



NEWSLETTER

SUMMER
2025

We're dedicated to keeping Charleston Lake beautiful in every way!

www.charlestonlakeassociation.ca

PRESIDENT'S MESSAGE

Dear CLA Members,

Summer is officially here. After unusual winter weather patterns, and a wet and rainy spring, we are seeing the usual signs of the season all around the lake. And with all that is going on around the world these days, our beautiful lake remains a quiet refuge, where we can just get away from it all.

I would like to begin by welcoming two CLA/CLEA directors into new roles. **Fred Milko** takes over from **Rocci Pagnello** as VP North. Rocci recently stepped away from the Board after many years of tireless service, notably on the youth summit, student bursary program, and fish & wildlife initiatives. Rocci, you will be missed! We are also welcoming **Mike Ferris**, an Eastern Ontario businessperson and long-time lake resident, to the Board of CLEA, our environmental arm. Mike, great to have you – we look forward to your contribution.

Over the Winter and into the Spring and Summer, your volunteer CLA and CLEA directors have been very hard at work on a range of initiatives including a few I would like to call out here:

- Sustaining our **Shoal Marker program**. CLA director **Robbie Gibson** and his team installed some 75 Shoal Markers all around the lake. We extend our thanks to Robbie and his on-board and on-shore team, who made it possible.

You help make Charleston Lake a safer place for us to enjoy.

- Maintaining and installing **Loon Nesting Rafts**. CLA director **Dwayne Struthers** and his team maintain 7 rafts at different locations around the lake. For the 2nd year now, select rafts will feature digital video cameras. Our Social Media team will post images from time to time on our FaceBook and Instagram pages, and also on the CLA Website. And please do not approach the nesting rafts. We don't want the adults to flee the nest, leaving it vulnerable to predators.
- Supporting the **Canada Day Celebration**, this year being held on **Saturday, June 28th**, is a highlight of the social calendar. This year, CLA is proud to support a **live music venue at the Main Dock**. Come on by and tap your foot to the sounds of a great local band, and meet and greet fellow Charleston Lake families.
- New for this year will be a CLEA-funded **Water Testing Program for Tributaries to Charleston Lake**. CLEA last tested our tributaries back in 2001, and found several sources of unwanted elements flowing into the lake. This led to a remediation program, implemented with partners such as the Leeds & Grenville Stewardship Council. This year's testing, in all of the main tributary basins, will provide a vital update on the lake's water quality. A special call-out to CLA VP Environment **Bill Hallam**, and our water testing volunteers

John Willson and **Gary Nielson** for making this possible!

- Also new for this year: We are aiming to work with the municipalities of LTI and Athens Townships on a **Septic System Inspection Program**. In recent years, septic inspection programs that were once run by Provincial Health Units were "downloaded" to the Municipalities, who do not always have the means (financial and capability) to take them up. We know that well-functioning septic systems are critical to lake water quality and property resale values. CLA and CLEA will be seeking ways to collaborate with the municipalities to ensure that we can address this current gap.

In closing, CLA would like to send a special message to our US members, many of whom have been friends and neighbours for decades: While some of the recent rhetoric coming out of Washington about Canada has deeply offended many Canadians, we at CLA are able to distinguish between a political or trade disagreement between our countries, and the many Americans who love Charleston Lake and want to preserve and enhance it as we all do.

*Yours in preserving and
enhancing Charleston Lake,*

Michael McAdoo
President
Charleston Lake Association

OUR MAJESTIC LOONS

When we imagine a warm summer evening by the lake, we can see the still water, feel the warm breeze, and hear the distinctive and haunting call of a loon echoing across the lake. For many, this moment defines the magic and tranquility of Canadian summers. However, this iconic experience is at risk.

A while back, someone asked me this question...Why loons? What makes this particular species more important to monitor than any other bird or creature that lives here in the Charleston Lake area?

Today I will try to help understand the logic behind the loon survey.

The measuring of Loon productivity is a powerful indicator of ecosystem health, and as such, an excellent indicator of lake health. Loons are high on the food chain, and therefore more sensitive to damage than lower level species. Toxic materials are absorbed and accumulate in the food chain. They build-up greater and more dangerous amounts in top predators like loons. For this reason, Loons are more vulnerable

to pollutants like mercury, and changes in water chemistry than other wildlife. By monitoring loon numbers and chick survival, scientists can identify trends in lake health and take steps earlier to protect a lake and its inhabitants.

The number of chicks that Common Loons produce has declined by 30% across Canada since the early 1990s, and the number of nesting adults is now declining as well. We know this because of the Canadian Lakes Loon Survey. It plays a vital role in identifying numbers, as well as some of the Common Loons' challenges. Birds Canada partners with Provincial, Federal, and International research groups and scientists to unite efforts across borders. They work together to closely examine what the data can tell us from throughout North America. The information gained can be used to help understand further why our beloved loons are in trouble and to figure out what we should do to protect this species.

In essence, loons serve as a "canary in the coal mine" for lake health, providing valuable information about the well-



being of the ecosystem and the need for conservation efforts.

If you would like to read more about loons, you can find a very informative article by Doug Tozer (Director, Waterbirds and Wetlands, Birds Canada) at aba.org/common-loon-secrets.

The CLA's officially submitted numbers to Birds Canada for 2024 totals a maximum of 24 adults and 7 surviving chicks.

Let's all do our part to protect our planet and preserve our future, so that we will continue to be able to enjoy the Loon's iconic call for generations!

Katie Baker
Fish and Wildlife

AN UPDATE ON THE BASS SPAWNING SANCTUARY PROJECT

Dave Philipp Fisheries Conservation Foundation

Over the past 30+ years, our black bass research group (scientists from Carleton University, University of Illinois, and Fisheries Conservation Foundation) have studied local smallmouth and largemouth bass populations in the area. These long-term studies have made the following relevant findings:

- For bass fry to survive and recruit into a population, nesting male bass must continue to guard their offspring against predation until their fry are developed enough to be independent of their male pguardian parent – a total of 4-6 weeks.
- During that parental care period, if the male parent is removed from the nest via angling, his offspring can be consumed by predators very quickly.
- Despite the current regulations that prohibit bass fishing until the 3rd Saturday in June, the level of

angling on nesting bass during their reproductive period has increased dramatically in lakes across the region. This has resulted in:

- decrease in the abundance of spawning males and females
- decrease in nest success rate
- decrease in the number of successful independent offspring
- decrease in the production of juveniles each year

Bottom Line: Populations of largemouth and smallmouth bass across the region are suffering from recruitment overfishing, a phenomenon that occurs in many heavily exploited fish populations. This phenomenon occurs in bass when high levels of angling bass off their nests prevents the replacement of young fish (recruits)

into the population, leading to long-term declines in the fishery.

In theory, the current closed season for bass fishing is designed to protect nesting bass from angling, but the regulation provides a well-used loophole for cheating because fishing is allowed for other species. As a result, the current regulation fails to protect even a single bass from illegal angling while it is nesting.

Clearly, we need to develop a different set of regulations.

We have proposed a new regulation strategy to protect nesting bass, the use of Bass Spawning Sanctuaries (BaSSs). These BaSSs are designated areas of a lake that are closed to ALL fishing until the parental care period has been completed (early July for many lakes). This regulation is easily enforced because anyone fishing within the

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sanctuary during this period is clearly breaking the law.

Our Research Group was granted permission by the OMNR to conduct a Proof of Concept experiment wherein BaSSs are being tested in two lakes in the region, Opinicon and Charleston.

To examine the effectiveness of these sanctuaries, we first monitored nesting success, reproductive success, annual juvenile production and angling pressure in 2022 and 2023, to collect baseline data before the BaSSs were instituted. Then in 2024 and again this year, we are comparing the reproductive

productivity of the bass within the BaSSs to bass outside the BaSSs. After the first year we have already seen a huge jump in offspring recruitment rates. The productivity inside the BaSSs is 5X greater for largemouth bass and 10X greater for smallmouth bass compared to outside the BaSSs. Our recommendation for next steps to understand if the innovative BaSS regulation can be applied universally, is to expand the initial proof of concept study to include a number of lakes in the region that vary in size and depth, fishing pressure, and bass composition.

In addition to assessing how well the BaSSs are performing in protecting

bass reproduction, the following studies are also being conducted to increase our understanding of bass populations:

- Using acoustic telemetry to track post-spawn movement of male bass
- Measuring the demographic changes in bass populations since the 1990s
- Determining the how angling has changed bass catchability over the past 30 years
- Assessing angler perceptions of the trends in fishing quality and their acceptance levels for the use of the innovative BaSS regulation.

THANK YOU FOR ASKING

I noticed this Spring many turtles basking on logs or rocks in Charleston Lake. Can you tell me the status of the turtles on Charleston Lake and the different species that might be around.

Webster Bay Resident

Let's Shell-ebrate and Protect Charleston Lake's Turtles!

Charleston Lake, located in Ontario's Frontenac Arch Biosphere, is home to five native turtle species. These reptiles are not only fascinating but are also essential to the health of the lake's ecosystem. Unfortunately, four of the five species found in the area are considered at risk in Ontario, facing a variety of environmental threats.

The **Common Snapping Turtle** is Ontario's largest freshwater turtle, known for its strong jaws and its prehistoric appearance. It is classified as Special Concern in the province. These turtles are oftenseen crossing roads near Charleston Lake, making them vulnerable to vehicle collisions. Illegal harvesting and pollution from shoreline development also pose significant threats.

The **Blanding's Turtle** is easily identified by its high-domed shell and bright yellow throat. In Ontario, it is listed as threatened, meaning it is likely to reach endangered status if current threats persist. Around Charleston Lake, these turtles are often spotted in shallow bays and marshy inlets during the spring nesting season. Threats include habitat loss and development around the Lake, road mortality during nesting migrations,

and nest predation by animals such as raccoons and skunks.

The **Midland Painted Turtle** is the most commonly seen turtle in Charleston Lake, often found basking on rocks and logs. It is not currently at risk in Ontario, though it is listed as Special Concern in Canada. These turtles are resilient and adaptable, but they still face threats from changes to the shoreline, nest predation, and increased recreational activity on the lake.

The **Northern Map Turtle** is named for the map-like lines on its shell. This turtle species prefers the clean, open waters of Charleston Lake. It is listed as Special Concern in Ontario. These turtles are particularly sensitive to water quality and are often disturbed by boat traffic, especially in popular areas around the lake, like Huckleberry Hollow and Slim Bay. Habitat loss from development and pollution also threaten their populations.

The **Eastern Musk Turtle**, also known as the "stinkpot" due to the musky odour it releases when threatened, is a small, secretive species. It is also listed as Special Concern in Ontario. This turtle is vulnerable to wetland destruction, water pollution, and boat strikes, especially since it often comes to the water's surface to breathe.

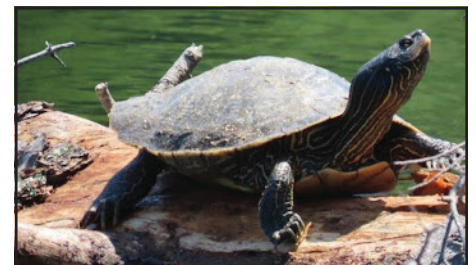
If you frequent the Charleston Lake area, you're sharing your backyard with some pretty amazing neighbors, five native turtle species, four of which are at risk in Ontario! These amazing creatures



A Blanding's Turtle, easily identified by its high-domed shell and bright yellow chin!

help keep our lake healthy, but they need our help to thrive. Slow down when driving near wetlands and nesting areas (especially in spring and early summer) and keep an eye out for turtles crossing the road. Boaters—ease off the throttle in shallow areas where turtles love to bask or come up for air. And don't forget to report turtle sightings, using iNaturalist or the Turtle Guardians website. Together, we can make sure Charleston Lake remains a safe place for turtles for generations to come. Let's protect our lake, one shell at a time!

*Response thanks to Clarissa Duthie
Acting Chief Park Naturalist
Charleston Lake Provincial Park*



A Northern Map Turtle perched on a log, basking in the sun.

**Charleston Lake Association &
Charleston Lake Environmental Association**

Comparative Combined Financial Report

Statement of Revenue & Expense

<u>Revenue</u>	<u>2024</u>	<u>2023</u>
Membership Dues	\$24,760	\$24,640
Club \$100 Donations	\$17,350	\$16,918
Golf Tournament	\$5,642	\$5,298
Other Donations	\$2,149	\$2,406
Interest and Other Income	\$5,393	\$3,059
Total Revenue	<u>\$55,294</u>	<u>\$52,321</u>
<u>Expenses</u>		
General Administration	\$13,838	\$12,779
Information Center	\$10,037	\$6,720
Youth & Social Programs	\$4,357	\$4,914
Safety	\$12,780	\$3,031
Miscellaneous	\$8,405	\$3,414
Total Expenses	<u>\$49,417</u>	<u>\$30,858</u>
Total Environmental Project Costs	\$3,855	\$22,215
Total Expense & Project Costs	<u>\$53,272</u>	<u>\$53,073</u>
Unexpended Funds Current Year	\$2,022	-\$752
Unexpended Funds Prior Years	\$131,081	\$131,833
Unexpended Funds at Dec. 31st	<u>\$133,103</u>	<u>\$131,081</u>

Balance Sheet at Dec. 31st

	<u>2024</u>	<u>2023</u>
Cash & Cash Invested	\$128,197	\$128,055
Accounts Receivable	\$5,699	\$4,125
Total Assets	<u>\$133,896</u>	<u>\$132,181</u>
Accounts Payable	\$793	\$1,100
Unexpended Funds	\$133,103	\$131,081
Total Liabilities & Unexpended Funds	<u>\$133,896</u>	<u>\$132,181</u>

Prepared by: **Wayne Gill**
Secretary Treasurer

FOR THE LOVE OF THE LAND

Over the past couple of decades, the Thousand Islands Watershed Land Trust has enjoyed a great and productive working relationship with the Charleston Lake Association – and that certainly continues today and will into the future. It's with very good reason.

TIWLT's working area is where every spring-fed creek and every raindrop that falls makes its way downstream to the Thousand Islands. The rich greens and blues at the centre of this landscape is Charleston Lake. Your lake is truly at the heart of the exceptional nature of one of the most ecologically rich places in Canada. Conserving the forests and wetlands here not only keeps your lake healthy and vibrant – it preserves an oasis of the type of nature that is key to Canada's very identity. And the most important word in our name is

“trust” – the lands TIWLT conserves are held in trust, for all, forever.

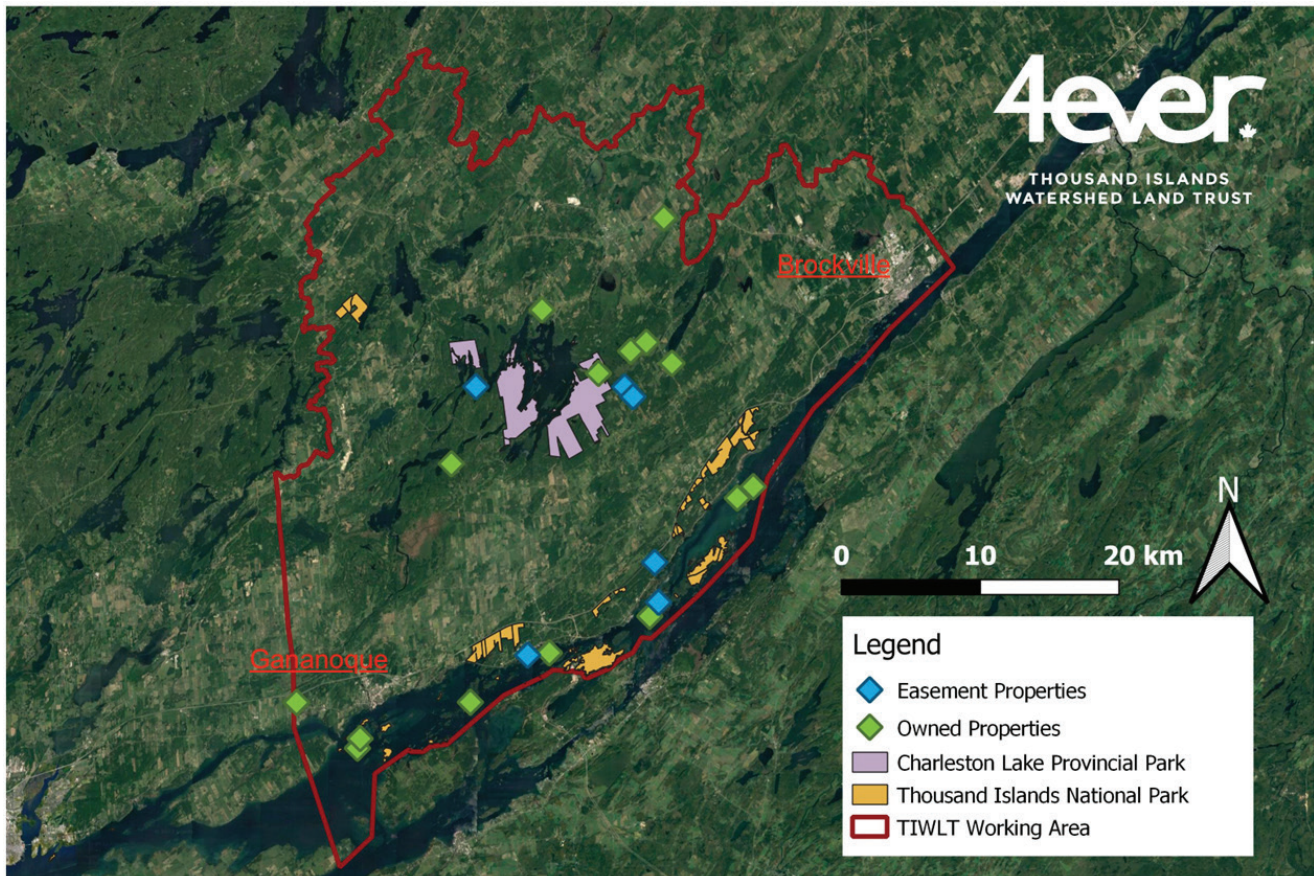
Over the last few months, TIWLT has conserved three more properties around the lake. One adds onto the Whip-poor-will Woods property at the east edge of Charleston Lake Provincial Park. Another is a rich wetland that's part of the complex of Beales Creek that flows into the lake's northeast corner. The third is at the south of the park, where the trail to Blue Mountain runs through it – once private land and now making an actual public access route to that scenic icon lookout.

There are a number of other conservation projects in development all around the lake. We can link a lot of this activity to the conservation toolbox workshop we held in partnership with the CLA last June. About 60 people came to learn about the tax tools TIWLT has to offer landowners, and several of

those became conservation projects. In fact, that leads us to present again, this time in Gananoque, 9:00 am, July 12, at the 1000 Islands History Museum – legal, accounting and realty experts on hand. If you missed the workshop last year, or just want to find out how this land trust goes about conserving the land you love – it's free to one and all. Here's a map to show where the trust's properties are generally located...

There was much more about this conservation work in our recent newsletter, which you can find on the website tiwlt.ca, under news. To keep right up to date, consider contacting us at info@tiwlt.ca to sign on for our occasional mail-outs – or ask any questions of us.

Don Ross
*Thousand Islands
Watershed Land Trust*



LEARN TO RECOGNIZE BLUE-GREEN ALGAE

Blue-Green algae is happening more frequently in Ontario lakes, including Charleston Lake. Because it is toxic we should learn to recognize it. People should not swim near it, animals should not drink water near it, and people should not source their drinking water supply from the immediate area. The Blue-Green algae is most notable in the matted form, but can also present itself as a scum or paint. Fresh blooms often smell like freshly mowed grass, while older blooms may smell like rotting garbage. It most often occurs in late summer or fall in our lake type, in warm, shallow, calm water where there is increased nutrient loading such as phosphorus. They are mostly short duration and break up with water agitation mostly from wind and weather changes.

There are some other algae that look a little bit similar to Blue-Green algae. In the last 15 years there has been more green filamentous algae that has bright green and sometimes bluish colour. This is a floating, fibrous, sometimes cloud-like algae that can be quite annoying but is not toxic on its own. In the matted, surface form it can accumulate some of the bacteria from other algae



that in rare cases make it toxic. It normally occurs in spring or after heavy runoff. With the increased water clarity and temperatures in the last few years filamentous algae has become more frequent. The presence of Zebra mussels is an additional factor promoting its growth. These mussels tend to concentrate nutrients from open waters to the shore areas where the filamentous algae blooms occur. Best to avoid the matted surface versions. Also not to be confused with Blue-Green is the yellow-green pollen that occurs most heavily in the spring.

There are articles on our web site with pictures to help understand Blue-Green algae. Ontario has a



site that addresses Blue-Green algae <https://www.ontario.ca/page/blue-green-algae> . including an on-line and hot-line number to report Blue-Green Algae. MOECP then confirms the presence and notifies the local health unit. The health unit decides whether or not the situation requires public notification and/or response. We would like you also to report to CLEA at info@charlestonlakeassociation.ca as we may have some testing capability. We hope to have MOECP at our AGM to present additional information on Blue-Green algae. Please be aware and be cautious.

John Willson

– with help from many sources

SHOAL MARKERS AND BOATING SAFETY 2025

The shoal markers were placed in the lake early in May. As always, thanks to my crew, Marty Rukavina, Brent Moulton, Ben Rukavina, Josh Fenlong, Clayton Gray, Danny Gray, Luke Severson and Andy Bennis.

Thank you to Faith and Gary Bellisle who generously lend us their pontoon boat every year - we couldn't do it without their pontoon boat and mine from the Marina, which was used for the Southern end of the lake. Clayton and Danny Gray and their team will be looking after the 30 markers at the Southern end.

As we do every year, we are making new anchors and chains and replacing solar lights on a regular basis. All this is funded by the Charleston Lake Association to ensure safety on the lake.

So, boat safely, obey boating rules and avoid accidents this season.

Robbie Gibson, *Safety and Law Enforcement*

CHARLESTON LAKE LOON RAFTS

Do you ever wonder what goes on in the wild with our Charleston Lake loons? This year, the Charleston Lake Environmental Association and Joshua Burch Photography have teamed up to install 4 cameras on 4 of our loon rafts to see the loon nesting cycle. This is a great opportunity to see what actually happens on the nests. In addition to loons mating and laying their first egg, we have also seen a mallard duck lay four eggs, otters eating and playing in the rafts, bank beavers trying to steal the hay, a water snake sunning on the raft, crows eating the duck eggs and raccoons just sniffing around.



Check out the weekly posts at charlestonlakeassociation.ca to see this great wildlife opportunity.

WATER QUALITY MONITORING ON CHARLESTON LAKE

A SPECIAL STUDY for 2025

The Charleston Lake Association and its charitable companion, the Charleston Lake Environmental Association have been engaged in water quality testing on the lake in one way or another since 1971. This is an enviable record that has resulted in a valuable data set that few lakes can match. Our lake is healthy and beautiful and this is something we cannot, and do not, take for granted.

In 2000 and 2001, a special study was carried out to examine the tributary streams flowing into the lake. The aim at that time was to identify sources of contamination, either fecal coliform, excessive nutrients or heavy metals entering the lake from the surrounding watershed. When problems were found, they were addressed through partnership with the Leeds Grenville Stewardship Council in collaboration with willing landowners. A lot of good work was done at that time,

upstream in the tributary waters and Charleston Lake was a direct beneficiary. That was 25 years ago and it seems appropriate to repeat

the effort now, to see if things have changed in the intervening years

Over the late winter and spring, CLEA developed and sent out a request for proposals (RFP) to find a consultant with the skills and experience to provide guidance to our volunteers on how to carry out a Tributary sampling project, using the best available science and up-to-date sampling protocols. The search was successful and, at the time of this writing, plans are being made for a kick off meeting to get the 2025 water sampling season started. The consultant will provide the following types of service and guidance to CLEA

- reviewing all past water quality reports and data to set the context
- review and recommend improvements to the way volunteers currently collect data on the lake
- to create a protocol and template for sampling the tributaries and train volunteers in how to use it
- analyze and report on the results
- if issues are found which warrant further action,

make recommendations on what could be done

- make recommendations on if/how our current water sampling program could be expanded to include criteria to predict and prevent Blue Green Algae blooms

It is important to understand that there are many potential sources of contaminants for a large body of water like Charleston Lake and tributary streams are but one of them. Shoreline revegetation, septic system inspections and minimizing fertilization are three other areas that need continuous attention if our lake is to remain healthy and resilient to the big issues of climate change and invasive species that are now part of life, whether we like it or not.

We are looking forward to a busy sampling season and are sincerely hoping that we find nothing to report!

John Willson, Gary Nielsen
Water Quality

SEPTIC SYSTEM INSPECTION PROGRAM

Charleston Lake Association and Charleston Lake Environmental Association would like to see a program of Septic System Inspection implemented. To this end, we have sent a letter to the Mayors of the two municipalities, Leeds and Thousand Islands and Athens townships.

Included is a brief excerpt from the letter. The entire text is available on our website.

“After consultation with Natalie Matthews, Senior Environmental Officer for the Ontario Ministry of Environment, Conservation and Parks in Kingston, she confirmed the presence of blue green algae. According to MECP information, the most probable causes are

nutrient loading (specifically phosphorus and nitrogen) and the exacerbating influence of climate change, which makes the lake more susceptible to algal blooms. While we have no direct control over climate change, we can certainly address nutrient loading into the lake.

Implementing a septic system inspection program would represent a major proactive step in mitigating this critical problem. Therefore, we urge the Municipality to prioritize and establish such a program around Charleston Lake and its island properties. Furthermore, the Charleston Lake Association and the Charleston Lake Environmental Association are eager to collaborate actively in the implementation of this vital initiative.”

ANNUAL GENERAL MEETING 2025

SATURDAY, JULY 26
9:30 AM

HOLY TRINITY CHURCH, OAK LEAF ROAD

GUEST SPEAKERS:

Brigitte Simmatis - Blue Green Algae

Nick Sterling - Water Soldier Update

David Philipp - Bass Sanctuary Update

All welcome!

CHARLESTON LAKE ASSOCIATION DIRECTORS

Michael McAdoo - *President*

pres@charlestonlakeassociation.ca

Wayne Gill - *Secretary / Treasurer*

V.P. South - *Bill Hallam*

V.P. North - *Fred Milko*

Robbie Gibson - *Safety and Law Enforcement*

Dwayne Struthers - *Fish and Wildlife*

Sue Willson - *Website and Golf Tournament*

Mary Mansworth - *Newsletter and Youth Programs*

CHARLESTON LAKE ENVIRONMENTAL ASSOCIATION DIRECTORS

Roy Angelow - *Municipal and Government Liaison*

Katie Baker - *Fish and Wildlife*

Ron Evers - *Fish and Wildlife*

Linda Whitmarsh - *Director at Large*

and "Get the Lead Out" program

Clayton Gray - *Director at Large*

Kristin Ireland - *Director at Large, Information Centre*

Mike Ferris - *Director at Large*

SUMMER CAMPS 2025

All our Summer Camps are full.

STUDENT BURSARIES

Each school year, the CLEA awards a post secondary bursary to a graduating student from both Athens District High School (ADHS) and Gananoque Intermediate and Secondary School (GISS). This award is designed for students who are focusing on environmental studies, natural resource management, land use planning or similar programs.

As well, the CLEA has one other award made eligible to students from outside of our local area. This award is set aside for a student who is a family member of a current CLA member in good standing, who may spend quality vacation time visiting Charleston Lake.

The students awarded for the 2023-24 season are as follows:

ADHS – **Emily Irvine**, Diploma of Agriculture, University of Guelph

GISS – **Claire Warren**, Fish and Wildlife Technician Program, Fleming College

CLA Award – **Caleb McManus**, Environmental Studies/Science Program, Trent University (Rideau District High School)

All three awards are meant to recognize and inspire students for their environmental efforts, to encourage our youth to participate in environmental projects and to become leaders in sustainability.

DOUG HALE MEMORIAL GOLF TOURNAMENT

Reserve your calendars for the annual Doug Hale Golf Tournament on Saturday, August 9, 2025 at the Cedar Valley Golf Club. It is a shotgun start at 9:30 a.m. No need to be a great golfer as it is a 4-person scramble. This is a great community event and a significant fundraiser for the Charleston Lake Environmental Association. There will be golf, a silent auction, prizes, lunch and lots of time to chat with friends and neighbours.

The cost is \$65 per person (golf and lunch). So, get your team together and register at: charlestonlakeassociation.ca

CHARLESTON LAKE ASSOCIATION INFORMATION CENTRE

109 County Road 40, Athens, K0E 1B0

Information Centre is open on weekends until the end of June

During July and August, the centre is open from 9:00 am-3:00 pm daily, except Tuesdays and Wednesdays.

Golf shirts and hats are available at the centre, along with environmental products.