

The Buck Lake Association Inc.

Box 36, INVERARY, ON KOH 1XO

www.bucklake.ca email: Buck Lake Information

"To enhance people's enjoyment of Buck Lake now and for future generations"

Buck Lake News – May 2020

A Message from the Buck Lake Board of Directors

As the May long weekend approaches, things seem very different around the lake this year with events being cancelled and many of our seasonal residents being unable to travel to the lake.

As you are likely aware there will be no Buck Lake Boatilla this summer which supports kids attending Camp Merrywood. This is a huge blow to Easter Seals as the Boatilla is one of their major fundraising events. Although because of COVID-19 Camp Merriwood itself will not open this summer, Easter Seals programming in support of disabled kids will continue. If you are able, please consider making a donation online at http://www.easterseals.org/buck-lake-boatilla/.

We have also been forced to delay the Buck Lake Association's Annual General Meeting, which has usually been held at the beginning of July. Further to the Emergency Management and Civil Protection Act our Board had three options:

- 1. From the usual AGM date to postpone the meeting for up to 90 days
- 2. Hold the meeting via audio-visual means such as Zoom
- 3. By a resolution in writing

Our Board has opted for a postponed date, which would be at end of October at latest. If people can't attend, we will issue proxies to all.

We continue to seek additional people willing to serve on the Buck Lake Association's Board of Directors. If you have a few hours a month to spare and would like to get more involved in the Buck Lake community, or if you know someone who might be willing to help, please let us know. For more information, email bucklakeassoc@gmail.com.



Decisions about other activities such as the annual picnic will be made later in the summer as we see how the Provincial policy and regulations evolve.

For those who are able to be at Buck Lake this summer, please enjoy the lake safely. We look forward to when we can all be together again.

Congratulations to North Country Marine

As you know, some of our local merchants have given long-standing support to our events and by advertising in our newsletters. We wish in turn, to offer our congratulations to Wayne Gordon and North Country Marine who have received an exceptional award for achieving the highest sales of legend boats in the country for 2019. Wayne was also acknowledged for his 25-year partnership with legend boats. Wayne and North Country Marine have been located in Inverary since 1988.



Phosphorus Levels in Buck Lake

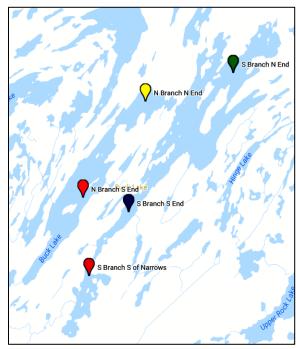
Submitted by Cheryl Savery

Every year a group of volunteers collects water samples from Buck Lake as part of the Lake Partners Program. I will discuss the results in more detail, but first some background information about phosphorus and the Lake Partner water sampling program.

Lake Partner Program

The Lake Partner Program is a province-wide, volunteer-based, water-quality monitoring program. Volunteers collect water samples and make monthly water clarity observations on their lakes. This information allows for the early detection of changes in the nutrient status and/or the water clarity of the lake due to the impacts of shoreline development, other runoff issues (from pastures, beaver dams, etc.), climate change and other stresses.

Volunteer involvement requires the collection of one sample each month (May-Oct). These samples are then sent to the Dorset Environmental Science Centre for analysis. In addition, volunteers also make water clarity observations using a Secchi disk.



Several volunteers have been making these monthly measurements:

- Heidi Linley: North Branch, South End
- Duncan Sinclair: North Branch, North End, and
- Barbra Rose Perry: South Branch, South End
- Cheryl Savery/Gillian Lash: South Branch, South of the Narrows
- Jo Anne Hopkins: South Branch, North End

All these sample locations are shown on the map to the right.

Total Phosphorus

Total phosphorus concentration measurements are used to interpret nutrient status in Ontario lakes, since phosphorus is the element that controls the growth of algae in most Ontario lakes. Increases in phosphorus will decrease water clarity by stimulating algal growth. In extreme cases, algal blooms will affect the aesthetics of the lake and/or cause taste and odour problems in the water.

Lakes are generally divided into 3 categories based on their phosphorus content.

- **Oligotrophic** (less that 10 µg/L total phosphorus): These are dilute, unproductive (healthy) lakes that rarely experience nuisance algal blooms.
- **Mesotrophic** (between 10 and 20 μg/L total phosphorus): These lakes show a broad range of characteristics and can be clear and unproductive at the bottom end of the scale or susceptible to moderate algal blooms at concentration near 20 μg/L.
- **Eutrophic** (over 20 µg/L total phosphorus): These lakes exhibit persistent, nuisance algal blooms.

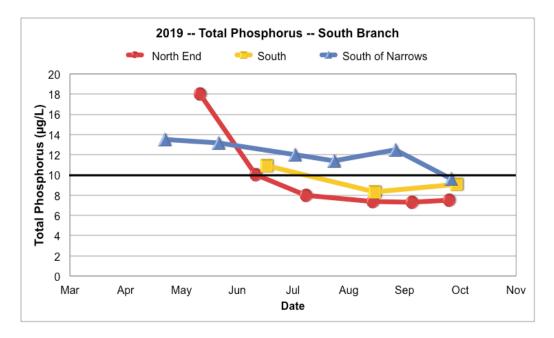
So the important number to remember is 10.

Below 10 is good.

Above 10, not so good -- More algae blooms -- More weeds

South Branch

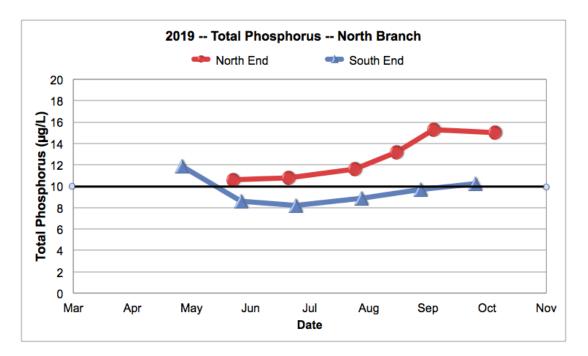
The following chart shows the total phosphorus in Buck Lake at the three sample points on the South Branch. The black line on each chart at $10 \mu g/L$ highlights the limit at which our lake water quality is considered good.



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While the results are generally good, it should be noted that the readings from south of the Narrows are higher than at the other two sample locations. This is one of the most highly populated areas of the South Branch, indicating that human development around the lake is having a real and measureable impact on the phosphorus levels. The significant rainfall and high water levels last summer may also have impacted the phosphorus levels in the lake.

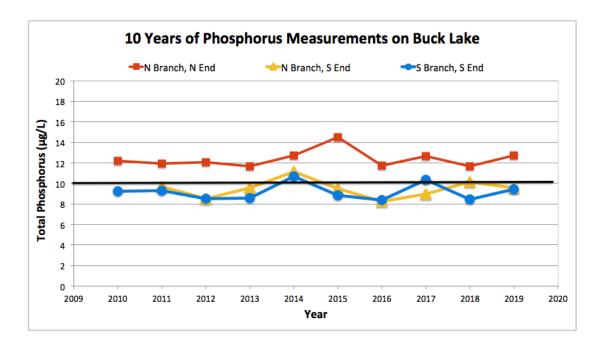
North Branch



The North Branch phosphorus levels were also generally good. Similar to the sample from south of the Narrows on the South Branch, the sample at the north end of the North Branch is quite a bit higher in phosphorus than the sample from the south end of the North Branch. The north end is the area of the North Branch with the highest population density again indicating that human development is having an impact on our lake water quality and we need to be careful about how our activities affect Buck Lake.

Annual Averages

In addition to looking at the measurements from one year, it is interesting to look at the averages over multiple years. Samples have been collected from three locations on Buck lake for many years. Reassuringly, the results show that there has been little change in the phosphorus content in Buck Lake.



What Can I Do?

Although one person cannot "fix" the phosphorus problem, many small actions can make a big difference. Some of the most important things that lake front property owners can do to reduce the impact of their property on the lake's water quality include:

• Reduce or Eliminate Fertilizer Use

Remember that what goes on your property goes into the lake! That especially includes fertilizers applied near the water. Rain and irrigation carry these fertilizers into the water and encourage the rapid growth of aquatic plants and algae.

For every pound of phosphorus in the water, 500 pounds of aquatic vegetation are produced!

• Maintain Your Septic System

Pumping out your septic tank on a regular basis is critical to reducing nutrient flows into lakes. The frequency of your pump-outs will vary based on the size of your tank, your family size, and the number of appliances you use. As a general rule, pumping your septic tank every 2 to 3 years is a good practice.

• Leave a Wide Strip of Deep-rooted Plants along the Shoreline

Instead of planting and mowing grass, plant wildflowers, ornamental grasses, shrubs or trees. These plantings absorb and filter runoff that contains nutrients and soil, as well as provide habitat for wildlife.

Use Only Soap or Phosphorus-Free Detergents.

Good old-fashioned soap is probably best but you can also buy phosphorus free detergent products especially for washing dishes and clothes. It is also a good idea to avoid hand sanitizers and related antibacterial products; they can negatively affect the bacteria working away in your septic system.

All of the data from the Lake Partner Program is available online. To access all the sampling results click here...

Lake Ecosystem Advisory Committee for South Frontenac

Submitted by: Greg Fisher

In a newsletter last fall, we mentioned that at the 2019 Lake Association meeting with Council, the concept of a formal "Lake Association Council committee" was introduced. There had been discussion at the meeting that the current format of the annual Lake Association meetings seemed to result in the same topics being discussed annually but there was not a lot of follow up taking place. At that time, The Mayor provided direction to the CAO to explore options for the creating of the Committee. As a result of this initiative, at the April 14 Council meeting, the terms of reference for the "Lake Ecosystem Advisory Committee" was introduced.

The stated purpose of the Committee is to "support the health and welfare of the Township's lake ecosystems and the enjoyment and use of those lakes by residents, visitors and future generations through specific duties and functions outlined within these terms of reference and other items that may be specifically referred to the Committee by Township Council from time to time."

The Committee is to be comprised of a combination of Council representatives, members from lake associations and residents who own and/or reside on lakeshore property. There will also be township staff representation and representation from the local Conservation Authority who will serve as non-voting resources to the committee.

In summary, the specific duties and functions of the committee will be as follows:

- Host an annual Lake Associations Forum;
- Compile and provide to Township Council and Senior staff a submission relating to the next year's budget and strategic plan implementation activities related to the mandate of the Committee;
- Advise on development of a Lake Study Grant program;
- Collect feedback from Lake associations, lakeshore owners and residents
- Provide advice or recommendations to the Township
- Foster meaningful, respectful and productive working relationships

In due course I am sure the Township will be reaching out to Lake Associations and residents for those individuals who may have an interest in joining the Committee. Further details related to the Committee can be found in the Council Agenda for April 14, 2020 at the following link https://southfrontenac.civicweb.net/filepro/documents/56653

We will keep you informed as further information is available.

PERTH ROAD STORE

5504 Perth Road Crescent Box 1049 Perth Road, ON K0H 2L0 (613)353-6234

> perthroadstore@xplornet.ca Monday-Friday 6:00am-7:00pm Saturday 8:00am-6:00pm Sunday 9:00am-5:00pm

Why I love Lake Trout and You Should Too!

Submitted by Gillian Lash

We already know that Buck Lake is a very special place. But did you know that it is one of the very few lakes in the world that contain Lake Trout? In Canada, only one percent of our 2 million lakes contain Lake Trout, representing 20 - 25 percent of all Lake Trout lakes in the world! If you are an angler, this is great news. But why does the government pay special attention to those lakes that do have Lake Trout?

Lake Trout are the only major indigenous sport fish species that is adapted to a lake such as Buck Lake which has low nutrient levels, high dissolved oxygen and deep areas of very cold water. Lake Trout are also known to have a slow growth rate, are late to mature (reproduce) and have a low reproductive rate. Their stringent living environment coupled with the lengthy and low reproductive rate puts their existence at risk. In fact, 5% of



Ontario's Lake Trout population are already extinct with 43% of that decrease coming from southeastern Ontario. Due to their habitat sensitivity they are viewed as a reliable indicator of a lake's health. For this reason, the province of Ontario has identified Lake Trout populations as a target of concern and with a need to manage closely.

This resulted in approximately 2,000 lakes being identified as Lake Trout lakes which means that the health of these lakes is monitored closely. The majority of these lakes have naturally producing Lake Trout populations, such as Buck Lake, while 222 lakes are classified as put-grow-take, which means that they are stocked with fish.

At a very high level, our environmental strategies are derived from Canada's Constitution which are then translated through federal and provincial legislation. With regards to the management of Lake Trout, there are several provincial agencies which play a role:

- Ministry of Natural Resources & Forestry (MNRF): set the long-term strategic direction and priorities, create programs, manage using regulations and licensing
 - Ontario Fishery Management Zones (FMZ): the province is split into 20 zones that establish and monitor goals, objectives and tactics that link to the overall MNRF strategic direction
 - Identifies & monitors Lake Trout lakes
 - Buck Lake has been deemed a highly sensitive Lake Trout lake located in FMZ
 18
- Municipalities: develop policies and by-laws that support the above initiatives
- Citizens: take action



Each "entity" has an important role to play. MNRF has communicated that research shows that residential development on the shores of lakes and rivers has the potential to negatively impact water quality, fish habitat and fish populations. As mentioned earlier, Lake Trout require low nutrient waters. Low nutrients in this case mean low amounts of phosphorus and nitrogen. Too much phosphorus results in excessive plant and algae growth, reduced water clarity and decreased levels of dissolved oxygen (another requirement for Lake Trout). According to Fisheries Management, the primary source of excessive phosphorus in inland lakes comes from septic systems associated with cottages and year-round residences.

The Township of South Frontenac then weaves this information into the framework of its Official Plan. Items include land area policies that support the environmental strategy and vision of the Ontario Ministry of Natural Resources & Forestry. Specific to Lake Trout lakes, in Sections 5.2.7 and 5.2.8, the South Frontenac Official Plan outlines policies for land development or site alterations that are adjacent to these sensitive environmental areas. One example is specific to highly sensitive Lake Trout lakes (such as Buck Lake), where they are "deemed to be at capacity for development with respect to additional nutrient loadings..." and "generally speaking, the creation of new lots within 300

metres...will not be considered for approval...". The requirements for septic system setback are also more restrictive due to the need to protect the environment of highly sensitive Lake Trout lakes. (https://www.southfrontenac.net/en/living-here/resources/OfficialPlanFinalOct2013.pdf)

Along with policies and by-laws, citizens also play a critical role in preserving or improving the health of Buck Lake. These actions not only impact the ecosystem of Lake Trout, but our own ability to enjoy the lake whether that be to swim, boat, fish or observe other wildlife species. Through the MNRF, we also know that shoreline clearing, fertilizer use, erosion and overland run-off can also contribute excessive phosphorus levels.

So, what concrete actions can we take to help preserve the sensitive ecosystem of Lake Trout and thus the health of Buck Lake? Well, I for one, am doing the following:

- I have my septic tank emptied and the septic system checked every two years;
- I am in the process of converting my shoreline back to its natural state;
- I have planted 160 native trees on my property to naturally help mitigate land and shoreline erosion;
- I check the drinking water quality of my well twice a year;

I try to follow safe boating practices when using my motor boat which can also help to limit shoreline erosion (Watching Your Wake)

- Maximum speed of 10 km/h within 30 metres of shore
- Water-ski, tube and wake-board well away from shorelines. Try to operate at least 100 metres from shore and use the <u>entire</u> length of Buck Lake branches
- Look behind to see and understand the impact of your boat's wake on shorelines

All of these actions have a positive impact on the health of Buck Lake and the Lake Trout ecosystem, not to mention mine and everybody's ability to enjoy all that Buck Lake has to offer! According to Lisa Salomon, Management Biologist at the Ministry of Natural Resources and Forestry, Lake Trout fishing in the south branch of Buck Lake is the best in southeastern Ontario! So what actions are you, your family or visitors going to take to help Buck Lake stay healthy?



Reminders:

Buck Lake Calendar needs you ALL YEAR LONG!

Please send your amazing Buck Lake pictures in full resolution to Cheryl Dawson at dawson.cheryl13@gmail.com all year long... right when they happen. Please: no people in the photos.

The Buck Lake Community Directory

To be added to and receive the Buck Lake Community Directory, please email your contact information (name, lake address and up to 2 email addresses and phone numbers) to bucklakeassoc@gmail.com

Facebook Group

We have a very active group on Facebook with over 566 members. Please feel free to join.

Coming Events:

Due to COVID 19 there are currently no events planned.



Gord McDiarmid

Barrister, Solicitor,
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(and a happy year-round resident on
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Office: 3 Rideau Street, Kingston Phone: 613-546-3274 Fax: 613-546-1493

Ron's Home & Cottage Services

- Plumbing, electrical, tiling, window replacement
- Bathroom renovations, maintenance
- Closing cottages for winter/water supply & drain systems & spring reopening
- Renovations of all types
- Call Ron at 353-6919 (Buck Lake Resident)

In order to promote the spirit of Buck Lake, we invite your comments and suggestions for newsletter articles or announcements. Mail to: Buck Lake Information

Renew your Buck Lake Association membership on line. A receipt will be emailed to you to confirm your payment. A service provided by FOCA: http://foca.on.ca/product/buck-lake-association/