

The Lake Riley Launch

June 2010

*An email newsletter for
Lake Riley Improvement Association Members*

Lake Dates. Decorate your boat, invite your friends and family, and join our **11th Annual Lake Riley 4th of July Boat Parade!** As always, boats will meet in the west bay, and the parade will start at **12 Noon.**

The relatively early **ice-out date of March 31** this year was the result of the mild weather pattern that began in early March. Our warm weather has given us warm lake temperatures - 75° on Memorial Day.

Annual Meeting. The annual Lake Riley Improvement Association (LRIA) meeting was held on Monday April 19, presided over by President John Bushey. **Pete Lillie** volunteered to act as the new Treasurer (Hooray Pete!) Members can send their annual fees to him directly at 9355 Kiowa Trail, Chanhassen MN, 55317. Tel: 952-496-0714 Email: lilliesales@msn.com.

The motion was passed that the annual meeting can now be earlier in April. Also the motion was approved to give the U of MN Carp study a grant of \$2000 to be used at their discretion. Przemek thanked the LRIA members greatly, as this is money that can be used for all sorts of little things that arise in the course of their study, not covered by specific grants.

Watershed Activities. Perry Forster, Watershed board president, presented an update at our annual meeting on Riley Purgatory Bluff Creek Watershed District board activities:

The board is focusing on the following priorities:

- Top to bottom - addressing problems in each creek watershed from top (source) to bottom
- Issues not addressed by others - e.g. studying lake internal nutrient loading
- Fiscal stability - getting the best value for the district
- Petition projects - responding to municipal petitions e.g. Minnetonka
- Adaptive management - adapting if previous plans are not working
- Pilot to full - starting with a pilot project to see how it works before moving to big project
- Resource conservation - protecting healthy water resources
- Public communication and stakeholder participation - e.g. Evenings with the watershed

Summary of 2009

- Dredged Round Lake ponds
- Continued work on Third Generation plan, now being sent out for comment.
- Lotus Lake Outlet Analysis and Volume Control project, an effort to understand why Lotus lake levels bounce as it does after rain events.
- Fish Barrier and Invasive Species Control, coordinated with the U of MN carp study: removed carp from Lakes Susan and Riley; monitored the water quality in Lakes Ann, Susan and Riley;
- Conducted Lotus Lake weed surveys. Confirmed a link between hypolimnion oxidation reduction and the release of phosphorous from the lake sediment.
- Began to restore the native plant community in Lake Susan; removed curly leaf pondweed in Lake Lucy; harvested weeds (curly leaf pondweed) and monitored Mitchell Lake bi-weekly - Solar Bee experiment was not successful.
- Did core sample analysis to determine the lake trophic state on a decade by decade basis from 1810 to the present.
- Measured Cyanobacteria in Lakes Lotus, Ann, Susan, Mitchell and Riley.

Future Watershed board plans include:

- Removing carp from Lake Lucy. Possibly aerating Lake Lucy in winter of 2010-11 to reduce phosphorous loading which will prevent winter kill of the fish that eat the carp eggs.
- Possibly aerating Lake Ann in winter of 2010-11 using a deep linear diffuser that will bubble pure oxygen in the deep areas of the lake.
- Further experiments with oxygen in Lake Susan.
- Monitoring Lake Riley water quality for the effects of carp removal last winter; considering ideas for control of curly leaf pond weed and Eurasian milfoil.

Carp Study. Przemek Bajer presented the LRIA a comprehensive and interesting update from the U of MN carp study at the annual meeting. The following is a summary of some of his main points:

- In winter of 2009, last year, the team removed 2940 carp from Lake Riley. This year the carp removal attempt on 2/16/10 netted 376 carp. The more successful seining on 3/5/10 caught 2303 carp. From this they estimate that the total carp population in 2009 was 6062 (+/- 1250) and roughly 500 carp are left in Lake Riley.
- The carp biomass is now low enough that the carp should not cause damage to the lake. The challenge is to keep the population this low.
- They will monitor the water clarity and changes in vegetation resulting from the carp removal.
- Carp management seems sustainable given 3 things:
 1. removing adult carp (tracking winter aggregation & seining)
 2. blocking access to shallow lakes for spawning (proper fish barriers; vigilance during rain events)
 3. strengthening native fish predators of the carp eggs by preventing winter kill (aerating marshes) and promoting reproduction (allowing them through barriers to shallow lakes for spawning)
- The experimental barriers were checked daily from April - June 2009, then weekly. With backpack electrofishing they were able to stun the fish for 50 m on both sides of the fence. The fish were counted and measured.
- The experimental barriers seem to be working - keeping the carp from moving from Lakes Susan and Riley into Rice Marsh Lake for spawning. It is also keeping the fish from the Minnesota river. Managing carp in Riley will help the lakes upstream, as this is a source for the whole watershed.
- From monitoring the barriers they found that native fish species have similar movement and life cycles, but at slightly different times than the carp. The carp movement closely followed significant rain events.
- The U of MN carp study has applied for more grants to fund their research for several more years.

DIY Lake Weed Herbicides. David Florenzano was asked to do a comparison of some DIY lake weed killers at the LIRA annual meeting. This is what he reports:

"I used the 50# bags to compare, because that's where the cost comparison seems most direct. Many shorelines may only require 10-20# of AQUACIDE, but you can store it for future use or share it with your neighbors. I have used AQUACIDE pellets and I can recommend them. I will compare them to NAVIGATE as they both appear to have the same active ingredient (2,4-D), but in different concentrations. I have not used NAVIGATE, so I can't comment on it. Please read the instructions and restrictions on both products.

[AQUACIDE](#)

- 50# bag \$299 +tax delivered. Shipping UPS is free from Aquacide in White Bear Lake, MN.
- A 50# bag will treat 21,780 square feet so your cost will be \$13.73 per 1000 square feet.
- If you are going to share, ask them to include an empty 10# can so that you can measure.
- My suggestion is to float over the area to be treated in a small boat on a calm, quiet day and drop the pellets sparsely. Indiscriminate tossing of the pellets will usually result in over-application (this stuff is expensive and you don't need to use much.)

[NAVIGATE](#)

- 50# bag \$191 +tax. Shipping is \$26.50 or can be picked up from Midwest AquaCare in [Chaska](#)
- A 50# bag will treat 14,706 square feet so your cost will be \$13.58 per 1000 square feet if you pick it up in Chaska.

A permit is legally required for the use of herbicides on lake weeds. The application is [online at the DNR](#) and the fee is \$35 - the same charge as is passed on by Lake Restoration. There should be no trouble getting these permits. John Bushey and I have noticed that treatment with the AQUACIDE pellets seems to be focused, staying put on your shoreline rather than floating over and affecting your neighbor's property. One application is often enough for the whole season, so it ends up being a fraction of the cost of the commercially applied liquid."

Fishing. "The charm of fishing is that it is the pursuit of what is elusive but attainable; a perpetual series of occasions for hope." ~John Buchan

This e-newsletter is published in March, June, September and December.

If you have questions, comments or ideas - or if you need to add or update an email address - please contact Anne Florenzano at 952-937-5354 or anneflorenzano@gmail.com