. Please: **DONATE NOW.** www.nippolakeassociation.org or mail a check to Nippo Lake Association, PO Box 213, Barrington NH 03825

As board members have talked with people who are considering donating and becoming a Guardian, questions about the need, safety and effectiveness of the Alum Treatment have been raised. To answer those questions we consulted our Certified Lake Manager, Don Kretchmer, and the New Hampshire Department of Environmental Services. Their responses are below in "Frequently Asked Questions" (FAQs) and our website. Additionally, we are devoting the August 29, 2020 Annual Meeting, 9:00AM to 10:30AM, to a discussion with Don Kretchmer. He will share with us an update on the permitting process, the testing being done to assure the correct application, target timeframe for getting bids out, when we might expect the treatment to happen and answer questions. Exciting stuff!

Please join the Nippo Lake Association Annual Meeting, by Zoom video conference, August 29, 2020, 9 AM -10 AM via this link:

<https://us02web.zoom.us/j/85398871471?pwd=Y3I6WwNFRQ2dJdXB5RnRYY3NhTzZlQT09>
Meeting ID: 853 9887 1471 Passcode: 717292
Or by phone: +1 646 876 9923 US

You may also review the recorded June 2020 member meeting on our Facebook page, and the Q & A on pages 4 and 5 prepared by our Freshwater Scientists.

Who are the Guardians? Why have they committed to making Nippo Clear?

While everyone listed on page 6 has their own personal reason, several themes in why Guardians love our lake stand out. One theme is a family connection which makes Nippo so special. Four generations of the DellaPelle/Doucette (Healy, Kasper) Family have called Nippo their summer place since 1960. Siblings in the Limoncelli/Kornguth and Dickson/Mclver families now summer together at Nippo. Here are their stories.

FOUR GENERATIONS ON NIPPO LAKE. . . An interview with Mario DellaPelle

Mario, how did you end up at Nippo Lake?

One of my best friends, Jimmy Cannon (212 Nippo Court) asked me to come up and help him hang some doors in his camp, a former WWII barracks. The government was selling off these buildings but you had to disassemble and move them yourself.

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Nippo Lake Guardians

ANOTHER FAMILY CONNECTION TO NIPPO IS BETWEEN SIBLINGS. . .

One finds the lake, the other visits and soon wants to be a part of the Nippo community too.

Peter Limoncelli and his sister Susan grew up on Lake Quonnipaug in Guilford, CT with all those wonderful childhood memories that many on Nippo also have experienced. Unfortunately, the community at Lake Quonnipaug was not proactive and years of phosphorus buildup led to extreme vegetation growth making it impossible to swim or boat in certain areas

Because Peter's business is in Barrington, NH he had for years made a weekly commute staying in hotels and playing golf in the summer at Nippo Lake Golf Club, always keeping his eye out for property on Nippo. A few years ago, when Donna Sabin's cottage at 252 Flower Drive came up for sale, "I jumped at the opportunity and bought it immediately". As Eileen and I settled in and began enjoying visits to Nippo year-round, my parents and sister Susan soon joined us at the lake too. After patiently waiting for the right property for her family to come available, Susan and her husband, Matt Kornguth, now fly their Guardian Flag at the cottage in the south cove formerly owned by the Totherows. As Susan said "The beauty and aura of Nippo is instantly recognizable. Our families both recognize the importance of acting now with the fundraising for an alum treatment to avoid what we experienced at home in CT."



DIANE DICKSON SHARES A SIMILAR STORY. . .

She and her husband David were invited to Roland and Sally Chenard's camp almost 20 years ago.



Their first impression of Nippo Lake, with its calm, clear water, deep green woods and cottages lining the shore made them want to have a camp as well. "When Roland learned the Wheelers were selling their camp, he gave us a call, and we acted quickly," notes Diane. "From then on, Nippo Lake has been a favored destination for both our families. We have had many family parties over the years – including reunions and Thanksgiving feasts. My sister Nancy and her husband Kevin McIver, loved being at the lake and have helped us with many of camp projects. They, and their three children, really wanted a place of their own and let us know they were interested in a cottage. When Ken Rice called us to say they were selling their camp, we immediately called Kevin and Nancy who came to look and bought the camp next door. Over the years their children have grown up on the lake and as young adults, continue coming to the lake.

When the cyanobacteria blooms started erupting, we all became concerned. We wanted to continue to entertaining our families, hosting our large gatherings and generally enjoying lake life. We became involved in the Lake Association to learn about how to protect the lake. We participated in the SOAK UP THE RAIN program and made many suggested improvements. Becoming a Nippo Lake Guardian was the natural next step to ensure our lake becomes and remains clear lake for generations."

Nippo Lake Guardians

*An interview with Mario DellaPelle
continued from pg.1*

Jimmy bought ½ of a barrack for \$50 dollars. He disassembled it and brought it up north to the lake where Jimmy's wife Fran's Aunt and Uncle had property.

What happened next?

Jimmy mentioned the camp next door was for sale (204 Nippo Court): "Why don't you take a look at it?" I went next door with my wife Josephine and she immediately said "let's get out of here. This place is a shack!" There wasn't even a bathroom - the toilet bowl was in the bedroom. Being a model-maker and wood-worker by trade I saw the potential and convinced her we could make it into something. That was in 1961 and the rest is history.

What attracted you to the Lake?

The water was so crystal clear. You could see the bottom of the lake for more than 10 feet deep. I also liked that it was spring fed and had no inlets.

Why do you love the Lake so much?

Nippo is my "Happy Place". It's beautiful and brings back a lot of happy memories for me in addition to being a perfect place to cool off.

Why did you donate?

I have been coming here for 59 years with my wife Josephine, daughter Kathy and son Ed. Since then it's always been my family destination. We spent all our weekends and week-long vacations here. Mostly renovating and improving our vacation home in the morning and enjoying the lake in the afternoon. In 1984 my family started to grow and a few years later I had 3 grandchildren. My daughter, son-in-law Paul and their children loved coming up to the lake. Fast forward, I now have 5 great-grandsons who also love family gatherings at the lake.

Why is the Lake so important to you?

The lake brings my family together. I very much enjoy their company. I'm not saying they wouldn't visit, but with the younger kids it would be very difficult to keep them busy if the lake was not usable and worst case a hazard to their health because of a bloom.

Why are the DellaPelle and Doucette families so committed to the Lake?

Buying the cottage next door a few years ago gave the next generations their own place to hang out and make their own family memories. We simply love our beautiful lake, family get togethers, wonderful caring neighbors and various NLA activities.

How did Sarah Nippo become the symbol of our collective efforts to make Nippo Clear?

Legend has it that hill-locked, clear sparkling Nippo Lake was named for a Native American princess, Sarah Nippo, who lived alone in a dug-out on the steep west side of the Lake in the 1700's. Sarah's name came from the word "nipe" which means "still water" and "pos" which means "great". Barrington's early settlers said she was about eight feet tall and lived on wild game and fish. In the summer she found wild berries, tuberous roots and many nut bearing trees to sustain herself. From birch trees she made her canoes and rocky ledges provided material for her darts, spears and tomahawks.

The Sarah Nippo story largely comes from George Buzzell whose farm was on the east side of the lake (land now owned by the Drew family). He was told the tale by his father, who got it from his father, and on back through the family, the first white settlers on Nippo. Every day Sarah could be seen fishing from the same spot on a large boulder that projected from the water catching her daily string of fish. Legend has it that the deep declivity (hole) on this boulder was worn away by Sarah's constant sitting. Because of the current dam, the rock is no longer visible from the shore. When the water is at a certain level, it is possible to paddle a canoe through the hollow space in the center of the boulder. Sarah is believed to have lived over 100 years, though no one knows for sure when she was born, how she came to live at Nippo or when she died.

When he was a young boy George heard strange sounds coming from the pond which bordered their homestead. When he suggested that it might be a loon or a wild animal, his father said "that's old Sarah Nippo calling for rain", and soon after the rain came, filling the pond to overflowing. Sarah Nippo is said to have "cast a lasting charm on the finny denizens in this clear spring-fed pond": Sarah was the guardian of the lake.

More recent lore adds that Bob Soucy (formerly, Nippo Court) found a 9-foot oar in the lake he figured must be Sarah's. When they were eight years old Brendt Corcoran (Harlan Drive) and Tyler Conroy (Flower Drive) claimed to find her lean-to poles on top of Nippo Hill. Sarah's rock, as told by Betty Sinopoli (formerly, Flower Drive) is the big one up on the west side of the lake, up from the dam.

While there are no recorded documents, author Margaret Flanders speculated that 'any person who spends a little time at Nippo can't help but being aware of Sarah as a real person and wonder about her mysterious vanishing, just where her dug-out was located and how she lived through the long cold winter. One can't help but feel a certain charm and peacefulness at Nippo; sometimes calm and tranquil, sometimes rough and disturbed as if in anger and it is very easy to imagine Sarah is still watching over the lake which she must have loved."

Sarah Nippo's legacy is at the heart of the Nippo Lake Guardians, the Nippo Lake Association's fund-raising campaign to restore, preserve and protect Nippo Lake from the adverse impacts of development now and into the future.

Frequently Asked Questions:

Why are we doing an alum treatment and other questions folks have raised with answers from our lake scientist team: Don Kretchmer, Ken Wagner and Sally Soule

1. When did Nippo Lake develop a cyanobacteria problem?

Nippo Lake has experienced cyanobacteria blooms for the past 10 years. The Lake Association, in collaboration with the University of New Hampshire in cooperation with the NH Lakes Lay Monitoring Program, has been monitoring and analyzing the quality of the lake water for the past 30 years. In 2015 the Nippo Lake Association requested research assistance and professional guidance from NH Department of Environmental Services (NHDES) regarding the cyanobacteria bloom to understand the causes and develop a strategy to eliminate the problem.

2. What are cyanobacteria and are they dangerous?

Cyanobacteria are blue green algae which can produce toxins that are dangerous to humans, animals and aquatic life. Cyanobacteria and other algae grow in the water and are primarily fueled by phosphorus, a nutrient, which enter the water through run-off from the land, through groundwater, directly to the lake in dust or rain, or from sediments as part of a recycling process from past inputs. As the cyanobacteria and algae grow, die and decompose, the oxygen levels in the water deep in a lake decrease which leads to reduction in aquatic life and poor water quality. (Our loon population will be jeopardized.) Humans and pets must stay clear of the water during a bloom for it may be fatal for pets and can be extremely toxic for humans.

3. What has the Nippo Lake Association done to eliminate the cyanobacteria problem?

The NHDES encouraged the Nippo Lake Association to hire a lake consultant to identify the sources of phosphorus entering the watershed. In 2017, the consultant was hired and conducted a thorough analysis in conjunction with NHDES. It was determined that the controllable sources of phosphorus came from both the watershed and the sediment at the bottom of the lake. Both sources need to be addressed to reduce or eliminate cyanobacteria blooms. The more phosphorus that can be kept out of the lake, the lower the likelihood for cyanobacteria blooms. This study led to the development of a work plan to eliminate as many sources as possible.

To address watershed sources, the Nippo Lake Association subsequently:

- Hired engineers to design and build a new road with drainage improvements for Golf Course Way;
- Championed several "SOAK UP THE RAIN" projects which included the introduction of new vegetation and culverts which divert run-off away from the lake;
- Conducted a septic system survey to identify any failing systems which could contribute to the problem; and
- Completed several other projects involving private properties and camp roads.

Unfortunately, the cyanobacteria problem continues to exist.

To address the sediment sources, treating the lake with aluminum to inactivate the sediment phosphorus is proposed.

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Frequently Asked Questions (continued)

4. What is the proposed Aluminum treatment?

Nippo Lake has a great deal of phosphorus in the sediments as the result of past watershed activities. Much of this phosphorus is in a form that can be released back to the lake from the sediments when dissolved oxygen concentrations are low in the deep water of the lake. Low dissolved oxygen occurs every summer in Nippo Lake, in part because of the cyanobacteria and algal growth. By helping create low dissolved oxygen conditions in Nippo Lake, the blooms perpetuate themselves. Breaking this cycle is critical to long-term reduction of the blooms. The aluminum added to the lake will hold the phosphorus in the sediments regardless of the amount of oxygen in the deep water of the lake. The aluminum will be added by boat over about a week-long period. The treatment may be split into two half treatments depending on preliminary testing.

5. How can we be certain the Alum will be safe for our residents, lake, fish and wildlife?

Aluminum (aluminum sulfate (alum) and sodium aluminate) has been applied to hundreds of lakes with few reported incidents. Aluminum dosing and application methods have evolved and improved over the decades which have increased its reliability, efficacy and safety. As long as the pH of the lake is kept between 6 and 8, the forms of aluminum that might be toxic do not exist. Modern aluminum treatments include real time pH monitoring and the ability to balance the dosage of alum and sodium aluminate to keep pH in the desired range. Such a program is proposed for Nippo Lake.

6. What evidence do we have this treatment works?

Hundreds of lakes have been treated. The vast majority have seen a long-term reduction in the release of phosphorus from the sediments. The few lakes where treatments that have not worked as well as planned have been determined to have been underdosed with aluminum or had excessive watershed loads that needed to be controlled.

7. When should we expect the treatment to be effective? How long will it last?

The aluminum treatment will accomplish two water quality objectives. After application, it will strip phosphorus out of the water column, and it will also form a floc that settles on the bottom to inactivate sediment phosphorus. The effects of water column stripping should be apparent within days of the treatment. Once fully treated, the sediment release of phosphorus should be greatly reduced. A spring treatment should result in immediate benefits the following summer.

8. After the effectiveness of the treatment wanes, what will we be our next steps?

Continued aggressive action on the watershed portion of the load for the foreseeable future coupled with sediment phosphorus inactivation is anticipated to keep Nippo phosphorus concentrations and cyanobacteria issues at a minimum for a maximum length of time. As the effectiveness of the phosphorus inactivation wanes (15-20 years), a couple of options are available. Either an additional sediment treatment can occur, additional watershed management activities to reduce phosphorus input can occur or a combination of the two can occur. It may also be worth doing a sediment assay (relatively low cost) at ten years out from treatment to determine if the inactivation is still effective.

Who are the Guardians?

Nippo Court

Bishop & Bunten
Kathy & Paul Doucette
Greg & Meaghan Doucette
Kristin & James Healy
Sherilyn & Jonathan Kasper
Fern & Dino Houliares
Donna Massucci &
David Leveque
Denise & Michel Theriault
Michele & Chris Villa

Golf Course Way/ Bailey Way/Eagle Drive

Diana & Don Fortenbacher
Christina & John Maiorino
Crystal & Ron Weitzell
Kim Weitzell & Phil Jodoin

Flower Drive

Alice & Charles Briggs
Christine & Kevin Brigham
Anonymous
Nicole & Tyler Conroy
David Cullen
Kayla & Ryan Fitzgerald
Marie & Kevin Fitzgerald
Donna-Belle & Jim Garvin
Sue & Matt Kornguth
Eileen & Peter Limoncelli
Darlene & Marc Moreau
Elaine & Steve Pierce
Karolyn & John Richard

Sarah Lane

Diane & David Dickson
Clarice & Robert
Girouard
Gale & Stan Hersey
Nancy & Kevin McIver
Gloria & Sam Robinson
Scott

Harlan Drive & Rte 9

Lynda Brushett & Jay Cocoran
Brendt & Madisen Corcoran
Jinette Sturman & Peter Orr
Carol & Roger Thibaudeau

Liberty Lane

Dennis Frangos

