



CRYSTAL WHITECAPS

The Newsletter of the Crystal Lake & Watershed Association

Vol. 10, No. 1

Summer 2014

SUMMER AT CRYSTAL LAKE!

There is nothing more enjoyable than all that is Crystal Lake. So many moments with family and friends, from the many local attractions to the simple beauty of our lakeshores and the natural intimacy that come with them.

It is Crystal Lake that brings our community together and it is the Crystal Lake & Watershed Association that is constant in its stewardship of this wonderful natural resource. The efforts required to provide active and effective stewardship are a community endeavor. Whether you are a member supporting the CLWA, a contributor funding our programs, or a volunteer rolling up your sleeves, you understand that only by working together can we maintain the excellent water quality of Crystal Lake and actively support the watershed that makes this possible.

CLWA'S WATER QUALITY IMPROVEMENT PROGRAMS IN 2014 INCLUDE:

☑ Swimmers' Itch Control – actions designed to reduce the incidence of infection by managing the physical carriers

of the pest, research aimed at protecting individual swimmers and programs designed to minimize the potency of the pest while we work to control its source. See the swimmer's itch report inside this newsletter.

☑ E. coli – CLWA has contributed half of the necessary funding plus a set-aside sum to help Beulah conduct regular testing and remedial testing for E. coli on its public beach. State funding is not available in 2014 for this important benchmarking and swimmer safety program and the CLWA is stepping forward to make it happen.

☑ Lake Level Management – CLWA is installing a telemetric, year round lake level management system to provide a key component to managing water level in Crystal Lake. This system will aid in preventing unnecessary erosion, contamination and flooding in our watershed.

☑ Watershed Management Planning – CLWA is a lead contractor in the development

and production of this \$162,000 project. By 2015 we will have a watershed management plan in place that prioritizes water quality protection and improvement initiatives and significantly supports funding of efforts to maintain our water quality.

☑ Boat Washing – the CLWA has built and funded a boat washing station at the Mollineaux Road MDNR Boating Access Site. Boat washing is now required before launching a craft in Crystal Lake and failure to do so is subject to an immediate \$500 fine. The CLWA makes compliance painless by providing this free-of-charge boat washing facility -- use it! It is open 24 hours a day, 7 days a week.

The CLWA is making a difference and your continued support makes this possible.

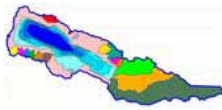
Thank you,

Joel A. Buzzell,
President CLWA

CLWA ANNUAL MEMBER MEETING

Saturday • July 19th • 9:30am
Congregational Summer Assembly Community Building

"Protecting the integrity of Crystal Lake, Benzie County, now and for the future."



WATER QUALITY UPDATE

The CLWA Water Quality committee, under the leadership of Hugh Walton, is actively working on many fronts to help preserve Crystal Lake's crystal clear waters.

The introduction of zebra mussels into Crystal a number of years ago increased awareness of the dangers posed by invasive species, which are often carried by itinerant watercraft that move from one lake to another. To combat this threat, the CLWA negotiated, funded, installed, and is now operating a public boat washing facility at the new state Crystal Lake Boating Access Site near Mollineaux Road. All those whose boats have recently navigated in other bodies of water are now required by township ordinance to wash their craft before launching into Crystal (fine for violation is \$500). The washing station is free of charge and open around the clock. Operation is quick and user-friendly, with a small staff there to help part time. Come try it out this summer!

Central to preserving Crystal's character is ongoing water quality testing, which has provided an unrivaled data base going back over twenty years, thanks to the dedication of CLWA's predecessor organizations. Now being carried out by Mike Jones of the Benzie Conservation District on behalf of CLWA, these tests record chemical, biological and physical characteristics of the water, including clarity, pH balance, dissolved oxygen, nutrients (phosphorus and nitrogen), sediments, and numerous other features that reveal the overall health of the lake and detect potential future threats. Crystal Lake water, because of the body's size and depth, changes very slowly, making this long-term tracking invaluable for insuring its future.




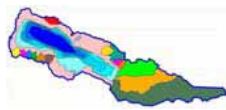
Hunter McDaniel enjoying a spring morning at the Crystal Lake outlet.

This summer the CLWA will also be helping to fund E. coli testing, which had previously been carried out by the state of Michigan. In order to continue this crucial oversight while Michigan directs its resources elsewhere, CLWA will provide support to Beulah Village to continue regular tests at their public beaches, where E. coli was detected last summer.

During the past year the CLWA turned new attention to the fluctuating water levels of Crystal Lake, which caused ice damage, washed out beaches and flooded a home during rapid thawing in the spring of 2013. High water levels also lead to erosion that brings contaminants into the lake. While the "official" lake level is regulated by a 1980 court settlement, the practical means to monitor and

control the actual level have not been adequate over the years. To bring more accurate oversight to the water level, the CLWA has raised the funds to install an automated (computer controlled) lake level gauge, similar to one already in operation at Glen Lake. This should soon be operational so that it can be tested over the summer, before the major seasonal fluctuations that the lake always experiences.

Looking to the future, the Water Quality committee will be paying attention to the presence of plant invasive species, erosion and run-off at road ends around the lake, and shoreline management. They always welcome hearing your observations, concerns, and questions. Chair Hugh Walton can be reached at 231-882-9812 or hughwalton@crystalmountain.com. 



CRYSTAL LAKE SWIMMER'S ITCH PARTNERSHIP (CLSIP)

CLWA is working with and financing the activities of the Crystal Lake Swimmer's Itch Partnership. CLSIP is a determined steering committee of concerned individuals and organizations from around the lake that has implemented a multi-faceted program to reduce the scourge that severely threatens many water lovers' enjoyment of our lake.

Experience has shown that there is no "silver bullet" for eliminating swimmer's itch, despite decades of trying. The rash and itching experienced by many swimmers is only the human end of a parasitic cycle of interdependent biology among waterfowl (mainly merganser ducks), snails, and their byproducts. CLSIP's activities are aimed at breaking this cycle and providing lasting long-term relief.

This spring a comprehensive program of pyrotechnics is underway to discourage mergansers from residing in the vicinity of Crystal Lake. At ice-out the birds arrived in the area, and a team of volunteers located around the lake set off purpose designed "fireworks" to deter them from settling down. This approach has proven effective at Glen Lake, and preliminary

observations suggest that the number of mergansers on Crystal has been reduced. Next year more volunteers are needed to increase the lake-wide coverage, so that the ducks don't simply move to another place on the lake.

Over the summer CLWA will resume its program of beach scarification, that is, raking the lake bottom regularly at several swimming beaches. This action disrupts the snails living on the bottom and causes them to disperse the parasite that dies in the water within 24 hours. Data recorded at the Congregational Summer Assembly in 2012 provided important information about the incidence of swimmer's itch under various conditions and demonstrated the utility of scarification.

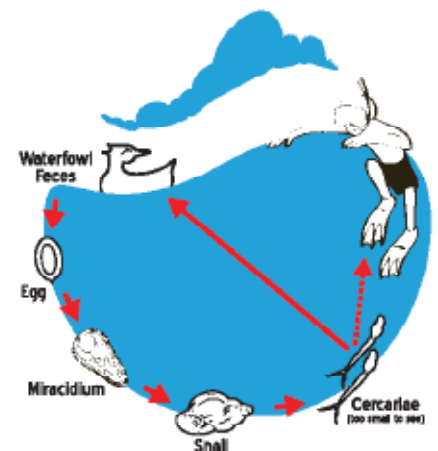
Further reduction of the merganser population can be achieved in the fall, when hunting these birds becomes legal. Since they are not a popular game bird for eating, CLWA is supporting targeted hunting for this species for other purposes.

The fourth component of the swimmer's itch program is scientific testing of products applied to human skin that are said to be

protective. This will not be active in 2014, as the CLWA seeks partner lake association participation to expand the scope of the study and share the costs. Preliminary results of the initial pilot program in 2012 did identify a product that, unfortunately, did not fully live up to its 100% effectiveness claims. We expect that further research will guide us to more effective products and improved product development.

The Swimmer's Itch group always needs volunteers. If you would like to participate in 2015 pyrotechnics or be a guinea pig for testing protective products, contact Chair Ted Fisher at (summer) 231-399-0067 or fisher5531@gmail.com.

SWIMMER'S ITCH CYCLE



THE COMEDY OF CRYSTAL LAKE



I. The Lowering of Crystal Lake;
II. The Biography of Archibald Jones

by a Humble Saunterer
Stacy Leroy Daniels

A Summary Chronicle with Many More Sidelights, of a Tale written in Two Parts, describing a seemingly Ill-Fated Historical Event, so epochal in its nature as to have had a permanent bearing upon the development and future of Benzie Co., Northwest Lower Michigan, together with myriad viewpoints of its diverse characters and sundry locales, etc.

PUBLICATION:

Summer 2014 (400 pp; 46 chaps; photographs, maps, timelines, & sidelights)

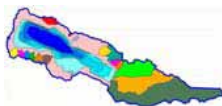
PRE-ORDERING & INFORMATION:

989/835-5593 or stacydan@chatermi.net. Price \$49.95 (hardcover)

• ACTION •

Donate to help fund the Archibald Jones Historical Market at the Crystal Lake Outlet.
Donations Received will be matched to a total of \$2000.

"Protecting the integrity of Crystal Lake, Benzie County, now and for the future."



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SUMMER 2014

CLWA EVENTS

April 27.....	Board Meeting
May 17.....	Board Meeting
June 21.....	Board Meeting
July 12.....	Board Meeting
July 19.....	Annual Meeting (9:30 a.m.)
August 23.....	Board Meeting
September 20.....	Board Meeting
October (TBA).....	Fall "Walkabout"

Dates for CLWA events subject to change.

Schedules for CLWA Board Meetings to be communicated by email.

LOCAL EVENTS

June 21.....	Frankfort Craft Fair
June 21.....	Elberta Solstice Festival
June 27-28.....	Take a Kid Fishing & Nitecrawler Hunt
July 04.....	Parades & Fireworks – Beulah/Frankfort
July 04.....	Firecracker 5K Race - Beulah
July 05.....	Beulah Art Fair
July 19.....	Port City Run / Port City Art & Craft Fair
July 23.....	CSA Arts & Crafts Fair
August 9.....	Crystal Lake Team Marathon
August 15-16.....	Frankfort Art Fair
August 23 • 11 a.m. to 3 p.m.....	Archibald Jones Day
October 5.....	Betsie Valley Run – Crystal Mountain
October 4-5.....	Fall Festival - Beulah
October 11.....	Fall Festival - Frankfort

For updated event lists visit

CLWA.us • Benzie.org • Frankfort-Elberta.com



Erosion at Bellows Beach is a focus of the Betsie River and Crystal Lake Watershed Management Planning effort.