

Minutes from the Lake Riley Improvement Association (LRIA) 2011 Annual Meeting

Date: Monday April 18, 2011

Time: 7 - 9 pm

Location: City of Eden Prairie Town Hall

Lower level

8080 Mitchell Rd.

Eden Prairie, MN 55344

John Bushey, president of the LRIA, opened the meeting and made introductions.

Minutes The 2010 meeting minutes were approved as written.

Reports Pete Lillie presented the Treasurer's report:

4-2010 Ending Balance \$5,992.44

There is a little additional money in a savings account as well. Mike Domke will work with Pete Lillie to get control transferred to Pete.

John presented current lake measurement data.

- The data continues to show that the lake levels are much more stable since the new culvert was installed at the outlet.
- Water clarity data: it is disappointing that the lake wasn't more clear after the carp removal.
- The Metropolitan Council Citizen-Assisted Monitoring Program (CAMP) data has not been updated for 2010 yet, and still reflects the 2009 grade of "C" before carp removal took place. <http://www.metrocouncil.org/environment/riverslakes/Lakes/index.htm>

Water Quality Invasive Species Project - Update by Dr. Peter Sorenson

Dr. Sorenson presented a comprehensive and interesting update from the U of MN carp study. The following is a summary of some of his main points:

- In winter of 2009-10 they think they captured about 90% of the carp in Lake Riley. After this winter 2010-11 they've gotten most of the carp throughout the watershed. They have been monitoring fish movement through the barriers and have seen no carp, which leads them to believe they really have them under control. *This is probably the first time this has been achieved.*
- *Why was there not more water clarity improvement last summer?* Lake Susan water clarity improved greatly after the removal of carp. Did it not have the same effect on Lake Riley because the lake is much bigger? Data shows that the phosphorous level in Riley is not very high in the summer, which suggests that the water *should* have been clearer than it was. This leads to 2 possibilities:
 1. Too many nutrients (phosphorus) in the water, either
 - A. Internal (from plants, previous sediment) or

- B. External (from land runoff)
- 2. Loss of predators
 - A. Zooplankton - possibly from loss of submerged native plants
 - B. Unbalanced native fish population - possibly from overfishing

This has led to 3 questions:

1. Is there more phosphorus in the lake than we think?

To find out, the team is collecting data year-round. The data from the past fall shows that the phosphorus levels climbed dramatically in the fall, to about 3x the summer level, and stayed high during the winter. This was unexpected, and might be explained by internal phosphorus from our own sediment on the lake bottom being dispersed when the lake turns over when the water temperature drops. This could contribute to poor water clarity.

2. Is there a lack of beneficial zooplankton?

Daphnia and Milfoil Weevils are two examples of beneficial zooplankton. Daphnia eat algae. High levels of Daphnia can have a dramatic effect on reducing algae. Milfoil Weevils control milfoil, and in Lake Susan they do a good job of controlling the milfoil. The team is collecting zooplankton samples to investigate if there is a correlation of low levels in Lake Riley to the continued presence of algae and milfoil, which could also contribute to poor water clarity.

3. Is there too much predation on zooplankton?

If Lake Riley lacks beneficial zooplankton, it is possible that the native fish population is unbalanced. There could be way too many small sunfish, bluegills and crappies eating the zooplankton. Does fishing remove too many of the predators to the small fish, and remove too many of the older, larger panfish? It is possible that the small fish play a pivotal role in the health of the lake. To find out, the team is embarking on a year-round "creel" survey (a fishing survey) to determine: what is the present harvest of fish? How many panfish are there in the lake? What are their sizes, ages? What proportion is being taken out by fishermen? Can these fish, too, be managed? The creel survey will be done by 2 undergraduate students from the University of Minnesota. They will survey the lakes 3 days/week and most weekends. The anglers will be counted at random times, and data on the catch rates and sizes will be collected.

What are the next steps for creating better water quality

- Can we balance the fish population, decreasing the number of small panfish that eat Daphnia and Milfoil Weevil-
 - by stocking bass to help keep the small fish population down?
 - by passing special fishing regulations? It would be very new to do this for water quality, which is why the creel survey data will be so important.
- Should an alum treatment be considered, which locks the phosphorus into the sediment?

Data collected on phosphorus levels, zooplankton levels and the creel survey should help determine the course of action next year.

Weed Control Options

Four different ways of controlling weeds were discussed:

- Commercial Chemical (Lake Restoration)
- Individual Chemical (Aquacide pellets)
- Mechanical harvesting (cutting and pulling)
- Weed roller

Ken Wencil demonstrated his “Big Butcher” V-cutter that can be pulled behind a boat. He is selling them to those interested.

Walleye Stocking

Mike Domke reported that in 2009 we did not stock any fish, and in 2010 we spent \$2,500 on 3,500 walleye that were released in several areas of the lake. Mike got the fish from a new source, Rademacher Farms in Waconia. Considering the information about panfish from Dr. Sorenson, stocking Bass might be a good idea for this fall, and he will check on what options we have. A motion was made and passed to have Mike coordinate with Peter Sorenson and the LRIA board to determine what fish to stock this year.

Zebra Mussels

Anne Florenzano reported on the public meeting held by the Minnesota Waters organization on April 14 at the Chanhassen Recreation Center about Zebra Mussels. First to speak was Steve McComas, an aquatic biologist. He said that zebra mussels arrived in the U.S. in the late 1980’s. They are native to the Caspian and Black Sea area, and were brought to the Great Lakes via ballast water from cargo ships. They were discovered in Lake Zumbro in the mid 1990’s. Zebra mussels can now be found in more than a dozen Minnesota lakes, including Lake Minnetonka, plus the Zumbro, Rum, St. Croix and Mississippi rivers. An intensive survey of Lake Minnetonka last year revealed that zebra mussels are in widely dispersed areas throughout the lake. Zebra mussels look for substrate to grow on - anything metal, rocks, sticks. They will form clumps when breeding on silty, mucky bottom. They feed on alga and bacteria, and exist all the way down to the depth of the lake where they still have oxygen and food to survive. Each mussel filters a quart of water per day, so they make the water clearer, but not necessarily “cleaner.” Their presence creates thicker filamentous algae growth because of the waste they produce. Lakes in the southwest metro area were checked, and they all would support substantial colonization of zebra mussels. The zebra mussels are in expansion mode in Minnesota, and once they get in a lake they are impossible to eradicate. The Minnesota DNR has page on [zebra mussels](#) for more information. McComas cautioned that after zebra mussels, there are more invasive species that could be even worse in the future.

Luke Skinner from the Minnesota DNR spoke next on prevention. He said that the zebra mussels are prolific: they suffocate and starve the native mussels; they filter out the base of the food chain, taking food from small fish; they impede recreation; they block intake pipes. They move between lakes on equipment, in water and on vegetation.

Ways to prevent the spread of zebra mussels are: regulations; enforcement; inspections; public awareness; grants. The drain-plug law and the law against transportation of aquatic plants will greatly help reduce the spread. The DNR will continue to try to get laws passed with higher fines for infractions, more authority and funds for inspectors to check boats.

Last to speak was Eric Evenson from the Minnewashta Watershed District. To combat the threat they are advocating for monitoring and scientific research; citizen and lake association involvement in the issue; education of the public; policy research; water management plans and possible regulation; and grants. The meeting was over.

After Anne's recap of the Minnesota Waters meeting, Bob Adomaitis then spoke to give perspective on the problem. He grew up on a lake in Indiana that has been colonized with zebra mussels for many years. He said it is "not the end of the world." Everyone automatically wears water shoes, to keep their feet from being cut by the shells. The lake is clear, and they have learned to live with it. It is a full recreational lake which is still enjoyed despite the mussels.

LRIA: The early years

Betty Ann Kirtland and Jo King took part in creating the Lake Riley Improvement Association and its bylaws in 1969. They shared some photos and stories from the early years of our group.

Elections

The bylaws state that all terms are for 2 years. Odd year elections include President, Sec/Treas and odd numbered districts; other elections in even years. Mike Domke was elected president. Linda Nolan was elected vice president. Pete Lillie will continue as treasurer and Anne Florenzano will continue as secretary.

The District Representatives will remain in place for their zones:

- 1 - John Bushey
- 2 - David Florenzano
- 3 - Eduardo Fernandez and Eldon Berkland
- 4 - Norm Kruse
- 5 - Dennis Mills and Dick Chadwick

Other Business

- Beth Halvorson will call the Fire Department to see if the Fire Boat will again participate in our 4th of July Parade. As always, for the parade on July 4th, all boats will gather in the bay and the parade will start at noon.
- There was discussion of an alum treatment. Alum is a derivative of aluminum. It binds with phosphorus and sinks to the bottom of the lake, keeping the phosphorus there and keeping the water clear. The treatment might last for 5 - 10 years. A motion was made and passed for the LRIA board to work with Pete Sorenson and our Watershed District Board to determine what the cost is of an alum treatment, what is involved in the treatment, what are our options in having it done, what is Pete Sorenson's assessment of alum in light of the data he collects, and then possibly the board can petition the watershed to have it done.

At approximately 9pm John adjourned the meeting.

Submitted by Anne Florenzano 5/30/11

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