Let's Keep Clear Lake Clear

Lake Association News

A newsletter for the Association for the Preservation of Clear Lake

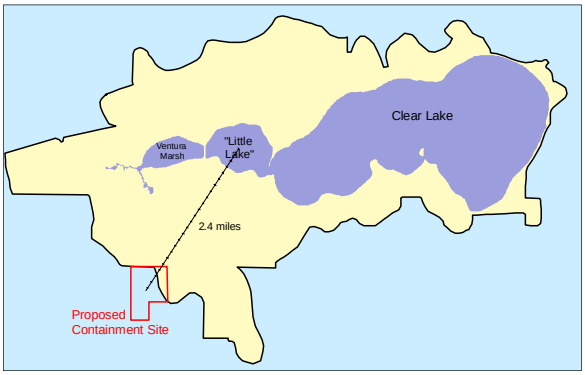
WINTER 2006

Containment Site Construction to Begin in Spring

One of the largest hurdles still remaining in the Clear Lake dredging project has now been overcome. A containment site to place the 2.3 million cubic yards of sediment removed from Clear Lake has been secured due to a partnership between the Lake Association and the IDNR. A contract to construct the site has also been awarded with an expected completion date of August 31, 2007.

Lake Association leaders began working with local landowners and the IDNR to find a suitable location for the dredged material about a year ago. A preferred site was located last summer and the landowner was interested in selling the property. The property was appraised and the DNR Natural Resources Committee approved to pay the $656,000 appraised value of the 208 acre tract in December. The Lake Association provided additional funds to the landowner to pay the agreed upon final cost. The design plans were then finalized and a construction bid was let. The bids ranged from the accepted low bid of $673,000 by CJ Moyna & Sons from Elkader to over $1.2 million. Construction plans consist primarily of building a 12-15 ft. berm around the perimeter of the site and two interior berms to create a three cell system to store and treat the dredged material.

A common question that has arisen regarding the dredging containment site is will it smell bad? Although each containment site is unique, there have been similar dredging projects that have been completed that can help answer that question. Storm Lake officials fielded questions from several concerned residents when their containment site was built directly across the road from a developed area. Residents were concerned with mosquito and odor issues. At Storm Lake, odor has only been noticeable within 10 ft. of the discharge pipe into the containment site. Similarly, the DNR has not received any odor complaints about the Crystal Lake dredge containment site when dredging took place this past fall. The aesthetics of the containment site is also less objectionable than many people may envision. During dredging, the containment site looks basically like a turbid lake. After the project is completed, the IDNR will retain ownership of the property, and current plans are to seed the parcel to native vegetation to serve as a wildlife area.



FEATURE PROJECTS

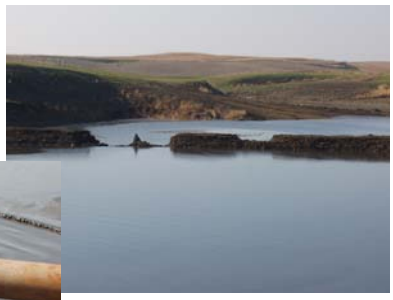
INVESTIGATION COMPLETED AT 12 STORMWATER OUTLETS

The CLEAR Project has been working with local governments to install storm water improvements since 2001. The goal is to make improvements to all outlets that have a drainage area of 5 acres or more. The number of outlets fitting this description is 30. To date, 15 outlets have been modified to reduce contaminant loading to Clear Lake. An additional 12 sites are being investigated this winter by Veenstra & Kimm to determine cost effective treatments at those locations. It is expected that 5 or 6 of the outlet sites will be modified in 2007, bringing the total number of improvements to 20 and allowing the project to reach 2/3 of its goal. Funding from the City of Clear Lake, Cerro Gordo County, Hanson Foundation, and from federal and state grants, has allowed these projects to take place. Grants will continue to be applied for until all 30 of the major outlet sites have been investigated and/or improved.

Pictures from Crystal Lake Containment Site

Above: Pipeline carrying dredged material from Crystal Lake to the containment site.

Below: Discharge pipe emitting dredged material from Crystal Lake to the containment site.



Above: The containment site during dredging in fall of 2006 at Crystal Lake. A dike separated the site into two basins.

FEATURE PROJECTS

IMPROVEMENTS AT VENTURA GRADE

The IDNR recently let the bid for further improvements at the Ventura Grade (former Harbor Inn site). The work will include constructing a shelter house, restroom and benches on the property. An educational kiosk is also being developed and will be constructed at a later date. A 16 space parking area (below) was constructed in 2006.

MEMBERSHIP DRIVE UNDERWAY FOR LAKE ASSOCIATION

We would like to increase our membership! Please let others with lake restoration interests know about us and encourage them to become members. Visit www.clearproject.net/apcl.htm

Coping with the Cold - How do Fish Survive?

Winter can be a stressful time for fish, particularly in shallow lakes. Fish are most vulnerable during long winters with abundant snowfall. Let me explain what happens.

All fish require oxygen to survive. Oxygen will decline in lakes when ice cover seals the water surface from direct contact with the air. Heavy snow cover increases the problem by reducing light penetration needed for algal photosynthesis. If these conditions persist over an extended period of time, oxygen levels will slowly decline throughout the winter. If those levels reach critical levels, fish kills can occur. This phenomenon is frequently referred to as winterkill.

Shallow, nutrient rich lakes are more susceptible to winterkill because they often have a thick organic substrate which creates a high metabolic demand for oxygen. In addition, shallow bodies of water have a small storage capacity for oxygen. When snow cover is heavy and persists for long periods, the oxygen can become depleted.

Fish vary in the minimum values of oxygen they require for survival. Because of this, winterkills rarely kill the entire fish

population. Generally sport fish, like the walleye pictured above, are more sensitive to low oxygen levels than carp or bullheads. Following a winterkill, the surviving adult carp and bullheads spawn successfully and develop an unusually strong year-class because of the absence of predatory fish. These undesirable species become dominant and can cause extensive water quality problems.

Winter aeration is one technique that has proven to be effective in reducing or preventing winterkills. There are many aeration devices, but the most common is a mechanical motor that blows compressed air through a pipe near the bottom and brings slightly warmer water to the surface. The opening in the ice allows direct contact between water and air and also allows light penetration. This system has been used successfully on Clear Lake over the past 20 years and many other lakes throughout the Midwest.

Despite the recent cold and snowy conditions, oxygen levels remain good on Clear Lake for 2007. The late arrival of winter has shortened the winter season considerably and problems are not anticipated on any of the lakes throughout northern Iowa. Article submitted by Jim Wahl—IDNR Fisheries Biologist.

Clear Lake Improvement Funding Update:

An additional $2.5 million is needed in State funding for both fiscal year 2008 and 2009 to complete the dredging project funding. The $2.5 million for Clear Lake was included in Governor Culver's 2008 budget that is now being reviewed and revised by the legislature. Friends of Clear Lake has taken two trips to the capitol building and made presentations to two committees. Additionally, the $1 million private fund raising goal is close to being accomplished. About $920,000 in pledges have been made so far.

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