



CRYSTAL WHITECAPS

The Newsletter of the Crystal Lake & Watershed Association

Protecting Crystal Lake Now for Generations to Come.

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PROTECTING THE CRYSTAL LAKE WATERSHED FOR 28 YEARS

Why is the CLWA called a “watershed” association” rather than a “lake association” like most of its peers around the states?

We owe it to our forward thinking predecessors, who recognized that the waters of Crystal Lake are not an isolated entity but part of a complex and extensive ecosystem impacting several townships over much of Benzie County. This is the Crystal Lake Watershed: an expanse of land that drains into a single body of water, Crystal Lake.

Rainwater, snow melt, springs and ground water flow from higher elevations to the low point, the lake. Along the way, those waters pick up hitchhikers from the land they flow through, such as chemicals, E. coli, bacteria and other substances that can be harmful to those crystal clear waters that we prize.

Zoning for Water Quality

In 1994, out of concern for the accelerating development in the area, Benzie County adopted the Crystal Lake Watershed Overlay District zoning ordinance, which focused on restricting construction on steep slopes, controlling erosion, and maintaining shoreline vegetation. Now administered by the townships of Benzonia, Crystal Lake, Lake, and Beulah village, the Overlay creates uniform protective standards within the environmentally sensitive Watershed, “overlying” the established political boundaries. The Overlay imposes special provisions **in addition to** the zoning that exists for all property in each Township.

By 2018 the CLWA had become aware that the scale of development was accelerating and new scientific research demonstrated that the Overlay standards needed updating.

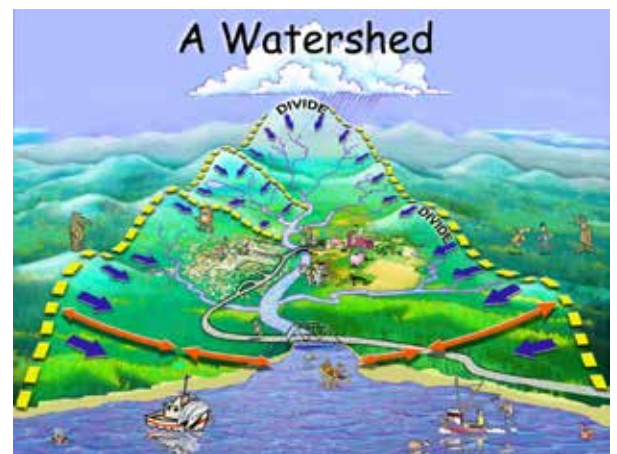
In response, the CLWA Land Use committee formed a broad working group that undertook an intensive 3-year study resulting in recommendations for strengthening the Overlay. The group included township zoning and planning officials and volunteers representing diverse interests and expertise such as engineering, biological sciences, forestry and real estate.

After immersing themselves in research reports and consulting widely with experts throughout the state, the group presented their proposals to the Crystal Lake Township Planning Commission, who provided their own input and held two public meetings during the summer of 2021. After final revisions, the Planning Commission recommended the revised Overlay ordinance to the Crystal Lake Township Board, who approved its adoption on September 3, 2021.

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Map of Crystal Lake Watershed (Sara Kirk)



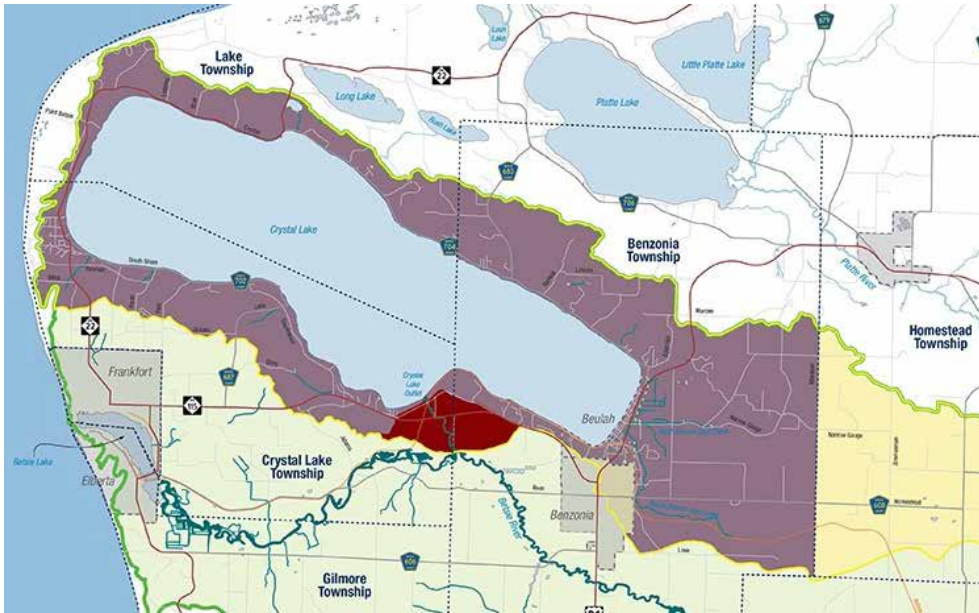
How a watershed functions (courtesy University of Colorado, Boulder)

YOU CAN ASSIST THE CLWA'S SWIMMER'S ITCH RESEARCH AND CONTROL PROGRAM BY REPORTING SIGHTINGS OF MERGANSER BROODS OR CASES OF SWIMMER'S ITCH. YOU WILL FIND THE LINK ON CLWA'S HOME PAGE, WWW.CRYSTALLAKEWATERSHED.ORG.



PROTECTING THE CRYSTAL LAKE WATERSHED FOR 28 YEARS

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Map showing Crystal Lake Watershed Overlay District (in purple)

New regulations in Crystal Lake Township

The updated ordinance places a strong emphasis on the preservation and enhancement of vegetative cover. All native growing things function as a watershed filter, removing those harmful polluting hitchhikers as the plants' long roots slow runoff before it enters the lake.

Other features of the new amendments have similar objectives of filtering and slowing runoff and preventing erosion. The percentage of a lot that can be covered with an impervious surface is reduced and setbacks from Crystal Lake are increased. There are stricter limits for construction on slopes, and new regulations apply to tree management. Vegetative buffer zones are required at the lake

shore; shoreline retaining walls and drainage culverts emptying into the lake are prohibited.

Taken all together, the updated Overlay ordinance stipulates more detailed township oversight and a comprehensive permitting process. To avoid costly mistakes, any property owner in Crystal Lake Township who is contemplating **any** project – building a deck or patio, removing trees, landscaping, remodeling, moving earth – needs to fully understand the zoning requirements **before** starting. Consulting the Zoning Administrator is strongly recommended.

While the Watershed Overlay amendments are currently only in effect in Crystal Lake Township, they are under consideration in the other administrative bodies that are part of the Overlay District – Lake and Benzonia townships and Beulah Village.

Since the objective of an Overlay District is to have a special unified approach to the protection of a unique



Looking west from uplands east of Beulah showing various kinds of land use in the watershed: forest, grassland, cultivation, wetlands, recreation, town development



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area, all Crystal Lake’s watershed jurisdictions need to adopt similar updates. Crystal Lake water pays no attention to township boundaries!

Don’t leave water quality up to the bureaucrats!

Updated ordinances provide expert guidance for the best practices to protect our environment, but all who inhabit or visit the watershed can do our part. The Michigan Department of Environment, Great Lakes and Energy (EGLE) warns: “The number one threat to lake health is land use.”

There are simple ways that each of us can improve the way we use the land of the Crystal Lake watershed. Here are some of the most effective:

1. Avoid turf grass lawns, especially close to the lake. Grass roots are shallow and don’t provide filtering. In addition, maintaining a lawn often requires chemicals and frequent watering. Grass attracts undesirable waterfowl such as geese, whose droppings add to the pollution.
2. Adopt lake healthy gardening Use native plants with long roots and avoid pesticides, herbicides and other chemicals. A vegetative buffer of this type is particularly beneficial close to the lake shore. Install rain gardens to control erosion and runoff.
3. Plant trees. Their roots increase soil filtration, and their canopies reduce stormwater runoff.
4. Reduce the amount of impervious surface. Choose materials such as pebbles and pervious pavers for your driveway, walkways, and patios.
5. Maintain your septic system. Have it inspected and pumped regularly, repaired or replaced if no longer working properly.

The CLWA Land Use committee produced a series of informative articles on best practices for watershed land use that appeared in the *Benzie County Record Patriot* during the summer of 2020. It is available as a booklet, “Stewardship for a Healthy Watershed,” on the CLWA website, www.CrystalLakeWatershed.org.



Evergreen and deciduous forest from slope on North Shore



Permeable driveway on South Shore



Native plants in rain garden and minimal mowed area on South Shore

WEBINAR ON LAKE-FRIENDLY LANDSCAPING AND EROSION CONTROL

The Michigan Shoreland Stewards Program is presenting a free webinar on Wednesday, April 13, 2022, from 2:00 to 3:00 p.m. It will demonstrate best practices for the use of shoreline property, help landowners assess the methods they are using, and provide recommendations for improving lake health. To register, go to www.mishorelandstewards.org.