

SAUK RIVER WATERSHED DISTRICT NEWSLETTER

OSAKIS LAKE PROJECT

Preserving & Protecting Osakis Lake

Streams are the major source of water for Osakis Lake. With this incoming and changing water supply are excessive nutrients and a high volume of water.

Lakes that receive the majority of their water from streams often see changing water quality parameters; e.g phosphorus, nitrates, transparency, and total suspended solids.

Due to the rapid water exchange (quickly entering and exiting the lake) seen in stream fed lakes, nutrients are allowed to be flushed out of the lake rather quickly. However, lakes with numerous tributaries and only one outlet tend to retain nutrients for longer periods of time.

To decrease the nutrient levels in



Osakis Lake, it is most beneficial to decrease the nutrients entering the lake rather than treating the nutrients already in the lake.

Osakis Lake water quality is directly affected by the amount of run-off coming into it from its watershed. Run-off includes the water entering the lake via storm drains, lakeshore

property, feedlots, septic systems, and drainage ditches.

The first step in protecting the lake from inorganic and organic materials is to evaluate and manage human activity within the watershed. Once "buffer zones" are established and nutrient and sediment levels are decreased, water quality improvements within the lake will be evident.

The Sauk River Watershed District has funding available, both grants and 3.5% interest loans, for equipment and projects that will enhance water quality. Call today to see if your project qualifies 320-352-2231.

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What Is The Sauk River Watershed District?

Water Quality is important to everyone for differing reasons. Throughout the year, water quality is monitored by local, state, and federal agencies and volunteers with a common goal: **to protect, preserve and improve water quality for today and tomorrow.**

"Watershed districts are local units of government that work to solve and prevent water-related problems. The boundaries of the districts follow those of a natural watershed (an area of land in which all water drains to one outlet), and the districts are usually named after that watershed."

"Because water does not follow politi-

cal boundaries, it makes sense to manage natural resources on a watershed basis. This type of management allows for an overall, holistic approach to resource conservation. Water management on a watershed basis is important for uniform and effective controls, not only to correct problems, but to prevent them."

The goal of the Sauk River Watershed District is simple: **to preserve, protect and improve the water** quality within its watershed. Since the SRWD was formed in 1986, it has proven that water quality improvements are achievable

when the organization works with individuals land owners, local groups/clubs and water related agencies.

"The purpose of a watershed district is to coordinate all water management decisions in the watershed. The district is governed by a board of managers appointed by the boards of county commissioners".

For more information on your watershed district, call 320-352-2231 or visit www.mnwatershed.org, www.saukriver-watersheddistrict.org.

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524 Fourth Street South Sauk Centre, MN 56378 (320) 352-2231
Saukriver-watersheddistrict.org

Reaches Of Sauk River On State's TMDL List (MPCA)

Reaches of the Sauk River are on the State of Minnesota's Total Maximum Daily Load list (TMDL). Total maximum daily load is the "maximum amount of a pollutant that a water body can receive and still meet water quality standards".

The federal government requires states to publish an updated

TMDL list of streams and lakes that are not meeting their designated uses because of the excessive pollutants in the waters. The strategy is to restore the lakes and streams on the TMDL list to "state standards by using monitoring and assessment programs". The state will work on local TMDL's through the watershed district.

The federal government believes states need to protect their lakes and streams in order to "maximize their contributions to the state's economy and quality of life and protect them as a resource for future generations".

For more information on TMDL's log onto the MPCA web site www.pca.state.mn.us.



Water Quality On Osakis Lake Through The Years

The primary focus of the Osakis Lake Watershed Management project was to prevent the lake from further degradation and to improve or maintain its current condition by addressing the problems within each sub-watershed.

The Sauk River Watershed District (SRWD) and the steering committee created goals at the beginning of the Lake Osakis project to improve water quality. The short term goal for the Osakis Lake Wa-

tershed Management Project was to reduce average epilimnetic (top layer) total phosphorus levels to less than 50ug/L (from 62 ug/L). The long term water quality goal is to achieve average summer Total Phosphorus concentrations of 25-30 ug/L or less. The transparency goal for Osakis Lake was to maintain a summer average of 6+ feet.

Osakis Lake was measured for Total Phosphorus concentrations and transparency levels during the open water season of 1995- 2001.

The summer transparencies have reached the desired level of 6' (Graph 1). The total phosphorus levels have met the short-term goal (Graph 2) but human practices need to be evaluated to reach the long term goal of less than 35 ug/L. The fluctuation in the TP levels seen from 1998 through 2001 is associated with the wet to dry climate conditions and internal loading associated Dissolved Oxygen changes.

