



About This Issue

This newsletter is for members and supporters of The Association for the Preservation of Clear Lake (APCL).

The APCL will begin publishing the newsletter at least twice each year.

The newsletter will focus on the water quality of Clear Lake. If you know of anyone who would like to be added to the newsletter mailing list, please call CLEAR(357-

ISU Study Shows Clear Lake Improving

The Iowa Lakes Survey has been collecting water quality information on 132 Iowa Lakes for the past three years. The study is performed by ISU and funded by the DNR. The results of the latest survey released at the end of January shows a steady improvement for the water quality of Clear Lake over the past 3 years. The first and most visible clue to the health of a lake is water clarity measured by the Secchi Disk depth. Clear Lake has increased in water clarity from 16" to 28" to 31" over the past three years. The increase in water clarity coincides with the reduction in total phosphorus levels from 129 parts per billion (ppb) to 103 ppb to 62 ppb over the past three years. Phosphorus is the nutrient responsible for algae blooms and needs to be maintained at a level less than 100 ppb. The amount of

algae (or phytoplankton) present in the water is measured by chlorophyll concentrations, which has fluctuated over the past three years at 31mg/l to 71mg/l to .

Although this data seems to be showing a definite trend in improving water quality at Clear Lake, a number of factors point to taking the data with some sense of caution. First of all, only 3 samples are taken at each of the lakes studied each year. This low number of samples could skew results because water quality parameters often change daily due to weather conditions. We have also seen some unique environmental changes in the lake over the past couple years with the high zooplankton populations.



While this data is very encouraging, we all know our work is just beginning at Clear Lake.

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Four Local Families Give Significant Gift to Clear Lake

Four local families have purchased the Miller Marsh area in hopes of protecting both the land and the Clear Lake watershed. The Cutler family, Frampton family, Schell family and Salmon family, purchased the 110-acre site last week from Jean Miller and family. The property lies just off the south shore of Clear Lake, near Dodge's Point and along the south side of South Shore Drive.

According to Cutler, "Our main purpose for purchasing this property was to prevent development and see that the land is put into conservation programs and managed in a way that will improve the lake's watershed." The Iowa Natural Heritage Foundation (INHF), a nonprofit conservation organization, has been helping the buyers develop conservation strategies for the property.

Like other wetlands, Miller Marsh helps filter sediment and farm chemicals from water entering

the lake. The new owners intend to not only protect the existing marsh but to significantly increase its size and restore native plants for even more water quality benefits.



"I think this is really one of the more significant acquisitions in the Clear Lake area, with its double impact of scenic beauty and direct impact on water quality," said buyer George Frampton. David Knoll, CLEAR Project coordinator, agrees. "The CLEAR Project has been hoping to develop wetlands around the watershed, and this one was a priority, both as an existing wetland and one that could be enhanced. If this wetland had been filled in or developed, we'd have lost the current benefit it's providing, along with the enhanced protection planned by these conservation buyers. It's exciting that these local residents are interested in the restoration of Clear Lake and are willing to make

Phosphorus Management Demonstration Plots Yield Good Results

This spring and summer the CLEAR Project and ISU Extension installed research plots to determine if additional phosphorus (P) fertilizer was beneficial to crop yields depending on soil test P levels.

Two local farmers were paid a small incentive to install the 10 acre plots. The plots were divided into strips and the soil was tested in each strip to determine levels of available soil P. The strips were then each given the same rate of nitrogen application but the P application was varied. Some strips received none, some received 50 lbs and some received 100 lbs. These three applications were replicated in the plot. The plot was harvested this fall and yields of each strip were recorded.

It was found that for the strips with low or optimum level of available soil P, there was a yield response when additional P fertilizer was applied. This was hypothesized because soils lacking P or at an optimum level of P need additional fertilizer for adequate crop growth. However, there was very little to no yield response to additional P application for the strips which already had high or very high levels of available soil P. This again was hypothesized as soils testing in the high or very high range generally have sufficient phosphorus available for crop growth. The plot at the second farm was tested for any yield response from applying a starter P fertilizer versus no starter P fertilizer to soils in the high and very high range. No yield response was found. A farmer meeting will be held



New Statewide Lakes Association - Working Together for Iowa Lakes

