



CRYSTAL WHITECAPS

The Newsletter of the Crystal Lake & Watershed Association

Protecting Crystal Lake Now for Generations to Come.

Vol. 21, No. 1

Spring 2026

PRESIDENT'S MESSAGE

Thanks to the steadfast support of the members of the Crystal Lake Watershed Association, we are pleased to announce the successful resolution of our recent lawsuit regarding the Sunkissed Hills project. Without this support, we would not be able to continue our 501(c)3 mission to protect the waters of Crystal Lake. In future, it is our hope that this legal resolution will encourage the consideration of the vital needs of the waters of Crystal Lake in all future land development, thus further fulfilling our mission to protect this treasured resource "for generations to come."

Here are some of the positive outcomes for the waters of Crystal Lake:

All parties are committed to protecting the wetlands and controlling potential

erosion. The new riparian owners of the homes in this development are already installing erosion control measures.

In addition, these new homeowners are committed to keeping the natural shoreline vegetation, which further protects the existing wetlands south of the Betsie Valley Trail that runs between their properties and Crystal Lake.

Benzonia Township has enacted positive changes regarding water quality and environmental protections by hiring knowledgeable, experienced officers for both Zoning Administrator and Zoning Enforcement, and has committed to improving transparency by implementing a modernized website as a trusted interface with the broader community.

The broader community has become more actively engaged in local efforts to protect the waters and surrounding hillsides of Crystal Lake, which are home to a wide range of fish and fowl populations (did you know we have at least four known Bald Eagle nests in the hillsides surrounding the lake?) and are important components of the local ecosystem.

With the Crystal Lake community's continued support, we all have a hand in ensuring that this beautiful gem continues to be a destination for the families and visitors who appreciate its beauty.

Thank you!

Sue Brown, CLWA President

PRESS RELEASE

The parties to the Crystal Lake & Watershed Association ("CLWA") and Sunkissed Hills, LLC ("Sunkissed Hills") lawsuit have settled the matter. The agreement underscores a shared commitment to practical, expert-informed environmental stewardship that complements existing residential uses and enhances the area's natural viewshed. CLWA acknowledges and appreciates Terra Innovations in particular for its role in taking measures to protect the natural environment within the Crystal Lake Watershed Overlay District.

CLWA filed its lawsuit in November 2024. Since that time, the circumstances and the parties' understanding of the facts have evolved, and discovery and pre-trial investigation have confirmed that, throughout the development process, Terra Innovations worked in coordination with applicable local, county, and state regulatory authorities for requirements applicable to the project and complied with everything that those regulatory bodies asked them to do. The parties have reached the following agreed conclusions:

Terra Innovations intentionally sited the residences as far away from the wetlands on the property as possible. Additionally, Terra Innovations has preserved the wetlands and vegetative buffer between the Betsie Valley Trail and the shoreline, recognizing that these natural features further protect water quality. The septic systems as installed by Terra Innovations are and have been compliant with county health department regulations. There is a currently approved and implemented soil erosion plan on the property. Early erosion protection measures put in place by Terra Innovations have proven effective at controlling erosion. The stormwater system that was installed by Terra Innovations is compliant with applicable local, county, and state regulations. Recent major rainstorms indicate that these measures have been effective at controlling runoff. Similarly, Terra Innovations' wetland protection further filters runoff and protects the water quality of Crystal Lake. Recent water quality results demonstrate that the water quality of Crystal Lake has not been impacted because of the Sunkissed development. From

the start of the project, Terra Innovations has committed to planting and protecting the north-facing slope behind the residences, which will provide a canopy to further contain runoff from future extreme weather events.

The homeowners and HOA, as parties now responsible for the wetlands, have proactively applied for EGLE permits to further protect the wetlands on the property. The homeowners have also collectively committed to protecting the wetlands on their own properties, installing their own soil erosion control measures, and obtaining necessary permits for boardwalks and other regulated activities through wetlands on their properties.

CLWA expresses its thanks and appreciation to Sunkissed Hills, Terra Innovations, and Mr. Billy Becker, president of Terra Innovations, for their responsible leadership and investment in the region. Since 2008, Terra Innovations has focused on sustainable land development that integrates ecological design, infrastructure innovation, and long-term community value within the Crystal Lake region.



“WHAT I’VE LEARNED FROM RIPARIAN SITE VISITS”

As Crystal Lake’s biologist, one of the most rewarding parts of my job is visiting riparian property owners and discussing what they are observing along their shoreline. Since I started in 2023 I have responded to numerous questions and requests for site visits from CLWA members. Not only am I happy to help folks who are concerned about Crystal Lake, but hearing the concerns from riparians helps me better understand what is happening in the watershed. Going into the summer season I want to look back at some of the most common questions I have gotten over the years.

While each site visit is unique, three topics or questions come up most often: shoreline changes and erosion, new plants or algae growing in the lake, and what are the best practices for keeping Crystal Lake healthy.

Over the last year or more shoreline erosion has been the number one concern around Crystal Lake. High water and winds have had a big impact on the shoreline. Most of Crystal Lake’s shoreline is considered

“high energy.” This means that when the wind is blowing across the lake the wave action can move sand and cause erosion along the shoreline.

Shorelines hardened by riprap and seawalls, combined with sandy beaches, can exacerbate the problem. The hardened shoreline deflects the wave energy into the softer shoreline areas scouring the shore, often exposing the root systems of the nearby trees or plants. Rock jetties or groins add to the problem, as they concentrate the wave energy at the shoreline and stop the natural movement of sand along the beach. Although the sand might build up on the windward side of a jetty, the leeward side is starved of new sand creating the classic “U” shaped shoreline.

Each site is different but in general the best advice is to maintain as gentle a slope as possible into the water to slow down the waves as they reach shore. Keep or plant deep rooted native plants, shrubs, and trees to hold the soil in place. Michigan’s Department of

Environment, Great Lakes, and Energy (EGLE) has some great resources on shoreline protection and is the agency to go to for any shoreline project permits.

<https://www.michigan.gov/egle/about/organization/water-resources/inland-lakes-and-streams/shoreline-protection>

Another frequent question is, “What is this new plant or algae?” or sometimes “what is this fish or animal?” To be honest these are my favorite questions. The short answer is that not every new patch of green is a problem. Aquatic plants are a normal and beneficial part of a healthy lake. They stabilize sediments, provide fish and wildlife habitat, and help compete with algae for nutrients. The key is identifying whether what you are seeing is a native plant, an invasive species, or a nuisance algae growth. Filamentous green algae along shore and can indicate a source of excess nutrients reaching the lake, such as septic leakage or fertilizer runoff. If something looks unusual, please snap a photo and I will be happy to help you identify whatever you have.

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Sandy Crystal Lake shorelines with and without rock jetties



Shoreline erosion after sustained heavy winds

Protecting Crystal Lake Now for Generations to Come.



“WHAT I’VE LEARNED FROM RIPARIAN SITE VISITS”

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Another question I often hear is, “How can I maintain my property while also protecting the lake?” CLWA members care deeply about Crystal Lake, and many of you have spent years living on or visiting its shores. I enjoy hearing your observations about how the lake has changed over time, and I am equally glad to help with practical ways to protect it. During these visits, we often talk about plant identification, invasive

species, septic system maintenance, swimmer’s itch, and rain gardens. The good news is that small actions can add up. Steps like widening a shoreline buffer of vegetation, maintaining your septic system, or installing a rain garden can all make a meaningful difference for the lake.

If you have any questions at all about Crystal Lake this summer

please feel free to reach out. Contact me through the CLWA at info@crystallakewatershed.org.

Answering questions and conducting sites visits is one of my top priorities and joys as your Lake Biologist!

John Ransom,
CLWA Lake Biologist



Using an aqua scope to identify aquatic plants in Crystal Lake



John Ransom explaining water quality testing to 6th grade students

HELP THE CLWA FIGHT SWIMMER’S ITCH

Despite the fact that the State of Michigan has continued to ban the relocation of merganser ducks, the CLWA is once again asking for your help in maintaining its swimmer’s itch data base which is an invaluable research tool.

Please report sightings of merganser broods and cases of swimmer’s itch. Broods began to appear in late May and SI cases will follow when the lake has warmed up enough for swimming. The Congregational Assembly began to collect data on swimmer’s itch cases when its season opened on June 15.

Reporting can easily be done with a click in the big red “box” on the **Home page** of the CLWA website (<https://crystallakewatershed.org/>). **Remember to report only BROODS (baby ducks with one or more adults), not adult birds on their own.**

Swimmer’s Itch Solutions LLC will continue CLWA’s research program, including snail infection analysis, a full bird count of possible SI carriers on the lake, collection of data entered on line and analysis of public reporting.

An informative brochure on SI can be found on the CLWA website (<https://crystallakewatershed.org/swimmers-itich/>)



*Merganser brood seen near Shorewood Drive,
June 6, 2026*



UPDATE ON QUAGGA MUSSELS AND OTHER AQUATIC INVASIVES

Three years ago eDNA testing of water samples revealed the presence of **invasive quagga mussels** in Crystal Lake. It was sad news, but not totally unexpected. (See *Crystal Whitecaps*, Fall 2023.)

Further studies are aiming to gather data on the extent of the quagga population and its location. In August 2024 ponar dredging grabbed actual quagga mussels from the lakebed at several locations in about 60 feet of water. The NOAA Great Lakes Environmental Research Laboratory provided positive identification.

In October 2025 CLWA employed Zero Gravity Aerial to explore the deepest parts of Crystal Lake (ca 150 feet) using an underwater remotely operated vehicle (ROV). The videos recorded several concretions of mussels firmly attached to rocks or other hard objects. It was not possible to distinguish whether they were zebra or quagga mussels (or both) without firsthand examination.

It was good news that the deep water survey did not encounter any invasive Starry Stonewort, which is an increasing threat in Michigan inland lakes. This summer CLWA's team will use a new improved ROV to further investigate the extent of quagga and zebra mussel infestation and to look for other invasives like Starry Stonewort.

Last summer was the fifth year the CLWA has treated **invasive Eurasian watermilfoil (EWM)**. Once again aerial drone guidance assisted the application of the product, a procedure that precisely targets the plants and insures that

the minimal amount of chemical is used. The plant's extent is now about 2 acres with a significantly reduced biomass. We found no hybrids in any of the test sites – again, good news, since hybrid varieties can be more difficult to treat.

Plans for 2026 include a full drone survey of the lake to assess EWM. We have approximately 70 different sites, mostly small, on the south and east

shore. The original large infestations at the Beulah boat launch and Cold Creek are now quite well controlled. Treatment with ProcellaCOR and/or 2,4D will be in August.

CLWA's success in controlling EWM is largely due to its proactive plant survey (2016-2018) (see *Crystal Whitecaps*, Fall 2017) that enabled us to jump start treatment before the aggressive plant could reach a critical state, as

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Map of quagga mussel survey 2025



Mussels on log in deep water 2025



UPDATE ON QUAGGA MUSSELS AND OTHER AQUATIC INVASIVES

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it has on many other Michigan lakes. Interventions in future years will be subject to continued monitoring and evaluation. This is consistent with CLWA's goal of the absolute minimal amount of intervention.

In 2015 the CLWA began arranging treatment for a large aggressive patch of **invasive phragmites** on wetlands to the west of the DNR

boat launch. This plant is especially difficult to eradicate because it spreads via underground rhizomes, root fragmentation, and long above-ground runners.

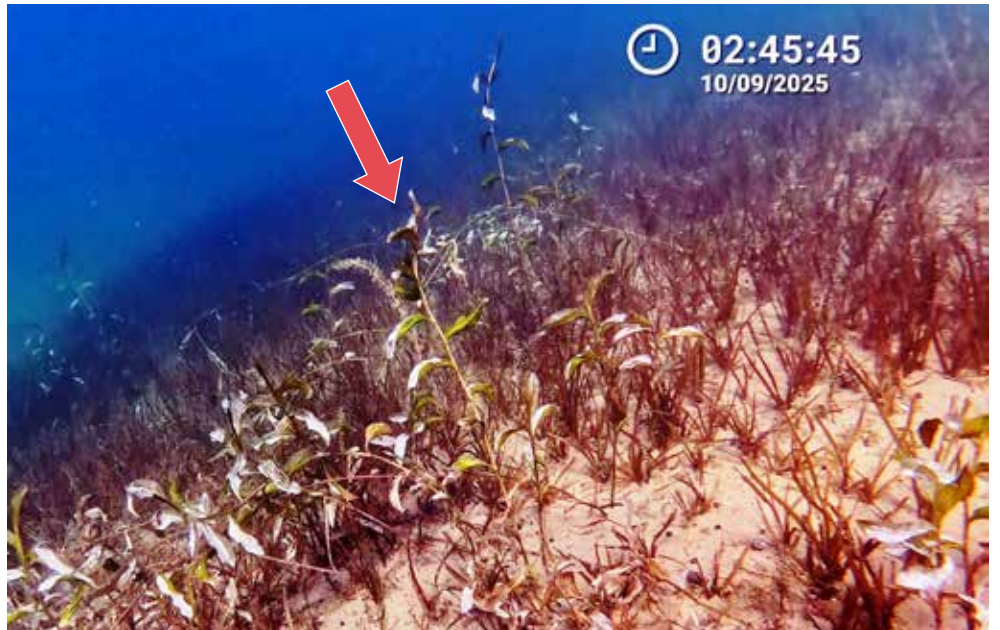
Annual treatments gradually reduced the expanse and vitality of the infestation, until inspections in summer 2025 found no more shoots. CLWA's persistence has apparently

brought this harmful invasive under control, but we will continue to monitor the location.

Controlling aquatic invasives species requires constant vigilance and early detection. Best of all is preventing the introduction of new invasives in the first place. Remember to clean, drain and dry watercraft and equipment before bringing it into Crystal!



Quagga mussels collected by ponar 2025



A sprig of Eurasian watermilfoil surviving off 3rd St in Beulah, October 2025.



Quagga (t) and zebra (b) mussels



Phragmites patch west of DNR boat launch 2015 (before treatment)

Protecting Crystal Lake Now for Generations to Come.



A NEW FUTURE FOR THE CRYSTAL LAKE OUTLET

After five years of planning a new public park will soon be taking shape at the Crystal Lake Outlet. Intended to provide universal access to Crystal Lake for non-motorized watercraft, the Railroad Point Boating Access Site will expand opportunities for the public to enjoy Benzie County's treasured lake.

In April 2026 the Benzie County Board of Commissioners awarded the \$550,000 contract to Walton Contracting, Inc., to construct the park. They plan to begin in August, with completion in September (*note that the Outlet area will be closed to visitors during this period*).

The Benzie County Parks and Recreation Commission worked with the Spicer Group engineering firm to design the park to meet the complex requirements. Several public hearings helped refine the design so that accessibility was combined with water quality protections, measures for stormwater management, setback from surface water, and preservation of vegetation.

The CLWA was an active participant in these discussions: in accordance with its mission, its input led to several changes that improved the protection for the water quality of Crystal Lake.

The park will add 29 acres to the adjacent Railroad Point Natural Area and provide access to 750 feet of shoreline. Less than one acre will be developed for the park amenities. It will be the only fully ADA-compliant public access site in Benzie County.

The facilities will provide a walk-in, ADA-compliant launch for canoes and kayaks, a wheelchair accessible boardwalk to the beach, a viewing platform near the Outlet dam, improved parking, and a scenic setting for quiet enjoyment of the lakeshore. A much-needed restroom will also serve the Railroad Point Area and the Betsie Valley Trail.

The CLWA has agreed to design and install a waterless cleaning station at the entrance to the launch, in keeping with its efforts to prevent the introduction of invasive species into Crystal Lake. This is crucial, since kayaks and canoes are craft frequently carried among various lakes and rivers.

The Michigan Department of Natural Resources (MDNR) originally purchased the property in 1998 when it was searching for a site on Crystal Lake to construct a public boat launch. But in 2002 they selected another

site to the east of Railroad Point. In 2021 the MDNR leased the neglected property to Benzie County for the purpose of developing a park with public lake access.

Funding for the project came from the Michigan Natural Resources Trust Fund (\$300K), the Grand Traverse Regional Land Conservancy (\$300K), the County's American Rescue Plan funds (\$80K).

The Outlet dam itself will continue to be under the control of the Benzie County Drain Commissioner.

The CLWA strongly supports public access to Michigan's water resources, which are held in trust for its citizens. For all projects proposed for the Crystal Lake watershed, our only concern is how they will impact the water quality of the lake – due to factors such as stormwater runoff, retention of vegetation, preservation of wetlands, introduction of invasive species, and wastewater control.

(For earlier report, see *Crystal Whitecaps*, Spring 2025, p. 4)



Plan of new park at the Crystal Lake Outlet



Future park, May 2026



STUDENTS TEST: IS SALT THREATENING CRYSTAL'S WATERS?

For the third year the CLWA sponsored a Service Day project for the Frankfort High School Interact Club. On May 5, CLWA Lake Biologist John Ransom led eight students in testing Crystal Lake water for its salt content. Salt contamination from road treatment runoff and other human activities presents a threat to the ecosystems of lakes and streams.

The group sampled eight different locations in Beulah and at Bellows Beach. This year, the highest reading was at the outlet drain at the end of Benzie Street in Fair Park. Benzie Street is very steep and collects stormwater runoff all the way from US-31. The stormwater outlet at Beulah Beach was the second highest reading. But it is important to note that, because of the new

stormwater infrastructure installed last year, there isn't a constant flow into the lake as in previous years. So now that site is more like a catch basin than an outlet.

As in previous years, the stormwater outlet at Beulah Beach and the Fair Park outlet registered the highest levels of salt, both over 100 parts per million. These results are safely below the maximum Michigan standards for surface waters, but the concentrations at these two sites probably mean that salt runoff from nearby roads is entering the lake.

The event provides experience in scientific methods and familiarizes the students with the Crystal Lake watershed. It also aims to raise their awareness about the environmental

threats that affect their community. Science teacher Tim Reznich accompanied the group.

In a report to the Frankfort City Council, City Superintendent Josh Mills, thanked the organizations who sponsored Service Day activities and described it as a "powerful example of what makes our community so special." He praised it for encouraging the students "to contribute directly to the places that make Frankfort and the surrounding area such a vibrant place to live, while also gaining a deeper understanding of civic responsibility [and] environmental stewardship."

Mills further noted that "Events like this... invest in the next generation in a meaningful and lasting way." The CLWA is proud to be part of it!



Students testing samples for salt at Bellows Beach



Salt testing strips (provided by Isaak Walton League of America)

CELEBRATE THE CLWA!

Join the CLWA community at the Stormcloud Parkview Taproom on July 11, 6 to 8pm, when its "Generation to Come" supporters host their **6th Annual Keep Crystal Clear fundraising event**. They invite friends and family to spend an evening of local brews, music

and good company while giving to a cause that impacts us all.

Tickets are a donation to the CLWA and provide discounted drinks, live music and more. Tickets available through the CLWA website (www.CrystalLakeWatershed.org, click "Calendar") or at the door.



Emma Sznewjas, Coleman Schindler, Jack Kirkwood, Casey Tull at KCC 2025



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crystallakewatershed.org/education/newsletter

MEET THE CLWA

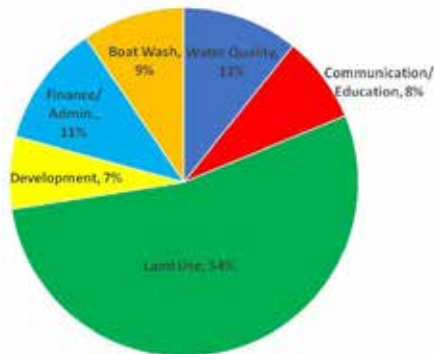
The CLWA will be participating in these local events during the summer of 2026. Please visit our booth and say hello! Let us know what's on your mind. Information on protecting our watershed will be available. CLWA T-shirts and hats will be for sale.

- July 11** Beulah Art Fair
- July 11** Keep Crystal Clear Fundraiser, Stormcloud Parkview Taproom, Frankfort
- July 22** Congregational Summer Assembly Arts and Crafts Fair
- August 14-15** Frankfort Art Fair

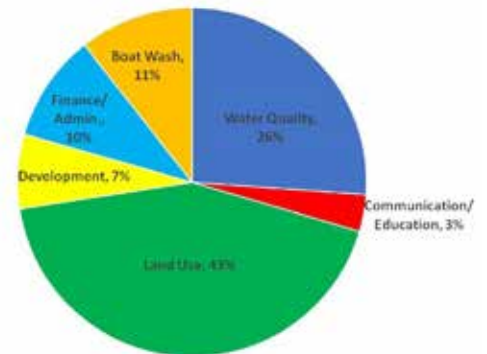
Details on the CLWA website <https://crystallakewatershed.org/calendar/>

THANK YOU FOR YOUR SUPPORT! SEE HOW THE CLWA USES IT.

CLWA 2026 Budget of \$384k



CLWA 2025 Expenditures of \$301k



2026 CLWA ANNUAL MEETING — ALL WELCOME!

The CLWA's 2026 Annual Members Meeting will be held on Saturday, July 25, 9:30-11:00 am at the Mills Community House, 891 Michigan Avenue, Benzonia, MI 49616. **All are welcome** to come and hear updates on swimmer's itch control, invasive species treatment, and other current CLWA activities.

Minutes of last year's meeting can be found at the CLWA website. They will be approved by mail or online vote.