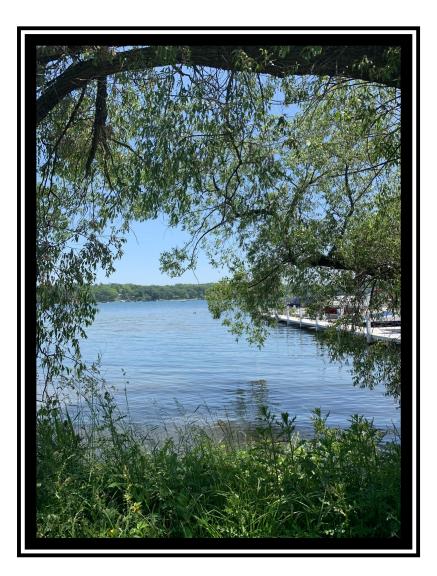


Spring / Summer 2024 Volume 38, No. 1

# Geneva Lake Environmental Agency

**Our Mission:** 

The Geneva Lake Environmental Agency is determined to maintain Geneva Lake's resources by protecting, preserving and enhancing a desirable lake and watershed quality.



### **New Office Space**

The year 2024 has marked significant changes for the Geneva Lake Environmental Agency, as we relocated our office from George Williams College of Aurora University due to the sale of the property by Aurora University. Our new office now resides at a central location in downtown Williams Bay, specifically at 105 N Elkhorn Rd, formerly occupied by Cashmere Cape. Notably, our new location is a shared building with the popular Dip In The Bay Ice Cream Shop. We're thrilled about this move, especially as we're actively developing and planning an educational speaker series.





We had a ribbon cutting and dedication ceremony at our office April 18,2024 to celebrate this exciting new chapter for the Agency. Thank you to Visit Lake Geneva for helping to coordinate this special event.

### **College Intern Bio**

Hello! My name is Henry Huss, and I am excited to be working for the Geneva Lake Environmental Agency this summer as their Lake Manager Intern. I grew up in the Village of Fontana and spent much of my life at the lake. I recently graduated from U.W. Madison with a Bachelor of Science Degree in Biology and Environmental Science. Some things I love to do are snorkeling, boating, water sports, visiting the ocean, and spending time with loved ones. I am thrilled to be a part of this agency to help protect and preserve the lake so future generations can make memories here just as we do today. This year I will be conducting municipal beach water testing, clean boats clean waters education, nearshore fisheries survey, and beginning the safe wake campaign to retain the enjoyment the lake provides through recreation while preserving the environment. If you see me around, please say hello and ask what I am working on to preserve the lake. I'll be delighted to meet you!



Henry Huss

## <u>Intern Bios</u>

We are thrilled to announce that we have four Badger Highschool Students who will be interning with the agency.

Hello, I'm Riley Hartnell, a recent graduate of Badger High School with a strong passion for wildlife biology. This fall, I will begin my academic journey at UW Green Bay to further pursue this career path. Currently, I am participating in an Animal Science Internship class, which has granted me the opportunity to intern at GLEA. Conservation is a cause close to my heart, and I am committed to protecting vulnerable species in our lake from both human impacts and invasive species. Outside of academics, I lead a non-profit cleanup organization dedicated to removing trash from our lake and rivers, contributing to the well-being of our local ecosystems. Joining the GLEA team is highly exciting for me as I look forward to making a positive impact in my community. Specifically, I aim to address the invasive species crisis threatening our lakes and educate the community about the impact of our actions on the lake's health. I am enthusiastic about being part of a collective effort to drive positive change for our environment.



Riley Hartnell



Emma Olson

Hello, I'm Emma Olson, a recent graduate of Badger High School. This spring, I started an internship at the Geneva Lake Environmental Agency as part of my environmental internship class. I'm excited to focus on the study of invasive plant species in Geneva Lake and support endeavors like the nearshore fish survey and Starry Stonewort management, in addition to aiding in water testing. As the president of the Badger FFA chapter, a position I've held since my freshman year, I've developed a strong passion for environmental science and horticulture. My involvement in FFA has shaped my decision to pursue a major in Horticulture with a minor in Environmental Science at the University of Wisconsin River Falls starting this fall. I am enthusiastic about joining the GLEA team and eager to contribute to environmental conservation effort



Meghan Rudd

Hello, my name is Meghan Rudd, and I am excited to be interning with the Geneva Lake Environmental Agency this summer! I live in the Village of Fontana and in the fall, I will be a senior at Badger High School. In my free time I enjoy skiing, hiking the lake shore path, and hanging out with friends. After High School I hope to earn a four-year degree studying in the field of Environmental Science. I am grateful to have been given this opportunity to work at GLEA because it will expand my knowledge to spread awareness for conserving the lake for future generations. Through this internship, I hope to gain deeper knowledge of how interactions within the changing environment affect the lake's ecosystem and the public.

### **Intern Bios**

Hello, my name is Moira Gerard and I'm an Intern at GLEA this summer. I currently go to badger high school and will be a senior this year. My favorite activities are rowing, art, theater, and photography. I plan to attend Michigan Tech in the UP of Michigan to major in Ecology and Evolutionary Biology. I am so grateful for the opportunity to work at GLEA as an intern after shadowing an intern from last summer with the water testing and zebra mussel survey. I plan to work on a couple projects including looking at some of the local macroinvertebrates. If you see me, feel free to say hello or ask questions about what I am doing!



Moria Gerard

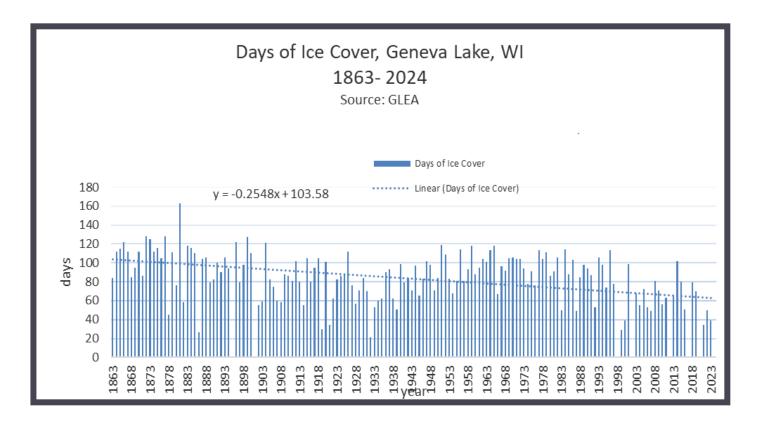
### Annual Ice on Contest and Ice Coverage Data

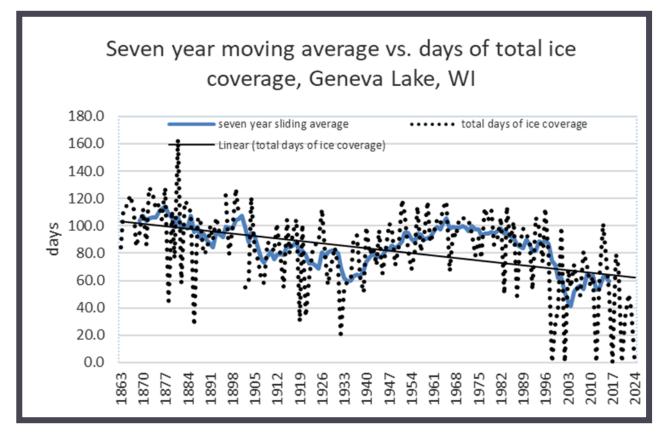
This year, the Geneva Lake Environmental Agency hosted the Annual Ice On Contest, inviting K-8 students from the local area to submit their predictions for the date when the lake would freeze over or, conversely, when it wouldn't freeze. this year we had 168 entries from 14 local area schools. This year, we recognized a record number of participants, with 15 students submitting guesses that Geneva Lake would not freeze over. 2024 marks only the 6th occurrence of the lake not freezing over, following previous instances were in 1997-1998, 2001-2002, 2012, 2017, and 2020. Our ice data dates to 1863. The average days of ice coverage for Geneva Lake now stand at just 34 days.





# Ice Data Graphs





What is so important about the ice coverage? Why does it matter if Geneva Lake freezes?

**Temperature Regulation:** Ice acts as a natural insulator, helping to regulate the temperature of the water beneath it. During winter, ice cover prevents rapid heat loss from the lake to the colder atmosphere, helping to maintain relatively stable water temperatures. This is crucial for aquatic organisms' survival, as extreme temperature fluctuations can cause stress which often leads to these species dying.

**Habitat Protection:** Ice cover provides a protective layer over shallow areas, protecting aquatic habitats and organisms from harsh weather conditions. It also helps to maintain oxygen levels in the water by preventing wind-driven mixing, which can lead to oxygen depletion in deeper parts of the lake.

**Nutrient Cycling:** Ice cover slows the exchange of gases between the atmosphere and the water, as well as the mixing of water layers. This can affect nutrient cycling processes, such as releasing phosphorus and nitrogen from sediments, which are responsible for aquatic plants and algae growth.

**Erosion Control:** Ice cover can help to prevent shoreline erosion by reducing the impact of wave action during winter storms. This is particularly important for lakes with fragile shorelines or areas prone to erosion.

**Recreation and Economic Activities:** In Southeastern Wisconsin where lakes freeze over during winter, ice provides recreational activities such as ice fishing, ice skating, ice boating, and snowmobiling. These activities benefit our local communities economically through tourism.

Overall, ice covers play a vital role in maintaining the ecological balance and health of Geneva Lake and other freshwater lakes, influencing various physical, chemical, and biological processes.



#### **Summer Projects**



This summer, the Geneva Lake Environmental Agency is commencing an expansive project to assess the effects of Wake Enhancement devices on Geneva Lake's overall health. To achieve this, we will collaborate with numerous contractors to perform thorough surveys of the Aquatic Plant Community, Nearshore Fisheries, and Macroinvertebrate populations throughout the entire lake. We are especially excited about our partnership with the Fontana Jt8 School district to involve students in these surveys, providing them with valuable hands-on learning experiences.

For enhanced data collection, we will utilize various technologies to capture realtime video and photographic evidence of these impacts. However, to fully implement these plans, the agency urgently needs a suitable boat. Financial constraints prevent us from affording full rental prices for transporting students to the diverse survey sites. Though we have utilized a barge for many surveying tasks in the past,

this mode of transportation is unsuitable and unsafe for student involvement. Procuring a boat would not only streamline our operations but also ensure greater accessibility for student participation, advancing both our research goals and educational outreach endeavors.

### Local Chapter 30 AIS Police Department Training and Cost-sharing Clean Boats Clean Waters



All municipalities have unanimously agreed to participate in the cost-sharing of the Clean Boats Clean Waters program with the GLEA. Additionally, they have each adopted a local Aquatic Invasive Species (AIS) ordinance, empowering local police departments to issue AIS tickets and enabling their respective municipal judges to adjudicate these cases through their own court systems. This collaborative effort signifies a significant step forward in combating the spread of AIS within our communities and underscores the collective commitment to preserving the health and integrity of our waterways.



The GLEA hosted an informational meeting with DNR about Geneva Fisheries and Fishing Tournament Regulations. The recording of this meeting can be found on our website or by scanning the QR code ,Passcode: EE3^S3!=





The Geneva Lake Environmental Agency extends our heartfelt gratitude to the Geneva Lake Association, the Lake Geneva Garden Club, and the Environmental Education Foundation for their invaluable support. Their generous grants have allowed us to further our mission of preserving and protecting the pristine beauty of Geneva Lake's aquatic ecosystem.

We are deeply appreciative of their commitment to environmental conservation and their contribution to our vital work.

Thank you for making a difference!

# Say NO to Phosphorus Fertilizer –Save Geneva Lake



Phosphorus is the most problematic pollutant in the lake. Most lawns in our area don't need phosphorus. When lawn fertilizers run off into the Geneva Basin, they feed the unsightly, smelly and potentially toxic algal bloom and promote the growth of weeds in the lake.

## USE OF PHOSPHORUS FERTILIZERS IN THE GENEVA LAKE SHORELINE AREAS IS REGULATED.

# **CHECK OUT OUR ONLINE SHOP**



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> Feel free to share your Geneva Waters with others. Please recycle your newsletters when you are done enjoying them!



Scan here to be taken to our website for online credit card donations.



#### Geneva Lake Environmental Agency Contribution Form

YES, I want to help Geneva Lake Environmental Agency in their efforts to protect and preserve Geneva Lake for generations to come.

Enclosed is my tax deductible contribution for 2024.

All contributors will receive a one year subscription to Geneva Waters.

\* We welcome donations through our website at https://www.gleawi.org/donate \*

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Want to save paper? Check here if you prefer to receive email rather than printed newsletters.

Mail this form with your contribution to: GLEA Contributions PO BOX 914 Williams Bay, WI 53191



If you are interested in receiving a copy of any of the following publications, CHECK the title below.

_	Sediments & Lake History	_	Groundwater Flow Model
_	Geneva Lake Use Report		for Geneva Lake
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	Plants		Compilation for Geneva
	Geneva Lake's Water		Area
-	Quality	_	Groundwater Pumping
	Geneva Lake's Budget		Near Geneva Lake
-	8	_	Swimmer's Itch
_	Geneva Lake & Boating		Big Foot Creek Watershed
_	Geneva Lake Management	-	Study Phase 1, 2020
	Plan		5
	Groundwater & Geneva	_	Clean Boats Clean Waters
-	Lake		Report 2020
	Lanc		

Geneva Lake Book – Spongy Moth Info. 2022

Donations to the Geneva Lake Environmental Agency are tax-exempt under section 170©(1) of the Internal Revenue Service code.



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### <u>Staff</u>

Jacob Schmidt, Executive Director Aimee Townsend, Admin. Assistant Henry Huss, Lake Manager Intern Tyler Jochman, GLEA Attorney

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Preserving Geneva Lake for generations to come.