



The Scoop at Grand Lake

Issue 7

June 2009

Please Note

Grand Lake Improvement District (LID):

Please note that the annual meeting is the week-end before Labor Day as the LID is required to have the meeting in July or August.

We will be electing three new board members to the LID so plan to attend this important meeting.



July 4th Festivities

9:00 Flag raising hosted by the Hansen family at 10855 Mitchell Lane

3:00 Flotilla parade—meet at the former Grandview Resort

10:00 the amazing fireworks—please contribute if you have not already done so and help make these the best ever. Send a check to:

Dave Lenhardt
2828 23rd Avenue S.
St. Cloud, MN 56301

Inside this issue:

Report Card on SRWD Water Quality Monitoring Program on Grand Lake 2

Vegetation Buffers: Protecting our Shorelands and Waters 2

Aquatic Invasive Species in Minnesota's Waters—an Aquademic 3

Fishing on Grand 3

Big Birch Lake Assn: Citizen Efforts 4

President's Message—Celebrate Our Accomplishments

Ah yes. It's summer time at Grand Lake. The loons are calling, the bass are biting, and the sunsets are beautiful.

As a lake association, we have a lot to be proud of. In 2008, Grand Lake had some of the highest water clarity ratings ever recorded since we began measuring water clarity in the 1970s. Yes, we had water clarity ratings that exceeded 21 feet! 2009 looks like another good year.

As a lake association, we established sustainable funding by forming the Grand Lake Improvement District, allowing the membership to focus energies on improving water quality and not on fundraising.

As a lake within the City of Rockville, we can appreciate the ability to hook up to city sewer services that improve our water quality by putting an end to pollution caused by failing septic systems. We can also thank the City of Rockville for working

with us and the Pleasant Lake Association in establishing a shoreland ordinance that allows development while protecting our water.

The education about best management practices and available programs are making a difference. One of our friends and neighbors in the Grand Lake Association worked with the Stearns County Soil and Water Conservation District on a program to plant native grasses and 6000 trees on approximately 100 acres right across Grand Lake Road.

Take a look around and you will see a new rain garden on the north side of the lake and two shoreline restoration projects that include native grasses and wildflowers on the south side of the lake.

Have we done enough? No. The Sauk River Watershed District completed extensive water quality testing on Grand Lake in 2008. While we have made

great progress, our overall report card grade is a B-. While a B- is good, we still have work to do in reducing the amount of nutrient runoff coming from our shorelines and our watershed, and we have work to do in reducing the amount of curlyleaf pondweed that contributes to weed mats and algae. We are working hard on achieving our mission as an association.;

The mission of the Grand Lake Area Association is to restore and preserve the Grand Lake watershed, returning Grand Lake to its mesotrophic state, creating the finest lake experience in central Minnesota.

We are now on the brink of being classified as a mesotrophic lake, and when that happens, we can all celebrate and then continue with our efforts to make Grand Lake even better. If you have questions, write to me at sspalmer@clearwire.net or call me at 320-253-8191. Have a wonderful summer!

—Scott Palmer

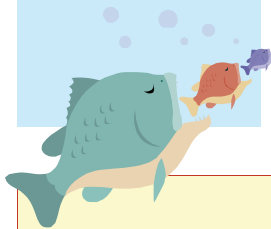
Grand Lake Improvement District to Hold Elections

Three board members will be elected to 3-year terms at the annual meeting of the Grand Lake Improvement District on Saturday, August 29th at 9:00, Rockville City Hall. If you are interested in a board position, please pick up and complete a brief application at Rockville City

Hall by Friday, August 7th. If you are not present at the annual meeting, you will still be able to participate in the election as absentee ballots, available at Rockville City Hall, will be accepted until the close of business on Friday, August 28th.

Mark your calendar for the combined Grand Lake Association meeting and Grand Lake Improvement District meeting. Saturday, August 29th 9:00 am Rockville City Hall

The efforts being made to control curleyleaf pondweed and other water quality initiatives are having a positive impact on our lake!



Report Card on Sauk River Watershed District Water Quality Monitoring Program for Grand Lake

Last summer, the Sauk River Watershed District took 6 water quality samples from Grand Lake from June 9, 2008 to September 9, 2008. The report card developed by the watershed district is intended to give us a qualitative measure of Grand Lake's water quality as compared to a) all other sampling locations within the Sauk River Watershed District and b) sampling locations that represent minimally impacted

lakes within the ecoregion.

What measures are used? The secchi disk depth is used as an indicator of water clarity. The total phosphorus concentration is used as an indicator of the level of nutrients or eutrophication. Chlorophyll A concentration represents the algae bloom present. The total suspended solids concentration is an indicator representing the clarity and general look of the

water.

The report card of Grand Lake is provided below. As you can see, our overall grade is a B—within the District. Within the ecoregion, the water clarity rating was an A reflecting the improvement in the water clarity of the lake last year. The efforts being made to control curleyleaf and other water quality initiatives are making an impact!

	Comparison to All Other Lake Sites Within the SRWD	Comparison to Minimally Impacted Lakes Within the Same Ecoregion
Secchi Depth (water clarity)	C	A
Chlorophyll A (algae bloom)	C	C
Total Phosphorus (eutrophication)	B	B
Total Suspended Solids (clarity)	B	No Data
Overall Grade	B-	No Data

Vegetation Buffers: Protecting Our Shorelands and Waters

What is a Vegetation Buffer?

A vegetation buffer is an unmowed area of land that separates a lawn from a lake or river. It might be planted with vegetation or it can simply be an untouched area left to grow naturally.

What are the Benefits of Vegetation Buffers?

Vegetation buffers help protect water quality by reducing erosion, stormwater runoff, and nutrients that enter the water. In particular, vegetation buffers:

- Stabilize the shoreline and reduce erosion—roots of native plants run deep, helping to stabilize the shoreline by holding the soil

- Reduce runoff—the deep roots of native plants and grasses allow water to filter down into the ground and these plants help remove nutrients and pollutants from the ground by taking them up through their roots and absorbing them thereby reducing the amount that reaches the lake.
- Provide habitat for butterflies, birds and other wildlife.
- Are easy to maintain—native plants have adapted to the conditions around them, so they require little maintenance such as watering, weeding, fertilizing or mowing.

How Can I Create a Vegetation Buffer?

The easiest way to create a buffer is to select an area along the shoreline, stop mowing, raking or weeding and just let the vegetation grow naturally. This is called a *no-mow buffer*. Shoreland buffers should at least be 15 feet deep to effectively reduce runoff. Or you might choose to restore the shoreline by planting native vegetation.

For more information on this topic visit the Minnesota Waters website at <http://www.minnesotawaters.org/index.php?uberKey=200&page=3780> and go to the resource page (hold the control key and click on the link).

Fun Facts about Runoff Rates

On an undisturbed natural landscape, only about 10 percent of water runs off and the majority is infiltrated onsite, which is the optimal scenario for maintaining healthy lakes. According to the Wisconsin Department of Natural Resources, properties that have a manicured lawn planted all the way down to the lakeshore have runoff volumes 5 times more than that of a vegetative shoreline. Phosphorous volumes increase 6 times and there is 18 times more sediment entering the water body from a manicured lawn compared to a vegetated shoreline.

Aquatic Invasive Species (AIS) in Minnesota's Waters—An Aquademic Excerpts from a Position Paper and Recommendations of Minnesota Waters (Adopted 4/29/09)

How do you describe a condition where harmful polluting agents spread rapidly to new lakes and rivers, are self-replicating, and cannot be treated effectively or eradicated once they have been introduced? **Minnesota Waters calls this condition an Aquatic Epidemic — or an Aquademic.**

Aquatic invasive species are ruining our lakes and rivers—35% of Minnesota's primary recreational lakes have at least one aquatic invasive species. AIS have been in our state for more than a century (eg common carp, curlyleaf pondweed); however, their recognition as a threat worthy of special attention has occurred more recently. Our modern AIS era began with the discovery of Eurasian watermilfoil (EWM) in Lake Minnetonka in 1987. EWM has since spread to many other lakes. There are currently about a dozen species of plants and animals in Minnesota's waters that cause significant damage, and for which we have little control.

The spread of AIS is primarily cause by recreational watercraft moving to and from Minnesota's water—both within

the state, and from outside the state. Minnesota has a large number of lakes and rivers and a high per capita boat ownership and use. And our laws, regulations and culture, have evolved to allow broad use and enjoyment of our abundant water resources. Unfortunately, this long tradition of love and appreciation for aquatic activities now facilitates the spread of AIS.

Why AIS is a serious problem that needs to be addressed now:

- New AIS continue to enter Minnesota
- The number of Minnesota lakes and rivers infested with AIS is increasing
- All AIS have harmful impacts to some degree
- There are no known cases where AIS have been eradicated from a body of water once it has been introduced

AIS are responsible for several problems including:

- Ecology—AIS cause ecological damage through predation, competition, and displacement of native plants and animals

- Economy—AIS can have dramatic economic impacts, including reduced tourism and property values (eg Little Rock Lake)
- Recreation—AIS overrun desirable species, impede water access, foul swimming areas and reduce an area's aesthetic appeal

Existing prevention efforts rely mainly on education, awareness and voluntary actions. That's a good start but it's not nearly enough.

Minnesota Waters believes we are now at a fork in the road. We can continue down the same path or we can choose a better path. Minnesota Waters has several recommendation for the state to consider adopting. One of these recommendations is that a dialog be initiated among Minnesota's resource manager and policy makers to re-examine the legal, cultural and social framework that now prevents consideration of Level 3 (described in their full report) AIS management system that includes these elements: quarantine of waters, significant increases in

"Our lakes and rivers are under attack by aquatic invasive species (AIS). These aggressive, non-native organisms are a direct threat to the diversity and abundance of our native aquatic species, and to the ecological stability of our state's waters. AIS are a huge problem because our native habitats have no natural controls – predators, pathogens, or parasites – to slow or limit the expansion of AIS populations. This unchecked AIS growth can quickly overrun an aquatic ecosystem and its species, as well as a devastating impact on businesses and recreation activities that rely on them." - Harry Gibbons, President, North American Lake Management

new funding, inspection fees, providing local authorities to control accesses (while protecting public access rights).

Perhaps most importantly, we must find a way to balance the issues of access and control. Unless these concepts are on the table for discussion and evaluation, Minnesota's waters are at high risk of being permanently and irreversibly damaged.

Fishing on Grand Lake

The DNR provided a status report as of 8/18/2008 on the status of the fishery on Grand Lake. Excerpts from their report include (this was the first survey since 1998):

- Management has consisted of alternate year walleye fingerling stocking.
 - The gill net catch declined from 1998 but was still near average for similar lakes.
 - Overall, walleye ranged from 12 to 30 inches, with an average length and weight of 17 inches and two pounds. Walleye grew fast and by age two reached 14.4 inches.
 - Northern pike were caught in gill nets at a rate similar to 1998. Fish ranged from 10 to 37 inches, averaged 22 inches and 2.6 pounds. 26% of pike were 24 inches or larger.
 - A total of 65 largemouth bass were collected by night-electrofishing. Fish ranged in length from 9 to 18 inches and averaged 13 inches. Of the catchable largemouth bass (larger than 8 inches), the proportion larger than 12 inches was 75%.
 - Smaller amounts of yellow perch, bluegill and black crappies were noted as well.
- From an angling standpoint, anglers could expect good fishing for small northern pike and bluegill.



Enjoy the fishing on beautiful Grand Lake!



Scott Palmer, Chair
Bob White, Vice Chair
Paul Ludwig, Secretary
Jim Hall, Treasurer
Georjean Fischer-Fabel
Dan Klein
Terry Rothstein

Enjoy...
Explore...
Protect...
Preserve...

**The Scoop
At Grand Lake**

Minnesota Facts:

What is the largest water-based park in the National Park System?

How many counties in Minnesota have no natural lakes and what are their names?

What is the length of the Mississippi River in Minnesota?

What are the ten most common lake names in Minnesota?

Voyageurs National Park
Four counties: Mower, Olmsted,
Pipestone, Rock
Mississippi River-680 miles in
Minnesota
Mud, Long, Rice, Bass, Round,
Horseshoe, Twin, Island, Johnson,
Spring

Newsletter Editor-Sue Palmer

What are Other Lake Associations Doing?
The Big Birch Lake Association: Citizens Buffer out Nutrient Pollutants

When the members of the Big Birch Lake Association read the 1987 Minnesota Pollution Control Agency Assessment of Big Birch Lake, many were startled by the findings. The water quality was in a very grim state. The assessment found that the water quality was classified as eutrophic, and decreasing in both the lower and upper bays.

The lake association decided to take immediate action, even though they had a large task ahead of them. The Big Birch Lake Association searched for the phosphorous inputs, intending to attack one source at a time. They completed septic system compliance inspections and monitored the inputs from local streams that fed the upper bay. After observing all the inputs, they found a single source that stood out as the most significant source of phosphorous: Fish Creek. The small stream, surrounded by agricultural fields on both sides, fed directly into the bay. It contributed roughly 48% of the total phosphorous input into the lake. Although a challenging issue, members felt that this phosphorous source was a manageable task for the association to handle. They began to brainstorm possible solutions. They wanted to develop a fair and beneficial process for both the farmer who owned the land along the stream, and for Birch Lake. They knew that buffer strips had been very successful in the past preventing nutrient runoff into streams. The issue then became how to make it beneficial to the farmer. After meeting with the farmer, they drafted a proposal and sent it to him, in which they offered to pay him a quoted price to maintain 17 foot buffer strips on both sides of the stream. The farmer accepted their proposal and planted buffer strips.

For many members, this project was expected to yield longer term results but this proved not to be the case—water clarity almost immediately responded to the buffer strips. Phosphorous levels dropped significantly from 468ug/l to 95ug/l, and both the farmer and the lake association began benefiting from the contract.

This is certainly an example of a lake association doing great things in their local area and it all started with the lake residents taking action. While we have done many good things for the lake, there is more to be accomplished.