





# GENEVA WATERS

Fall 2026 Newsletter

## LETTER FROM THE DIRECTOR




**What a summer it was at GLEA!** Along with our regular water-quality monitoring, beach testing, aquatic invasive species work, and other ongoing programs, we took on more projects and activities than ever before. Even our returning interns commented that they had never been so busy! I am incredibly grateful for the four college-age interns who worked alongside us this summer. They jumped into everything we asked of them, worked hard, learned along the way, and helped us accomplish an extraordinary amount. From monitoring streams and beaches to installing aquatic invasive species prevention (AIS) signage, working with students at Holiday Home Camp, and assisting with new research and field projects, their energy and willingness to get things done made an incredibly busy summer possible. You'll see many of those projects highlighted throughout this newsletter.

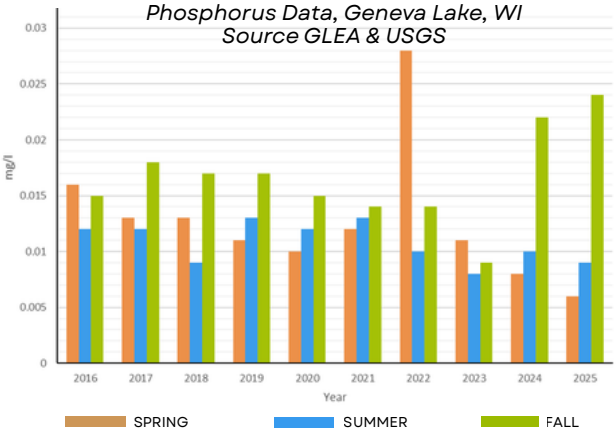
As summer gives way to fall, our work is certainly not slowing down. In fact, GLEA is beginning to take on projects to help the future of Geneva Lake. The recently completed Lake Management Plan identified reducing phosphorus entering Geneva Lake as our number-one water-quality priority. That recommendation is helping move us beyond simply monitoring and documenting what is happening in the lake toward working with our partners on projects that can address some of the problems we have identified.

This fall, GLEA, the Geneva Lake Association, and the Geneva Lake Conservancy are working with Walworth County to begin advancing nine priority projects designed to reduce phosphorus entering Geneva Lake. These projects will take time. Some will move forward this fall while others will develop over the next several years, but together they represent an important investment in the long-term health of the lake and its watershed. I'll share more about this effort and why phosphorus reduction matters in the pages ahead. After such a productive summer, I am excited about where this next phase of our work can take us and grateful for the municipalities, organizations, partners, and community members who continue to make it possible. *~Holly*

# *From Planning* TO ACTION
# Phosphorus Reduction Projects

## Phosphorus Spotlight

The 2025 Geneva Lake Management Plan, prepared by Southeastern Wisconsin Regional Planning Commission (SEWRPC), estimates that approximately 6,125 pounds of phosphorus is delivered to Geneva Lake each year. Of that amount, 95% comes from watershed land uses (*see below). The chart to the right shows phosphorus measurements from the lake over the past 10 years. While Geneva Lake remains a remarkable resource, these findings serve as an early warning. Taking action today to reduce phosphorus entering the lake will help preserve water quality, recreation, habitat, and property values for future generations.




## *Watershed Land Use - Phosphorus Input

- **37.6%** — Row crop agriculture.
- **24.9%** — Air and rain: dust, soil, pollen, other airborne particles.
- **9.2%** — Urban land use.
- **15.9%** — Other land uses.

## 9 PRIORITY WATERSHED PROJECTS ALREADY IDENTIFIED




## Completing these projects will lead to:

- CLEANER WATER
- REDUCED PHOSPHORUS
- IMPROVED HABITAT
- REDUCED EROSION
- PROTECTED SHORELINE

# Phosphorus Reduction Projects Con't...

When it rains, everything upstream flows downstream. Streams carry soil, phosphorus, bacteria, and sediment while eroding streambanks and depositing all of it in the lake.

GLEA is working with the Walworth County Land Use and Resource Management Department (LURM) and the DNR to act on identified priority projects throughout the watershed.

These projects will reduce runoff, stabilize erosion, improve water quality, and protect Geneva Lake and its watershed.


Streambank erosion example

## We Need Your Help

If the lake organizations can secure the required matching funds, Walworth County Land Use & Resource Management has identified a couple of these projects could begin as early as ***fall 2026*** and be completed over the next several years. The total cost of these projects is approximately $410,000, therefore we need $205,000 in matching support. These nine projects are Phase One of phosphorus reduction around Geneva Lake.

## FINDING THE SOURCE

Water-quality monitoring often begins with a number, but the real work starts with figuring out why that number is high. This summer, GLEA expanded targeted monitoring in areas of the Geneva Lake watershed where routine sampling identified concerns with E. coli, phosphorus, and other water-quality conditions.



To help pinpoint what is entering the water, where it is coming from, and why, our investigative monitoring has included:

- Sampling upstream and downstream to narrow down where problems may be entering a stream or channel
- Comparing wet, and dry, weather conditions to better understand the role of runoff
- Testing multiple locations within streams and channels to identify areas with elevated results
- Using specialized testing to help distinguish among possible E. coli sources
- Monitoring aquatic plants and habitat conditions to better understand what is happening within the larger ecosystem



Some problems provide fairly clear clues; others remain much more of a mystery. Either way, identifying the source is an essential step toward finding the right solution. Whether the concern ultimately points to runoff, erosion, wildlife, human activity, wastewater, nutrients, or a combination of factors, GLEA's goal is to move beyond knowing that a problem exists to understanding it well enough to help address it. The better we understand what is happening throughout the watershed, the better equipped we are to protect the water that ultimately reaches Geneva Lake.



# Looking Beneath the Surface

## *Nearshore Life in Geneva Lake*









This summer, GLEA continued surveying two important parts of Geneva Lake's nearshore ecosystem: young fish and macroinvertebrates. Together, these surveys give us a closer look at the life using our shallow-water habitats and help us understand how those communities may be changing.

We found a slightly lower number of both than last year, but overall we recorded the same variety of fish and macroinvertebrates as other years. While that is encouraging, the greatest value comes from repeating these surveys over time. Each year adds another piece to the picture, helping us identify changes in species, habitat, and the effects of invasive species that may not be obvious from the surface.

What happens near the shoreline can tell us a great deal about the health of the entire lake. By tracking these communities year after year, GLEA can recognize ecological changes earlier and use what we learn to help protect and restore the habitat Geneva Lake's native species depend on.

**WHAT WE FOUND**

- 🐟 Young fish using shallow-water habitat
- 🦞 Crayfish and aquatic insects along the lake bottom
- 🐌 Snails and other macroinvertebrates throughout survey areas
- 🌿 Fish and small creatures using aquatic plants for habitat

*Healthy nearshore habitat supports life throughout Geneva Lake.*

### What Are Macroinverbrates?
### Small creatures. Big clues.



Macroinvertebrates are animals without backbones that are large enough to see without a microscope. Aquatic insects, snails, crayfish and other small creatures living in and around the lake bottom can tell us a lot about water quality and habitat conditions.

### Why Survey Young Fish?
### Who's Using the Shallows?



Geneva Lake's nearshore areas provide important habitat for young fish to feed, hide and grow. Tracking which species we find, and how their numbers change over time, helps us understand whether these important habitats are supporting a healthy fish community.

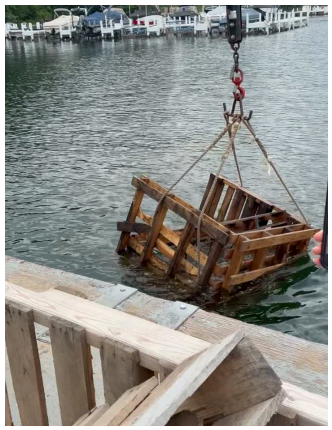
### One Survey is a Snapshot.
### Years of Surveys Tell a Story.

Repeating these surveys allows GLEA to look for changes that may be difficult to see from the surface, including:

- Species becoming more or less common
- Changes in young fish populations
- Loss of sensitive organisms
- Effects of invasive species
- Changes in nearshore habitat

# Fish Cribs Are Working!

This summer, GLEA added five new fish cribs to Geneva Lake and continued diving previously installed cribs to see how they are being used.





## THE RESULTS? LOTS OF FISH!

Surveys found large numbers of fish gathering in and around the cribs. These structures provide young and smaller fish with places to hide, feed, and find protection from predators, especially where natural habitat is limited.

# CLEAN BOATS. CLEAN WATERS.

## A Busy Summer at the Launches!

Clean Drain Dry








- All required CBCW inspection hours completed.
- Hundreds of hours educating boaters.
- New AIS signs, invasive buoys & removal stations installed.

With support from Wisconsin DNR and SEWISC grants, GLEA expanded AIS (aquatic invasive species) prevention around Geneva Lake while launch inspectors continued sharing the Clean, Drain, Dry message. These efforts help reduce the movement of Zebra and Quagga mussels, Starry Stonewort, and other invasive species between lakes and within Geneva Lake itself.

# E. COLI SIGNAGE UPDATE

COMING MAY 2027

Our new E. coli sign boxes experienced some issues in production that prevented installation this summer. GLEA is working with the manufacturer to resolve those concerns, with plans to have the updated bilingual beach signage systems installed and ready for the start of monitoring in May.




**WHY IT MATTERS:** Clear, easy-to-understand signs help swimmers quickly recognize current water conditions and make informed decisions before entering the lake.

# GOING DEEPER

## Tracking Quagga Mussels

GLEA conducts annual invasive mussel surveys around Geneva Lake to track changes in Zebra and Quagga mussel populations. This year, we expanded that work into deeper water to get a better picture of where Quagga mussels are establishing, how their distribution may be changing, and what may be happening beyond the areas reached through our traditional monitoring.

**We surveyed several locations around the lake, approximately 30-70 feet deep and covering 100–300-foot stretches at each site.**







### WHY GO DEEPER?

Quagga mussels can live in deeper, colder water and softer sediments. Using an underwater drone, GLEA explored deeper areas to better understand where quagga mussels are living and how they are spreading throughout Geneva Lake.

### WHY IT MATTERS

Quagga mussels are powerful filter feeders that can change how nutrients move through the lake. Tracking their spread helps GLEA understand potential impacts on water clarity, plankton, aquatic plants, native mussels, and fish habitat.

### THE BIG PICTURE

One survey won't answer every question. But combining our annual monitoring with targeted deeper-water surveys, we can build a more complete picture of the lake's changing mussel community and better understand what those changes may mean .



## Volunteer Day

*Volunteers joined GLEA for our final Zebra & Quagga mussel nearshore samplers survey of the season, helping inspect the samplers, document what we found, and pull them from the lake for the year.*

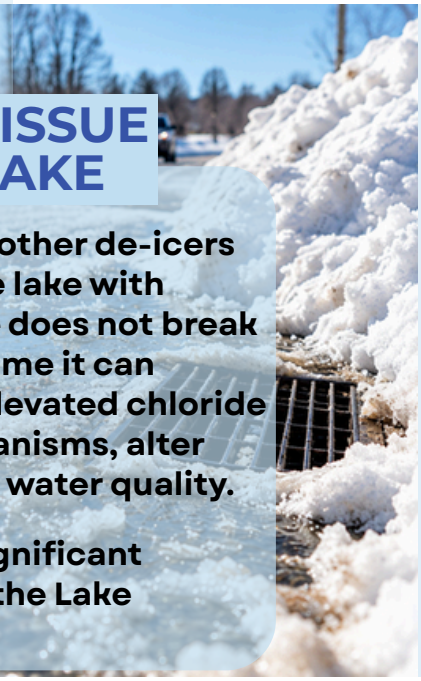
# SHARING LAKE SCIENCE WITH HOLIDAY HOME CAMP



This summer, GLEA partnered with Holiday Home Camp to bring hands-on freshwater science to children who may not otherwise have opportunities to experience lake-based environmental education. Campers got their feet wet, literally, while exploring Geneva Lake, testing water, using Aquaviewers to look beneath the surface, and learning about the plants and animals that call the lake home. These experiences allowed kids to see, touch, explore, and ask questions, turning science into something real and memorable while building an early connection to freshwater stewardship. This program was made possible with support from the Environmental Education Foundation (EEF) and The Natural Resources Foundation, whose funding helped GLEA provide the staff and resources needed to bring these experiences directly to the campers.

# CHLORIDE:

## ANOTHER MAJOR ISSUE FACING GENEVA LAKE



**Chloride from road salt and other de-icers washes into streams and the lake with snowmelt and rain. Chloride does not break down or go away, and over time it can accumulate in freshwater. Elevated chloride levels can harm aquatic organisms, alter lake ecosystems, and affect water quality.**

**Chloride is identified as a significant concern for Geneva Lake in the Lake Management Plan.**

## YOU CAN HELP REDUCE CHLORIDE:

- **Shovel early,** so less salt is needed.
- **Use only the amount necessary,** more isn't better.
- **Sweep up and reuse** excess salt.
- **Consider alternatives,** like brine.
- **Ask your snow removal contractor** about salt-reduction practices.

## SUPPORT GENEVA LAKE

Help GLEA protect and preserve Geneva Lake for generations to come.

*Enclosed is my tax-deductible contribution for 2026.*

**Donate online:**
**www.gleawi.org/donate**

**Or mail to:**
GLEA, PO Box 914
Williams Bay, WI 53191

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**SUPPORT IS FOR (as needed, wish list item, etc.):** _____

**Geneva Lake Environmental Agency**
*V*illage of Fontana - Town of Linn - City of Lake Geneva
Town of Walworth - Village of Williams Bay

PO Box 914
Williams Bay, WI 53191

# GLEA FALL 2026 NEWS







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