



# Crystal Whitecaps

The Newsletter of the Crystal Lake & Watershed Association  
Vol. 4, No. 1, FALL/WINTER 2007

**Nelaura Orr "Rusty" Lewis, a longtime resident and supporter of our CLWA, died on July 15<sup>th</sup>, 2007. She was a 5<sup>th</sup> generation resident at Crystal Lake, where she spent much of her time on the preservation and welfare of our Lake. While on the Board of the former Crystal Lake Association, she was instrumental in combining the two Lake Associations. We believe this to be her lasting legacy for helping to protect Crystal Lake for future generations.**

## RECORD LOW LAKE LEVEL

**The level of Crystal Lake is at its lowest level in 37 years!** This is a result of several factors. Low amounts of precipitation means less water going into the Lake. Less ice cover in the winter and warmer temperatures in the summer mean more evaporation. The level of Crystal Lake is controlled by the Outlet Dam, on the SW shore west of Railroad Point. The level was set at 600.48 feet until 1980, when it was replaced by a two-tiered level. The summer level is now set at 600.25 feet (May 1 - Oct. 31); the winter level is set at 599.75 feet (Nov. 1 - Apr. 30). This compromise allows higher water for recreation in the summer, and lower water to limit shoreline erosion in the winter. At the present time, the gates are closed and a sand bar stops water from flowing out of the lake. *(Continued on Page 4).*



## PRESIDENT'S LETTER

2007 has been productive and filled with important new challenges. While we await the decision in the boat launch litigation, discussed below, new issues have jumped to the forefront.

### NO DECISION YET ON BOAT LAUNCH CASE

**The administrative hearing before Judge Dennis Mack was begun September 2006 and completed in March 2007. The final proposed Findings of Fact and Conclusions of Law were submitted to Judge Mack by the parties in June. His decision will be reviewed by the Michigan Department of Environmental Quality Director.**

This case was commenced because the Michigan Department of Natural Resources and Michigan Department of Environmental Quality failed in their two-part responsibility to provide boater access and protect water quality. Whether we win or lose at this stage of the process, our goals are the same as those originally stated. Our desire is for a boat launch at the proposed Labadie/Cole site, but we want it to protect the water quality of Crystal Lake so all in our community can enjoy the wonderful lake, both now and for future generations. We remain ready to work with the State to make this happen. *(Continued on Page 2).*

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



**As to the evidence presented at trial, we believe the record establishes that the permit granted for the proposed boat launch was improperly prepared and approved by two public agencies in disregard of statutory permitting requirements. As such, the project is illegal, and if constructed would destroy the most significant wetland adjoining the Lake and negatively impact the water quality of the Lake. We believe the Administrative Law Judge will recommend revoking the permit.**

**We are very disappointed, that more than six years after it was proposed, Crystal Lake still does not have a much needed public boat launch in place because the MDNR doggedly refuses to consider a launch of more moderate design and size at the Labadie/Cole site agreed upon in 2001.**

The legal expenses incurred by the protracted proceedings in the boat launch litigation have been costly. We have had success from two special fund raising appeals. We need to rebuild the treasury. Many many thanks to those of you who have generously contributed.

### **ROAD ENDS LEGISLATION**

On June 27, the Michigan House passed legislation increasing the scope of public access to bodies of water from the ends of public roads. House Bill 4463 states that a marina can be built by a local government at the end of any public road which terminates at a body of water of over 2,500 acres. A companion Bill 4464 establishes a recreational presumption for road end dedications. Local townships would have the option to adopt ordinances allowing docks of up to 250 feet in length and five feet in width at each road end for seasonal overnight moorings from boat slips or hoists from May 1 to September 30 to be allocated through a lottery or fee system. The legislation now is in the Michigan Senate Committee on Government Operations & Reform.

**The CLWA Board determined that these bills would neither protect nor improve the water quality of Crystal Lake, but to the contrary will negatively impact the water quality and be detrimental to the lake and its watershed. In October the Board of Directors for the CLWA passed a Resolution in opposition to House Bills 4463 and 4464 and urging our representatives in the Senate and House to oppose the current version of the road end bills. The Board's reasons included: the limited space at road ends; lack of parking areas and public sanitation and refuse facilities; pollution potential; restriction of MDEQ's authority to issue/decline marina permits; failure to provide for dredging regulations; docks crowding out favored activities (swimming and fishing). The bills would create hazards at road ends, on adjacent roadways and nearby lake properties, conflicting fee provisions; and limit public use of road ends by issuance of docking facilities for privately owned boats. The legislation is opposed by the MDEQ, the Michigan Townships Association, and the Michigan Attorney Generals office and overturns a century of Michigan case law.**

Details on other current issues and activities, including reports on the alternatives for the "Benzie Corridor" within the Sleeping Bear Dunes National Lakeshore, 2007 summer events, water quality, the Crystal Lake Watershed Overlay District and the Shoreline Stewardship Committee projects are also covered herein.

Best wishes for the holidays!

*Bob Appleford, President*



## **BENZIE CORRIDOR**

The Benzie Corridor was proposed in the original legislation creating the Sleeping Bear Dunes National Lakeshore in 1970 to be an eight-mile scenic road from M-22 to US-31 along the high ridge between the Crystal and Platte Lakes. It would encompass about 960 acres over a route along the ridge overlapping the viewsheds of both lakes.

**The park service has presented four alternatives (1) continued purchase of lands from willing sellers; (2) cease acquisition of lands; (3) continued purchase for development of a scenic road similar to the Pierce Stocking Scenic Road; or (4) continued purchase for development of a trail for hiking and biking. Concerns vary according to which alternative is considered. These include: type and route of access, designated uses and hours of operation, and potential effects upon the viewsheds and water quality of the two lakes. Other issues are how to balance wilderness protection with vehicle access. The park service plan proposes all county roads to remain open.**

The SBDNL planning timetable includes public meetings and selection of preferred alternatives to early Summer 2008; preparation of Final General Management Plan/Wilderness Study/Environmental Impact Statement to Fall 2008; and implementation of Approved Plan in Winter 2008-2009 and beyond.

A portion of the proposed corridor located between Harris and Warren Roads was walked on October 21 by representatives of the **CLWA**, members of Citizens for Access to the Lakeshore, and local government officials. (See *photo on page 8*). Andy Norman, former MSUE Extension Agent and past member of the Planning Commission, served as guide. The walkers agreed some of the views are spectacular.

## **CRYSTAL LAKE WALKABOUT**

The ***Crystal Lake Walkabout***, our educational program to teach students, property owners, and visitors about the Crystal Lake watershed using a “hands-on” approach of observational monitoring and environmental exploring completed its 15th year. The program focuses on hydrology – how water moves about the watershed, also addresses water quality, ecology, land use, zoning, septic tanks, green belts, and watershed management.

The Spring ***Walkabouts*** were held in May for 180 students from the 6th grade science classes of Benzie Central and Frankfort/Elberta Schools. The Summer ***Walkabout*** was held in July for 30 adults and children. The Fall ***Walkabout*** was held in October for 180 students from the 7th and 8th grade science classes of our local schools. The sites visited include: Crystal Lake at CSA beach, The Betsie Valley Trail, US Coast Guard Station in Frankfort, Bellows Park (groundwater quality); Point Betsie (dune ecology); and the Crystal Lake Outlet (river wetlands and Great Lakes).

We especially appreciate the dedicated teachers who support the ***Walkabout*** and most importantly their students. Special thanks also to the Site Interpreters from the **CLWA**; MSUE MI Groundwater Stewardship Program; Michigan Land Use Institute; Benzie Conservation District; Friends of Point Betsie Lighthouse; U.S. Coast Guard Station - Frankfort; SBDNL; Benzie Area Historical Society; the Benzie/Leelanau District Health Department and Karen Dahman for her work which used early elementary science curricula following National Geographic Society standards.

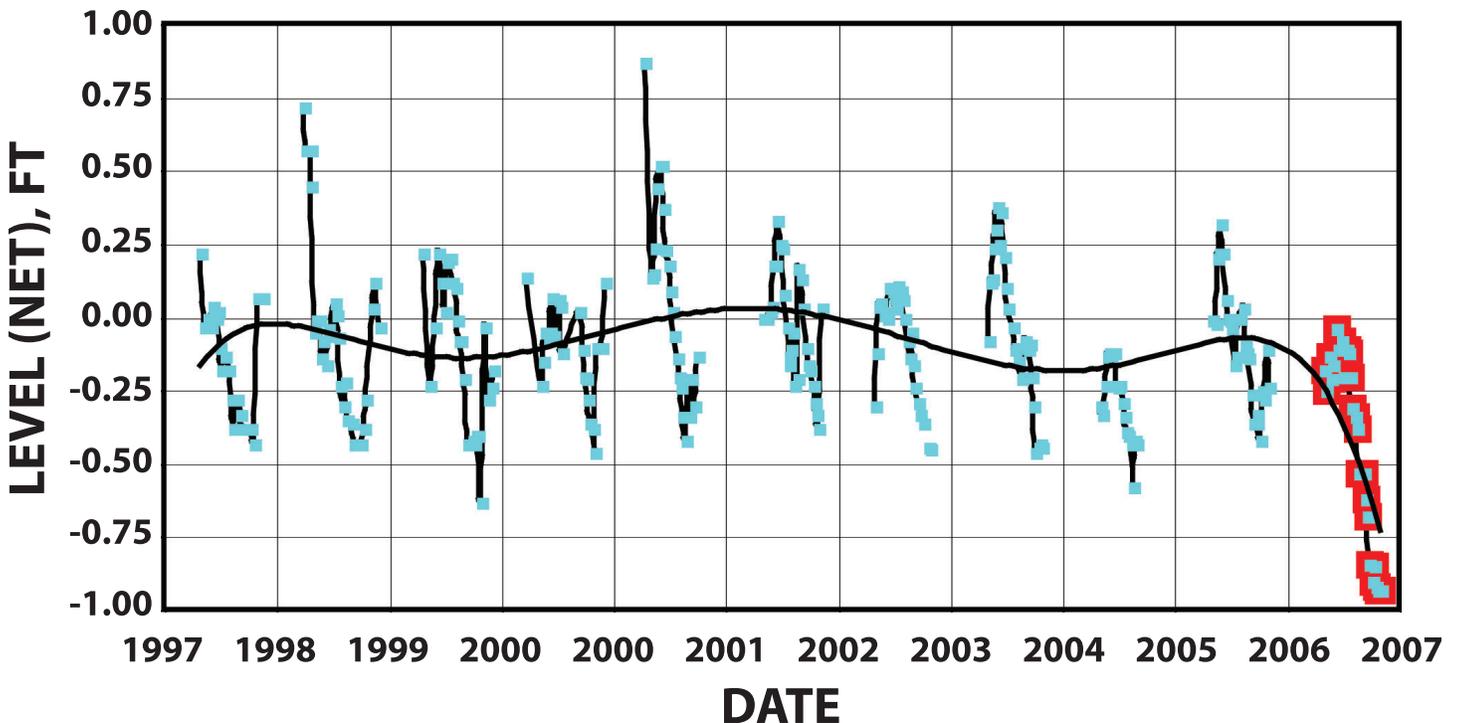


## **RECORD LOW LAKE LEVEL**

*(Continued from Page 1)*

The "Tragedy of Crystal Lake" recalls the dramatic lowering of the lake level in 1873, when an ambitious but ill-advised project was put through in an effort to connect Crystal Lake and Lake Michigan with a navigable channel. The original level of Crystal Lake was, at that time, much higher than its present level. The project was a complete failure in respect to its accomplishing its proposed purpose. The result was the lowering of the lake and exposing a wide stretch of beach around the entire lake and making possible the development of Crystal Lake as a resort and residential area as well as the site of the village of Beulah. Three monuments, erected in 1978 by the people of Benzie County, stand at the original level of Crystal Lake.

The lake level over the past 37 years (1970-2007) has shown small but repeating cycles of yearly rise and fall. These cycles have averaged about plus-or-minus six inches for most years. The Lake starts "full-and-overflowing" above the set level due to snowmelt and spring rains. Management of the Outlet Dam requires storing water in the spring to compensate for evaporation loss during the summer. In 34 of the 37 years, the spring level has started above the set level. In 11 of the past 37 years the late fall level has dropped below the set level but recovered with fall rains and winter snow. Precipitation to date in 2007 is only 17.52 inches compared to 32.50 inches for all of 2006. Unlike 2006, which was a more typical year, 2007 started below the set level and has continued downward throughout the summer and fall. As of October 29, the lake level of 599.32 feet was its lowest level in the past 37 years. The lake level over the past 11 years (see Graph) shows seasonal high-and-low cycles. The unusual low level in 2007 is illustrated by the abrupt drop on the trend line.





## **SHORELINE STEWARDSHIP**

A new program begun in summer 2007 encourages good lake stewardship through the use of buffer zones adjacent to the shoreline. The program is a collaborative effort between the **CLWA** and the Benzie Conservation District (BCD). The mission of the BCD is to encourage and assist people in preserving, managing and enhancing Benzie Country's natural resources. The Committee seeks to identify shoreline dwellers whose endeavors protect water quality and create attractive, low-maintenance lakefronts.

**The Committee's first selection of an example of excellent Watershed Stewardship is the shoreline of Dr. and Mrs. James Hamp of 2507 South Shore East (see photo on page 8), who created a functional and aesthetically pleasing buffer zone that includes native species, such as dune grasses with deep roots, which require little weeding and watering, no fertilizers, and no mowing. In the future, the Plant It Wild (PIW) organization will partner with the Shoreline Stewardship Committee to highlight a buffer site where a variety of native plants predominate in a natural, unstructured, but beautiful, maintenance-free way. The mission of PIW is to preserve, protect and promote the natural beauty of this area and its plant communities. Committee members are available to offer advice about establishing and maintaining buffer zones.**

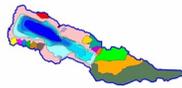
## **CRYSTAL LAKE WATERSHED OVERLAY DISTRICT**

The Crystal Lake Watershed Overlay District (CLWOD) ordinance was adopted by Benzie County on November 1, 1994. It provides certain protective measures for the entire watershed of Crystal Lake. This unique ordinance places reasonable restrictions on steep slope development and establishes standards for soil erosion control and vegetative management around the shoreline. The Benzie County Planning Commission has recognized the value of such protective overlay districts to implement a key component of the Benzie County Master Plan that recognizes the intrinsic value of the inland waters of Benzie County. Consideration of a general "Waterbodies Overlay District" ordinance with minimum standards applicable to all inland waters of Benzie County led to the realization that the individual watersheds of our lakes and streams had distinct differences. The **CLWA** is submitting an updated map of the Crystal Lake Watershed. A three-dimensional GIS map of the critical steep slopes of the high ridges surrounding Crystal Lake is also being developed by the **CLWA**.

## **THE CRYSTAL LAKE & WATERSHED ASSOCIATION**

The **CLWA** is a nonprofit 501(c)(3) organization with over 1,000 members that support a comprehensive program of activities affecting students, riparian owners, and visitors in the Crystal Lake Watershed. The CLWA encourages members to contact local and state government on local issues of critical importance to the sustainable development of the Crystal Lake Watershed.

The **CLWA** is comprised of the Executive Committee; four standing Committees: the Water Quality Committee, the Zoning & Land Use Committee, the Education & Communication Committee, and the Financial Development Committee; and ad hoc Committees: the Boat Launch and Road Ends, Long-Range Planning, Benzie Corridor, Swimmer's Itch, Finance and Shoreline Stewardship. Our newsletters and webpages describe recent and ongoing activities. Please contact the **CLWA** if you would you like to participate on a Committee!



## **WATER QUALITY - Don't Feed Your Lawn or the Lake!**

Phosphorus ("P") is a nutrient in fertilizers used for lawns, gardens, and farms, and an ingredient of detergents. It is also found in septic tank discharges. "P" is the limiting nutrient in lakes and streams where it can cause excessive growth of algae and aquatic plants. Dissolved oxygen in water can be depleted by decomposing organic matter causing fish to die. Windrows of dead vegetation can foul beaches and produce unpleasant odors. The chemistry of Crystal Lake, however, causes the "P" to become insoluble and settle to the bottom where it is less available.

## **WATER QUALITY MONITORING**

**The CLWA and its predecessor organization have monitored deepwaters, shoreline waters, and tributaries flowing directly into the lake for various chemical and physical parameters for several years using a Hydrolab® H20 multiprobe to determine if these parameters have changed from established baseline levels. Parameters include: temperature, dissolved oxygen, pH, conductivity, redox potential, and turbidity. Analyses for nutrient phosphorus and nitrogen, and for chlorophyll a (an indicator of algae growth) are also made in laboratories on collected water samples. Over the past 12 years most parameters have changed very little or have improved.**

In 2007, Kyle Axtell of the Benzie Conservation District (BCD) provides monitoring services to the **CLWA**. (See *photo on page 8*). He is the Environmental Outreach Coordinator for the BCD where he promotes the use of greenbelts along waterways. Continued thanks to the Benzie County Marine Patrol, who assist the **CLWA** by monitoring water clarity with a Secchi disk during their patrols on Crystal Lake. The **CLWA** also participates in the Cooperative Lakes Monitoring Program (CLMP) jointly co-sponsored by MDEQ and the Michigan Lake & Stream Associations (ML&SA).

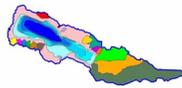
## **FINANCIAL DEVELOPMENT**

This fall Peggy Burns and our Financial Development Committee carried out a successful new membership campaign. It still is not too late to pay your **CLWA** dues for 2007 or give a membership to a family member as a holiday gift. **CLWA** memberships are \$35 per year. If your business has a matching gift plan, please consider the **CLWA**. You can use the convenient response envelopes. Anyone wishing to prepay dues for the coming year may do so at the end of the year by indicating on the response form that it is to be credited to the next calendar year.

**Our committee thanks Lisa Christian for her ongoing design work for our Directory.**

## **CLWA ANNUAL MEETING**

The **CLWA** Annual Meeting was held on July 21, 2007 at the CSA Assembly Hall. A short business meeting was followed by Committee updates. New Board members for a three-year term are: Tom Clare, Doug Gibson, Ed Hoogterp, Phil Meek, and Hugh Walton. Re-elected were: Alan Appelhof, Vice President; and Bob Schmidt, Treasurer, and Board members Stacy Daniels and Elizabeth Hill. A Crystal Circle Award was given to Ron Renner. New members on the Executive Committee are Stacy Daniels and Phil Meek. A special tribute was given to Charlotte Reid, former U.S. Congresswoman, instrumental in the establishment of the Sleeping Bear Dunes National Lakeshore (SBDNL). The featured speaker was Tom Ulrich, Assistant Superintendent, SBDNL, who described "The Benzie Corridor – Management Alternatives".



## **PLAUDITS and CONGRATULATIONS**

Many thanks to our Committee Chairs, committee members, other volunteers, outgoing board members: Ken Baker, Chuck Clarke, Cliff Graves, Tom Osborn and Toby Tull, and also our excellent office administration by Karen Dennis.

To Karen Dahlman for successfully obtaining a grant from The Friends of the Betsie Valley Trail to billed a buffer zone garden using native plants at the Betsie Valley Trail House in Beulah.

Congratulations to the **CLWA** team of Janet Krueger, Cody Krueger, Jim Millar, Jane Limmer, Joe Perrino, and Stacy Daniels, who ran the 26 miles of the 2007 Crystal Lake Team Marathon in 3:55.07!

## **WATERSHEDWEAR**

The **CLWA** has an expanded line of "Watershedwear". Now available are: standard **CLWA** "Wave" T-shirts; the well-known "Walkabout" T-shirts; as well as baseball caps, stocking caps, open-topped caps, and baby buntings (blue & pink). Contact the **CLWA** office.

## **www.CLWA.us**

The **CLWA** Website contains a history of the Crystal Lake Watershed, many maps, facts and figures, descriptions of the **CLWA**, activities by our standing Committees, photographs, a calendar of events, publications and references, links to other websites, and summaries of current events. Recent updates include information on the developing General Management Plan / Wilderness Study by the SBDNL. A Survey Form asking readers to rank issues and concerns was added.

## **SUMMER 2007 EVENTS**

In addition to water quality monitoring, swimmers itch research, and the new summer intern program, our summer activities included participation in four Art Fairs. Special thanks to Sue and Tom Teteak for their donation to the kayak raffle fundraiser, and to Crystal Lake Adventure Sports, Beulah, MI, for providing the kayak for the raffle. *(See photo on page 8).*

## **2008 CALENDAR (Dates for CLWA events subject to change)**

April 16-18	48th Annual Michigan Lake & Stream Associations Conference
May 14	Crystal Lake "Walkabout" - 6th grades (Benzie Central & Frankfort/Elberta Schools)
May 24	<b>CLWA</b> Board Meeting
June 14	13th Spring Craft Fair - Frankfort
July 4	Parades and fireworks – Beulah and Frankfort; Firecracker 5K Race - Beulah
July 12	Beulah Art Fair
July 19	Elberta Art & Crafts Fair; Port City Run
July 23	Congregational Summer Assembly Arts & Crafts Fair
July 19	<b>CLWA</b> Annual Meeting
July 23	Crystal Lake "Walkabout" - Open to the general public
August 9	Crystal Lake Team Marathon
August 16	33rd Frankfort Art Fair

### **Crystal Lake & Watershed Association**

PO Box 89, Beulah MI 49617

Tel 231/882-4001 Fax 231/882-7810

**www.CLWA.us**    **info@CLWA.us**



*Doug Gibson and Kyle Axtell Monitoring Water Quality.*



*Tom & Sue Teteak with the "Crystal" Kayak Raffle.*



*Jim and Leslie Hamp's award winning buffer zone shoreline.*



*Walking the "Benzie Corridor".*



*One of the views from the Benzie Corridor.*