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SPRING 2002

SAUK RIVER CHAIN OF LAKES NEWSLETTER

SAUK RIVER WATERSHED DISTRICT

Sauk River Chain of Lakes in 2001

The Sauk River Chain of Lakes experiences an influx of visitors each year. While this is good for the economy, the lakes in the area have a difficult providing good water quality levels.

Over the years, sites on several of the chain of lakes were monitored monthly during the open water season and tributary sites were visited bi-monthly and after each rainfall event.

The water quality of streams and creeks is important to the overall environment and appearance of the lake they empty into. Especially when streams are the major source of water for the lake. With the incoming high volume water supply, excessive nutrients (i.e. phosphorus/nitrogen) and pollutants are carried into the lake.

One of the most important measurements taken throughout the year is total phosphorus (TP), which is an indicator of water quality. This key element is linked to nuisance algae growth and weeds in the lake.

Total phosphorus enters the lake water in many different ways by both natural and human induced measures. For example: decomposed vegetation and animal remains, spring and fall turn-over, and animal wastes are natural carriers of phosphorus, where as run-off from lakeshore lawns, farm-

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Special points of interest:

- **Community Education Class scheduled for**
- **Loan and Cost Share Dollars available for projects bettering water quality within SRCL Watershed for both Agricultural and Lakeshore improvements. Stop in or call the SRWD to apply.**
- **Phosphorus– free fertilizer available, ask at stores and protect water quality!**

Sauk River Watershed District Thanks Local Volunteers

The Sauk River Watershed District (SRWD) would like to thank local volunteers for their participation in the 2001 SRWD monitoring program.

Volunteers are a crucial element in obtaining data during the open water season. The SRWD is able to collect more data, more often with the help of area citizens.

Volunteers help in many ways: boat drivers, secchi disc, rain guage and staff gauge readers, lake and river watchers, and many more.

The Sauk River Watershed District Thanks You! We could not have done it without you.

Inside this issue:

Monitoring Equipment Installed on Sauk River

The SRWD and Minnesota Pollution Control Agency installed new monitoring equipment along the Sauk River and it's tributaries in 2001. This equipment is primarily measuring rainfall and flow levels to determine the speed and amount of sediment entering the Lakes within the watershed.

In addition to continuous equipment sampling, the SRWD routinely visits each site to grab lab samples and various site data.

SRWD also monitors the water within Sauk River Chain of Lakes. In-lake data is collected once a month in various spots.

Data for 2001 is included in this article on page 3.

Monitoring resumes in Spring 2002 when the rivers are flowing and the lakes are open.

Anyone interested in learning more about the environmental monitoring program or would like to be a lake watch volunteer, please call the SRWD office at 352-2231 or Sauk River Chain of Lakes Association.

Rain Gardens Gaining in Popularity!

Rain Gardens are gaining popularity all over the nation. They are environmentally valuable and aesthetically pleasing. Landowners are attracted to rain "water" gardens because of the natural beauty they add to existing landscapes while filtering runoff from the land

Rain Gardens consists of flowers, shrubs, grasses and trees that can withstand both wet conditions. Rain garden location, size, and shape can vary from location to location. They are located on the area of property that seems to collect the most rain water. No matter what the shape or size of the garden is it will benefit the water quality in the area.

It is simple to create a rain garden. Once you find your location, and determine the shape, remove the sod and create pocket with a dip in the center to collect rainwater, run-off and snowmelt from the surrounding property.

This design filters or purifies storm water by trapping impurities like pesticides, fertilizers, oil and gas within the plants and roots in the garden while recharging the groundwater supply.

The water trapped within the rain garden, would normally travel down the street, into the storm water system, carrying pollutants with it into nearby rivers or lakes.

This common practice of direct discharge into lakes and rivers is common practice throughout the nation and its adverse effects are being seen by lake users around.

Residents along the Chain of Lakes must work to keep our lake and streams clean for social, economical, and environmental reasons.

For more information on Rain Gardens, Please contact our office.

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lands, and city streets are contribute phosphorus to the water as a result of human influences.

Phosphorus enters the waterways like this, it attaches itself to sediment and often enters and stays in the lake until these particles are flushed out. Graphs 1 & 2 reflect the total phosphorus averages for 2001-2002.

Graph 1 shows the differing phosphorus levels in the Sauk River at the Richmond and Cold Spring sites. Data suggests the chain of lakes acts like a filtering system, trapping sediment and nutrients that are coming into the lake, confining them to the water column or bottom of the lake, thus prohibiting the discharge of them into the river at the Cold Spring site.

Graph 2 illustrates phosphorus levels within the chain of lakes.

exhibits elevated levels of total phosphorus.

The first step in resolving water quality problems, once base data is collected, is to evaluate and manage human activity within the watershed. Once the nutrients and sediment levels are controlled, water quality improvements within the lake will be evident.

The Sauk River Watershed District offers grants and/or loans to people wishing to make improvements on their land to better water quality. Varying projects qualify, they include, but are not limited to, the following: septic upgrades (loan only), feedlot im-

Funds Available to Help Landowners with Shoreland Projects

The Stearns County Soil and Water Conservation District (SWCD) is seeking landowners interested in conservation projects to help area lakesheds.

The SWCD received a $50,000 Lakeshed Implementation Grant which is available to landowners who implement projects such as: lakescaping or buffers, erosion control, gully repair, grass waterways, water and sediment basins, or storm water management. The grant will help property owners implement conservation practices affecting lake water quality.

The grant money will cover up to 75% of the cost for each project; the landowner or other private funds are responsible for the other 25%. Stearns County SWCD staff will provide technical assistance for the design of the project and oversee the plan as it's being completed.

Anyone in Stearns County interested in the Lakeshed cost share can call Greg Berg at the Stearns County SWCD office at 320-251-7800 ext. 3.

Top Ten Things a Lake Resident Can Do to Improve Lake Water Quality

1. Use Phosphorus-free fertilizers
2. Stop mowing to the waters edge (leave a minimum of 10' buffer)
3. Clean (pump) your septic tank through the manhole regularly (every 2-3 years)
4. Leave aquatic vegetation in place except for swimming area
5. Make sure you have a septic system that is properly treating sewage
6. Cleanup pet waste and dispose of it
7. Keep boat oil, gasoline, and other such fluids from seeping into the lake
8. Limit the use of any lawn fertilizer or pesticide (or better yet, don't use any)
9. Keep leaves, grass clippings, fire pit ashes, trash, etc, out of the lake
10. Get involved in your lake association and township meetings to become better informed about issues that impact our lakes

(borrowed from the Wright County Shoreland Volunteers)

Water Quality Is Our Concern

Sauk River Watershed District

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WE'RE ON THE WEB!

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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 or SRWD website.

Green Lawns, Clean Lakes: You Can Have Both This Spring (Information from U of MN Extension Service newsletter)

As the days warm and snow melts, we awake to the promise of budding trees and lush, green lawns. We can't wait to get out with the fertilizer and lawnmower. That's fine– as long as we don't overdo it.

If you're planning to use lawn fertilizer, use only what's necessary. Excessive use of fertilizer is partly to blame for green, algae-laden water in our lakes. Fertilizer in runoff feeds algae. When algae die and decompose, they deplete oxygen in the water, causing fish and other aquatic life to suffer and die.

It's a good idea to test lawn and garden soil before fertilizing. A soil test tells you exactly what type and amount of nutrients your lawn needs. You don't need to buy or apply nutrients your lawn and garden already have. Contact your county Extension Service for information about soil testing.

Measure the size of your lawn before buying fertilizer, to make sure you don't purchase (and use) more than you need. Also, look for phosphorus-free fertilizer. A fertilizer has no phosphorus if the middle analysis number on the bag is zero. For example, fertilizer with an analysis of 10-0-10 is phosphorus-free. In most cases, your soil already contains ample phosphorus. Phosphorus you add contributes to water pollution

Finally, remember that anything you rake or throw into the street, beach or lake—fertilizer, leaves, sand, salt, animal wastes or soapy water, for example - may end up in your lake, river or stream shortly afterward. Those April showers become storm water runoff, rinsing pollutants into lakes or into storm drains and from there into water resources.