



## CEDAR LAKE PROTECTION AND REHABILITATION DISTRICT

### VOLUNTEERS SOUGHT FOR INTENSE, HIGH-TECH STUDY OF CEDAR LAKE

Scientists are embarking on an intense, 3-year study to determine why Cedar Lake and other lakes with similar characteristics develop phosphorus levels two to five times greater than can be attributed to runoff.

The \$400,00 study will involve two years of collecting data and one year of analyzing and developing models to explain the results. Scientists are asking for help with the first part. The primary need is for committed volunteers to collect water quality samples at precise times, locations and intervals.

"We need five to 10 volunteers who enjoy working with scientists and the outdoors to help us for two years to complete the project," said Buzz Sorge, a watershed biologist with the state Department of Natural Resources.

These volunteers will collect samples twice a week from May through October. More details will be available at a public informational meeting at 9:30 a.m. on Saturday, April 18, 2009 at the Village of Star Prairie Community Center, located just east of the U.S. Post Office on Bridge Avenue in the Village of Star Prairie. Interested persons are encouraged to attend the meeting, or if unable to do so, contact Bob Goodlad,

Chairman of the Cedar Lake Rehabilitation and Protection District, at 715-248-7672 or Stuart Nelson, Commissioner, at 715-248-3829.

Cedar Lake is polymictic. This means it is too shallow for continuous thermal stratification but not shallow enough for deeper colder water to be continuously mixed with warmer surface water by the action of wind and waves. In deeper lakes, the thermal layers "roll over" at certain times of the year, with highly oxygenated water from the surface rotating to the lake bottom.

Unable to benefit from these features of deep and shallow lakes, the polymictic or "in between" lakes can end up with deep waters devoid of oxygen, a condition scientists call "anoxic."

The absence of oxygen - along with various chemical and ecological processes that are poorly understood - sets up a condition in which the lake "internally loads" or "self-fertilizes" with high levels of phosphorus from excessively fertilized lake sediments.

Scientists also seek to understand the process of horizontal nighttime mixing in which phosphorus is freed from shallow water sediments and transferred to deeper water where it is available to algae when sunlight penetrates the water.

"Understanding these processes is a critical part of any recovery plan," Sorge said. "This study is going to help us make better decisions on how to improve water quality in Cedar Lake."

Partners in the study include the U.S. Army Corp of Engineers, the University of Minnesota, the Polk County Land and Water Conservation Department and the Cedar Lake Rehabilitation and Protection District.

Cedar Lake was chosen, in part, because it is one of 50 lakes in Wisconsin that are a part of a long-term water quality study that began in 1986, under the leadership of the late Jack Hayes, former chair of the lake district. Because of this, there is more than 20 years of data that scientists can use in their modeling.

As part of the new study, sensitive instruments will be suspended at specific locations in the lake. Some of these, positioned 20 centimeters above the sediment, will monitor phosphorus levels and will trap and measure various forms of algae and plankton. These scientific devices will be marked by special buoys.

"There will be a tremendous amount of technology in the lake," Sorge said, "and we will be asking lake users to give these buoys a wide berth. We also will be discontinuing the operation of the lake aerator for the two year data collection period to enable us to obtain natural mixing samples."

## CLEAN BOATS, CLEAN WATERS

The Wisconsin DNR and the Beaver Creek Reserve Citizen Science Center have obtained a grant to coordinate watercraft inspection programs (known as Clean Boats, Clean Waters) on 16 lakes, including

Cedar Lake, in the West Central Region of Wisconsin. As a part of this grant, four field technicians will be hired to assist lake groups with scheduling, recruiting and training volunteers to conduct watercraft inspections at boat landings. The goal is to prevent the spread of Aquatic Invasive Species (AIS) into our lakes.

The Cedar Lake District Board has voted to support this 3 year initiative by providing either a monetary donation of \$3888, or a pledge to contribute 108 hours at \$12 annually for 3 years of volunteer time, or a combination of the alternatives. We cannot protect our lake from the consequences of AIS without your help. If you are interested in receiving training and volunteering some of your time, please contact any board member for further information.

## WATER ACTION VOLUNTEERS

Cedar Creek, the outlet for Cedar Lake, will be a water quality sampling site for the Water Action Volunteers (WAV) program. WAV is a citizen stream monitoring group that is also collecting data and change information on the Kinnickinnic and Willow Rivers. Dam keepers, Dick Hoppe and Stuart Nelson, will be collecting and testing for temperature, clarity, flow, dissolved oxygen and invertebrate analysis at the dam site. They will also be attending a full day training session at the McMurtrie Preserve.

## FISH CRIBS

Star Prairie Fish and Game, in partnership with the Cedar Lake District, built another 46 fish cribs this winter. That brings the total

number of cribs to 224. According to Marty Engle of the Wisconsin DNR, this project will install 500 cribs over a 10 year period in numerous locations in the 1118 acre lake, to provide off-shore habitat to our fishery.

You may read about the Cedar Lake Habitat Project on our website at [www.cedarlake-wi.org](http://www.cedarlake-wi.org).

## CEDAR LAKE SCHOOL TO BE SOLD

On January 10th, at a special town meeting, the residents attending voted to allow the Alden Town Board to sell the Cedar Lake School property to the Wisconsin Department of Natural Resources. On February 12, the Alden Town Board voted to sell the property to the DNR recognizing it will take some time to finalize the sale. The Cedar Lake Community Club can continue to use the property as they always have after the sale.

## CEDAR LAKE ICE CHALLENGE FISHING CONTEST

On February 14, 2009, Cedar Lake was the site of the First Annual Cedar Lake Ice Challenge fishing contest, organized by the New Richmond Coaches Association to serve as a fund-raiser for New Richmond High School Athletics. An area in the middle of the lake was fenced off, holes were drilled within the fenced area and sold to participants. It is estimated that there were 950 entrants in the tournament. The tournament winner was Mark Gjovig of Dresser, Wisconsin who won an ATV as the lone angler to catch a fish on Cedar Lake. No incidents were reported by DNR or other law enforcement persons. The Lake District Board did contact the Coaches

Association before the event and provided a letter requesting that care and courtesy be extended to the lake and its' surrounding residents during the Ice Challenge. The New Richmond Coaches Association, organizers of the tournament, took great care in cleaning up after the event.

## MCMURTRIE PRESERVE UPDATES

- Our pair of eagles have rebuilt a new nest in the same tree, after their original nest collapsed under its own weight last year.

- With the able assistance of the U.S. Fish and Wild Service, the Order of the Arrow Boy Scouts, NRHS Service Learning Day students and Star Prairie Fish and Game members the following projects have been accomplished:

- Construction of driveway, parking lot and entrance trail.
- Clearing of the Oak Savannah ridge.
- New bridge constructed on the dam.
- Installation and numbering of trail posts.
- Corresponding trail guides will be printed this month.

- Besides all of their financial support, Star Prairie Fish and Game has assumed additional responsibilities for maintenance of the Menke yard and winterization of their cabin.

- The Menke's have offered the use of their cabin for environmentally focused retreats and training.

*A sincere Thank You  
to everyone involved.*

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## ANNUAL MEETING NOTICE

**August 1, 2009 starting at 9:00 a.m.  
at the Village of Star Prairie Community Center**

The annual meeting of the Cedar Lake Protection and Rehabilitation District will be held this year on August 1, 2009 beginning at 9:00 a.m.

This year the meeting will be held at the Village of Star Prairie Community Center, just east of the U.S. Post Office on Bridge Avenue in the Village of Star Prairie.

As you can note from this newsletter, there are many initiatives to discuss and we would encourage you to attend and learn of these activities.

*Additional notice and agenda to follow.*

Visit us online at  
[www.cedarlake-wi.org](http://www.cedarlake-wi.org)

CEDAR LAKE PROTECTION  
AND REHABILITATION DISTRICT  
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