

CAPITAL IMPROVEMENT PROJECT

HUBBARD, SCHULTZ, AND WHEELER CHAIN OF LAKES PROJECT

The approved Total Maximum Daily Load (TMDL)* study for Diamond Lake recommended a project to improve the water quality in the Hubbard, Schultz, and Wheeler Lake chain. An estimated 74% and 83% of the total phosphorus entering Diamond Lake from surface runoff in 2008 and 2009, respectively, came from the chain of lakes. *TMDL is a calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards.

In 2011, Ducks Unlimited partnered with the Middle Fork Crow River Watershed District and the Diamond Lake Area Recreational Association to investigate the feasibility of actively managing water levels on the Hubbard, Schultz, and Wheeler chain of lakes to enhance their condition and for the combined purposes of improving wildlife habitat and water quality. Much of this feasibility work was completed with funding from Minnesota's Outdoor

Heritage Fund as recommended by the Lesard-Sams Outdoor Heritage Council.



The project is envisioned as a cooperative action of the MFCRWD, Minnesota Department of Natural Resources, and Ducks Unlimited for the construction, operation and maintenance of water control structures to allow for temporary draw-down of the lake chain. Through temporary water level draw-downs, basin sediments are exposed, consolidated, and aerated to allow rooted aquat-

ic plants to germinate from natural seed banks that absorb nutrients and help anchor bottom sediments. Through active water level management, shallow lakes can be managed to persist in a clear water healthy condition, whereas deteriorated, turbid water conditions provides



little benefit. Just as fire maintains the health of native prairies, we know through science that shallow lakes and wetlands require periods of low water or droughts to stay

healthy, productive, and beneficial for water quality, waterfowl, wildlife species, and humans as well. High stable water levels, excessive nutrient inflows, invasive fish, and the lack of natural fish winterkill have led to the loss of aquatic vegetation and invertebrate populations, both of which are key elements to a healthy shallow lake system. Essential to improving the overall health of these lakes is our ability to actively manage water levels.

Moving forward, Ducks Unlimited and the Minnesota Department of Natural Resources will continue working with the Middle Fork Crow River Watershed District, the Diamond Lake Area Recreational Association, and other partners to construct the project. Questions? Email Margaret: margaret@mfcrow.org



Photo source: TwinCities.Com and Ducks Unlimited

