CLEANING UP DIAMOND LAKE

DIAMOND LAKE TMDL PROJECT FUNDING

Diamond Lake is a 1,607 acre lake, located in east-central Kandiyohi County. The primary water quality problem in Diamond Lake is that it fails to support the designated use for aquatic life and recreation due to excess nutrients. Excess nutrients (e.g. Phosphorus) lead to an increase in algae, invasive undesirable rooted aquatic plants (e.g., curly leaf pondweed), and reduced water clarity. The water quality of Diamond Lake does not meet the standards established by the MN Pollution Control Agency for a deep lake within the North Central Hardwood Forest Ecoregion.

ALGAL BLOOMS, DIAMOND LAKE, SUMMER 2015.

Diamond Lake area partners are making significant progress towards reducing phosphorus loading to Diamond Lake by completing implementation activities including:

1. **Diamond Lake Connection to Green Lake Regional Wastewater Treatment System:** Septic systems can directly or indirectly affect the quality of Diamond Lake via subsurface flows, if the systems are aged and failing (meaning it is leaking), have inadequate separation between the treatment systems and the underlying groundwater and are located within soils such that the leachate can move horizontally toward and reach Diamond Lake.
2. **Macrophyte Management to Control Curly Leaf Pondweed:** Another source of phosphorus to the lake is the annual growth and summer die-off of curly leaf pondweed, which can result in algal blooms.
3. **Upstream Lake Management to Achieve Clear Water States within Schultz, Wheeler, and Hubbard Lakes:** Focus will be on the management of "rough fish" and primarily carp populations. The fish barriers between Diamond Lake and Hubbard Lake isolate the carp population. A gravity flow water level management system from Schultz Lake to the outlet bypassing Diamond Lake is in progress for construction. This structure will lower the water surface elevation of these lakes to induce a winterkill as a means of controlling the carp population.
4. **Public Information and Education:** Some phosphorus load reduction may be achieved by changing the behavior of residents within the drainage area contributing runoff to Diamond Lake. Behaviors that can be changed include the use of no-phosphorus fertilizers, the proper disposal of yard and animal waste, the implementation of buffer strips adjacent to the lake, and disconnecting impervious surfaces.
5. **Agricultural Conservation Practices:** A broad range of Agricultural Conservation Practices (ACPs) can be used to reduce the amount of phosphorus entering Diamond Lake through wetland restoration, water and sediment control basins, side inlet controls, saturated buffers and buffer strips.

The Middle Fork Crow River Watershed District has cost-share available to implement projects that will not only benefit their property, but the entirety of the sub-watershed and lake. Please call or stop by the MFCRWD office for more information about this opportunity.

$111,000 total grant dollars available!

COST-SHARE ELIGIBLE AGRICULTURE CONSERVATION PRACTICES:

- buffers
- wetland restorations
- alternative tile intakes
- ditch bank side inlets
- sediment basins
- animal exclusions