

SAAWA Annual Meeting
Wednesday, September 1,
5:30 pm at the Stone House
St. Albans Bay Town Park

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18 years of water quality improvement
2021 Harvest Yields Abundant Weed Growth



Lazy Lady Island Update

Migrating cormorants returned to St. Albans Bay again in the spring this year and continue to be a well-established colony on Lazy Lady Island. Tree damage from their nesting and acidic poop has spread, but the Island doesn't seem beyond repair quite yet. For now, a number of bird species are still present — herons, eagles, crows, ducks, etc.

(article continued p. 5)



The St. Albans Area Watershed Association (SAAWA) began the 18th season of weed harvesting on July 20, 2021. Between July 20th and August 20th the weed harvester worked in the area along Ferrand Road and Bingham Shore Road. The weed concentration was extremely dense and 14 to 15 loads were harvested each day during the first four weeks. During weeks 5 and 6 the number of loads decreased to 7 to 8 loads per day. On August 23 the operation moved to Hathaway Point.

The large weed harvester, an Aquarius Systems EH-420 having a capacity of 420 bushels, has been the

only weed harvester in operation. The smaller Aquamarine H5-200 has not been in use because the tractor drawn trailer is only able to transport one large load at a time; and to off load each load in the time it takes for the large weed harvester to bring in another load. In areas with less abundant weed growth, both machines will be in operation.

Andy Pelletier is the daily supervisor of the operation. This will be his 15th season of operating and maintaining the equipment. Gary Trivento operates the weed harvester. This is Gary's 3rd season on the lake.

(article continued p. 2)

2021 Harvesting Report (continued from p. 1)

The water quality has remained relatively good during this year. The Bay experienced a blue/green algae bloom on Sunday August 8th and another algae bloom on Friday and Saturday, August 20th and 21st. These algae blooms occurred during calm conditions accompanied by high temperatures, and they were dissipated when winds

returned, creating wave action.

Funding continues to be provided by the Town of St. Albans, the City of St. Albans, the Town of Georgia and a grant from the State of Vermont. SAAWA is grateful for the financial support we receive annually and support from our membership.



Harvester works near Hathaway Point shoreline



Cut weeds move up the harvester conveyor



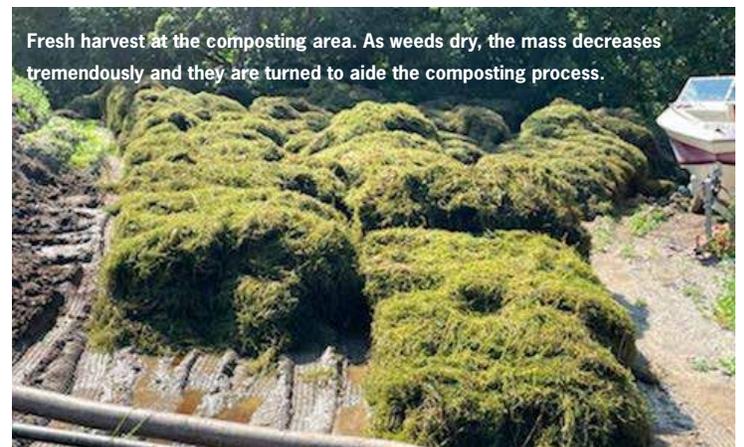
Arriving at the composting area.



Large weed mass being off-loaded to the transport trailer.



Each trailer holds roughly 400 bushels



Fresh harvest at the composting area. As weeds dry, the mass decreases tremendously and they are turned to aide the composting process.



Summer Farmer's Market Membership Drive and Kayak Raffle Winner Announcement

Thanks to everyone who participated in the Summer Membership Drive by joining or renewing their SAAWA membership. We had lots of fun this summer meeting everyone down by the Bay at the Farmer's Market and spreading the message for clean water. It's been uplifting and reinforces our commitment to this community and our efforts at clean water for all! We hope to continue our membership outreach next year when the Market starts again.

We are happy to announce the lucky winners of the kayak raffle: Gary & Diana Ovitt of St. Albans!! Congratulations, Gary & Diana! Hope you have fun on the lake!

To everyone else who participated, we want to thank you sincerely. Together your membership contributions and raffle ticket purchases raised \$1,520 towards our annual budget and weed harvesting operations. We couldn't do the cleanup work without your support, so we hope you stay in touch.

It's not too late to support SAAWA this year — you can still join online or at the Annual Meeting on September 1. SAAWA Members are critical to continuing harvesting efforts in the Bay and supporting efforts for restoring St. Albans Bay.



st. albans area watershed
ASSOCIATION

PO Box 1567, St. Albans, VT 05478

The SAAWA Newsletter is a publication of the Saint Albans Area Watershed Association

Board of Directors

President | Steve Langevin
Vice President | Chris Dussault
Treasurer | Josh Koldys
Secretary | Jeff Moulton

Visit us on the web: SAAWAVT.org

The Board generally meets on the 3rd Wednesday of the month at 5:30 pm. All are welcome!

Email: info@saintalbanswatershed.org for directions or more info.

JOIN US! Demand Clean Water!

Your support is essential and helps SAAWA keep the focus on clean water in St. Albans Bay! Please complete the form below and return to:

St. Albans Area Watershed Association
PO Box 1567, St. Albans, VT 05478

Name _____

Address _____

City/State/Zip _____

Email _____

Phone _____

Shoreline property owner? yes no

Membership Level

\$10 Individual \$20 Family \$25 Family (includes Shirt)
(Individual, Family and Student memberships receive SAAWA newsletter)

\$50 Lake Advocate \$100 Lake Steward \$150 Business Sponsor
(Winslow book on Lake Champlain) (Website Link)

2021



You may become a member
or renew your membership online at
saawavt.org

If you have an interest in becoming a
SAAWA Board Member, please contact Steve Langevin,
SAAWA president: info@saintalbanswatershed.org.

Join us and speak up for clean water!

St. Albans Town Stormwater Utility Begins to Take Shape, Coordinator Hired to Develop New Plans and Projects for Clean Water

On September 20, 2020, St. Albans Town adopted a stormwater utility ordinance to address stormwater management and meet regulatory requirements for TMDL in impaired waterways in the watershed. Both Rugg Brook and Stevens Brook have been identified as impaired due to excessive stormwater runoff and the Town is required to address this. Excessive runoff, worsened by extreme rainfall events, has been a continuous and troublesome contributor to poor water quality in St. Albans Bay. Unchecked, stormwater runoff carries silt, phosphorus and contaminants from streets, lawns, farm fields, rooftops and parking lots into streams that eventually reach Lake Champlain. One of the goals of the Stormwater Utility is to repair these waterways and regulate stormwater runoff which carries phosphorus and sediment down to the Bay.

In April 2020, St. Albans Town named Emmalee Cherington as stormwater coordinator for the Stormwater Utility. She previously worked managing projects as assistant superintendent for South Burlington stormwater utility — the first in the state of Vermont. She has a civil engineering degree from UVM and environmental engineering from Vermont Technical College. According to an interview in the *St. Albans Messenger*, her first task will be to define and prioritize projects as well organize the utility and begin to send out bills to fund the utility. In July, Town property owners received

their first bills of \$50/residential unit with commercial properties billed based on footage of impervious surface (pavement, sidewalks, rooftops, etc.). The Town approved the \$50 rate May 17.

Along with flow restoration projects for Rugg and Stevens Brook, the town is also developing a plan to control the flow of phosphorus as well as other harmful substances into the lake.

In the *Messenger* article, Cherington also discussed looking at other methods to remediate stormwater runoff. These flow restoration projects could involve improved catch basins, improved roads and culverts & storm drains. They may also consider implementing other measures to reduce phosphorus such as aeration systems, floating wetlands which would take up legacy phosphorus, boutique septic systems, among others. The Stormwater Coordinator is also conduct education and outreach

to the community about ways to reduce runoff and work toward cleaner water.

The Town has also contracted a firm to complete an Illicit Discharge Detection & Elimination (IDDE) Study. as required by the Town's Municipal Separate Storm Sewer Systems

(MS4) permit with the State of Vermont. The purpose of the study is to identify and eliminate potential pollution sources within Town drainage systems. The contractor, Watershed Consulting, will investigate stormwater management systems in the field and conduct water quality testing of effluent. They will be traversing streams and tributaries in the Town of St. Albans starting on August 23, 2021. In the case of private property, the Contractor will seek out the property owner, if available, prior to walking the property.

Emmalee Cherington will be SAAWA's guest speaker at the Annual Meeting on Wednesday, September 1 at 5:30 pm. We look forward to hearing how she plans to move forward with the Stormwater Utility projects and what the initial priorities might be, as well as any ways she thinks we might be able to directly remediate water quality in St. Albans Bay.



Rugg Brook Stormwater structure, north of Nason Street.



Rugg Brook culvert under Nason Street



A plume of cloudy water under the bridge above Mill River Falls after a rain.

LCBP 2021 State of the Lake Report Highlights

A Few Takeaways: St. Albans Bay still has a problem...

The Lake Champlain Basin Program has released their 2021 Lake Champlain State of the Lake and Ecosystem Indicators Report. It contains much information on lake water quality including presence of pathogens, cyanobacteria, nutrients, contaminants as well as information on fish and aquatic invasive species found in the Lake. It is well put together and an interesting read. **Download a copy at www.lcbp.org.**

The LCBP collects a number of metrics to assess water health, as well as funding education, outreach and water quality projects. Their report is of interest as it gives us a snapshot of where St. Albans Bay and the north end of the Lake stand with regard to water quality progress (or lack of it). Relevant to our area, in the summary (p. 4), the report states:

“...the Northeast Arm holds about 13% of the Lake’s volume. This relatively deep lake segment is dotted with many islands, bays and shallower areas, creating a favorite area for many boaters and anglers. St. Albans Bay, a large and productive bay, has frequent challenges with cyanobacteria blooms.”

Cyanobacteria thrives when excess nutrients (phosphorus & nitrogen) meet calm water and warm temperatures. Bloom frequency varies but while most of the lake is “generally safe”, St. Albans Bay has been 77% safe. Figure 4 above indicates a greater percentage of cyanobacteria “high alert” status than other lake areas. Blooms greatly impact recreation as well as health. The toxins can be harmful to people and pets and beaches must be closed. The report states our area was “fair” this year for algae blooms, but trending worse. This is bad. SAAWA would like the State of Vermont to address this by exploring blue green algae remediation strategies in the Bay.

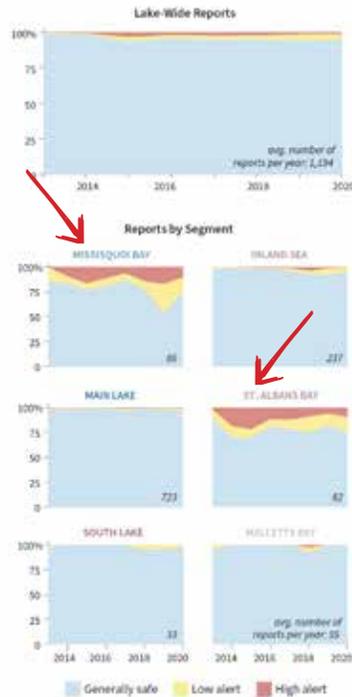
The news on phosphorus is also not great for our area despite best agricultural practices implemented in 2015. (Fig. 6) Our watershed still struggles to manage phosphorus runoff from agricultural and urban sources, exacerbated by stormwater and increased rain events. Many farms have worked hard to reduce phosphorus, but agriculture has simultaneously intensified and progress toward reduced phosphorus concentration has yet to show up in the Bay. Fig. 6 (above right)) shows St. Albans and Missisquoi Bays are well above target levels. From LCBP report p. 13:

“From 1990 to 2020, most segments did not show long-term

trends in phosphorus concentration, though the Northeast Arm showed an increasing trend over this time period.”

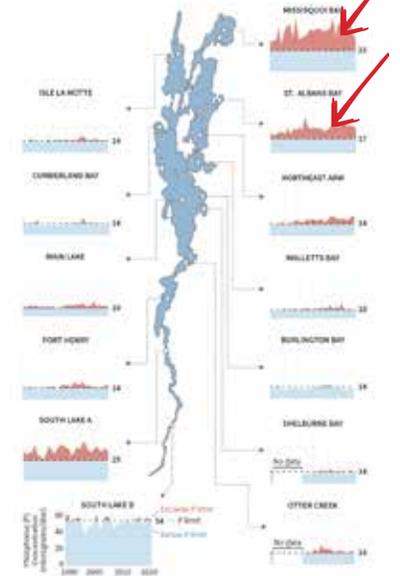
Annual average (phosphorus) concentrations have been near or below targeted limits since 1990 in other areas of the lake but our northern region is another story:

“Phosphorus concentrations above established limits have been observed in the shallow waters of Missisquoi and St. Albans Bays, the South Lake A segment, and also in the deeper Northeast Arm segment. Some of these areas have high phosphorus loads from their contributing sub-watersheds. Also shallow bays are more susceptible to problems associated with excess phosphorus than the deeper bays and Main Lake because there is less water to dilute nutrients. Shallow bays are more affected by “legacy phosphorus” that is released from the bottom sediments into the water column during low-oxygen conditions.”



DATA SOURCE: Lake Champlain Cyanobacteria Monitoring Program (LCBP, LCC, VT ANR, NYSDEC, VTDOH)

Figure 4 | Cyanobacteria monitoring reports on Lake Champlain



NOTE: Data for Isle La Motte includes two stations. DATA SOURCE: Lake Champlain Long-Term Monitoring Program (LCBP, VT ANR, NYSDEC)

Figure 6 | Annual average phosphorus concentration by Lake segment, and also in the deeper Northeast Arm segment.



Lazy Lady Island Update (continued from p. 1)

Concerned about the ongoing destruction, this year SAAWA decided to focus our attention on the Island’s plight, first trying to reach out to the original owners of the island, then a new heir and finally successfully connecting with the subsequent heirs. We felt, as they were not local, that it was important that they know about the deteriorating situation and the environmental danger to their property. SAAWA facilitated a tour of the island for a family representative with VT Fish and Wildlife and they now have a good understanding of the conditions on the Island. Our most recent contact from them stated that they are eager to remove Lazy Lady as a source of problems for the watershed and exploring ways to resolve the cormorant problem with the Division of Wildlife. SAAWA is hopeful that we might begin to see some progress this year or next and we are very grateful for the family’s concern.

News/Updates

Monitoring Blue Green Algae

One of the many ways to help water quality is by providing information “on the ground” to local and state organizations. Since 2003, the Lake Champlain Committee (LCC) has trained citizen cyanobacteria monitors. Along with staff from the Vermont departments of Health and Environmental Conservation, volunteers file weekly online reports that are displayed on the Cyanobacteria Tracker Map.



SAAWA President, Steve Langevin, with a very green sample of water during an August algae bloom.

As a program volunteer, SAAWA president Steve Langevin makes weekly visual checks at the boat landing and two other points on Hathaway Point to report presence of algae blooms and provide samples if needed.

The tracking program helps citizens, along with health, environmental and recreational officials, assess the safety of our beaches. It also provides important data to help further understand when and why blooms occur

Results from all citizen monitors can be found on the [Vermont Cyanobacteria Tracker map](#). If you would like to help with this project, please email SAAWA at info@saintalbanswatershed.org.



Water Around the Bay

With the exception of a couple severe but fairly short blooms in August, St. Albans Bay experienced less cyanobacteria and fairly good water conditions this year. Weed growth was heavier than last year. Oddly, early algae problems plagued Maquam Shore this year and they have struggled with weeds collecting on shore which has been unusual in the past. Another unusual event was a huge influx of weeds that blew ashore on the West Shore of Hathaway Point in August during high winds. Shore residents teamed up and worked quickly to remove the weeds so they did not have a chance to decompose into the Lake and on the beach.



State of the Lake 2021

Lake Champlain Basin Program has published the 2021 State of the Lake report. While news for many areas around the lake shows phosphorus concentration is holding at or only slightly above target levels, St. Albans Bay and Mississquoi Bay, shallower bodies of water, are still well beyond target. Please see a summary of notable LCBP findings on p. 5



Well done, St. Albans Town!

Meanwhile, at the Bay Park, St. Albans Town has done another fantastic job keeping the beach raked and clean this year. The positive results can be seen in the increase of swimmers, picnics and visitors to the Park, as well as decreased odor of decomposing vegetation on shore. We believe these efforts go a long way toward keeping excess nutrients out of the water and definitely makes the Bay Park a wonderful recreational asset for the area. Maintenance of the Park grounds has been fabulous as well.

Well done, St. Albans Town!



Restore the Bay 5K 2022?

SAAWA's Restore the Bay 5K has been missing the past two years, mainly due to Covid concerns and our usual volunteers being stretched too thin. We are really hoping to bring back the 5K next Spring, depending on our ability to create a safe and fun event.

If you would like to see the race back on the calendar and want to help with planning or volunteering at the event, please give us a call! Availability of volunteers will be a major factor in whether we can once again pull off this fun and family friendly event down at the Bay! Please email hello@saintalbanswatershed.org if you would like to talk about the different ways you can help.



Some Good Cyanotoxin News?

According to the LCBP 2021 *State of the Lake Report*, a recent study found no cyanotoxins in Lake Champlain fish tissue. Cyanotoxins are suspected of harmful effects of human and animal health, so this is good news. The study, by RPI Darrin Fresh Water Institute, collected Lake Champlain fish during low- and high-severity cyanobacteria blooms and analyzed fish tissues for three types of cyanotoxins: microcystin, anatoxin-a, and cylindrospermopsin. None of these cyanotoxins were detected among the 5 species and 153 specimens sampled, suggesting that these cyanotoxins did not accumulate in fish tissue in Lake Champlain.

There is ongoing work to determine the



potential impact of cyanobacteria blooms and associated cyanotoxins on water quality and public health.

The University of Vermont is also conducting research on cyanobacteria on several fronts with projects that will use drones to determine the extent of cyanobacteria blooms and satellite images to study the distribution and severity of cyanobacteria blooms across Lake Champlain. SAAWA partnered with UVM to collect fish, air & water samples for analysis of cytotoxins. Fish samples were collected by SAAWA during the summer of 2019 but results of that study are still pending and we have not been able to get a final report.

Jump In! Please Make This Your Year to Get Involved!

We need your support to continue harvesting, to raise water quality issues and explore new projects such as Black Creek Swamp and Mill River restoration. Your membership keeps SAAWA going. You can also attend a **Board meeting and join us!** Meetings are generally on the 2nd or 3rd Wednesday of the month. Email info@saintalbanswatershed.org for info.

You can help in many other ways. Talk with neighbors, family and friends and ask them to join us! Volunteering is a way to learn more about lake issues and contribute to real change. You can also:

- join the SAAWA Board
- help research water issues or write articles for newsletter & social media posts
- attend public meetings or contact public officials
- help organize the 5K & other events

SAAWA is an all-volunteer association. We pride ourselves on a cost effective operation but we need you! Please make this the year that you step up and lend a hand if you are able. If not, renewing your membership helps keep our efforts going and strengthens our voice for clean water.

UVM Filmmaker/Paddler Calls Attention to Lake Champlain

On a hot, still August day, after paddling the length of Lake Champlain from south to north, UVM student Jordan Rowell paddled into Missisquoi Bay and a sight many of us have seen on St. Albans Bay when conditions are right. According to his team's Instagram post (@lakechamplainfilm):

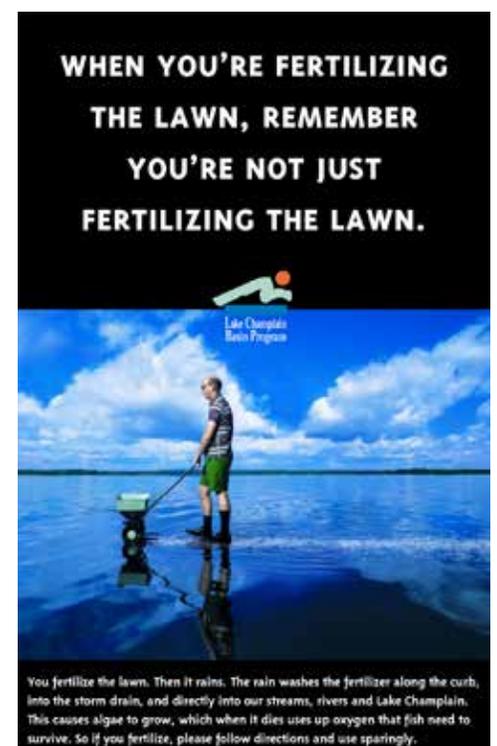
After nearly two weeks of paddling on the lake and talking with people about its challenges, we thought we understood what was at stake, but nothing could have prepared us for what we found in Missisquoi Bay. On Friday, August 20th, Jordan arrived at the edge of what locals told us was the worst blue-green algae bloom they had ever seen. Stretching from one end of the bay to the other, this massive growth of toxic cyanobacteria resembles thick green pea soup mixed with spilled blue paint. This was a powerful experience that we will be reflecting on for the weeks and months to come.

You can read more about Jordan's paddle and upcoming film at lakechamplainfilm.com.



'Restore the Bay' Tees on SALE!

We still have a few bright yellow performance tees left, mostly in adult small, medium, and kids sizes. \$10 cost of the shirt includes a 2021 membership in SAAWA. Email kate@saintalbanswatershed.org or phone 802.527.7572 if you would like one.





PO Box 1567
St. Albans, VT 05478

www.saawvt.org

working to restore Saint Albans Bay