LRIA 2013 Annual Meeting
Tuesday, April 23, 2013
Chanhassen American Legion 7pm

President Mike Domke brought the meeting to order.

2012 Annual LRIA Meeting minutes approval:
Motion was made and seconded, minutes approved.

Treasury Report from Pete Lillie:
Balance as of 4/23/13: $8,433.58
2012 dollars received: $2,815.00
Fish fund: $1,235
Dues (81 members): $1,620.00
Membership numbers: 2001: 57 members...2012: 81 members.

Fish stocking report from Mike Domke:
Started stocking in 1997 with Walleye. 2012 first year put in Perch (3000 3-6")
Will reproduce in this lake. Think the ones we put in this fall will reproduce this spring.

Lake Riley Improvement Association Board Members:
President: Mike Domke
Vice President: Linda Nolan
Secretary: Anne Florenzano
Treasurer: Pete Lillie - Shelly Manning is taking over for treasurer.
Motion was made, seconded, and Shelly was voted in.

Ice Out Chart:
Mike Domke showed the latest ice-out was on April 26 (1970s). This is first time in memory that annual meeting was held while lake still frozen.

Water Clarity/Temperature:
John Bushey has 20 years of data (handout.) David measures for CAMP citizens monitoring program (handout.)

Open Discussion:
- Loons arrived 2 days ago.
- Riley Creek is running. Water level has come way up this winter.
- Mike has been very active with other associations participating in meetings about boat inspections for AIS.
- Need drainage pond on bay. Lake association can apply to watershed district for funds for drainage/settling pond. Application at Rileywd.org. Conservation technician will come to site to consult, make assessment, draw up plan.
- Last maple syrup boil tomorrow night! A great year for syrup for Riley Sugarbush.

Watershed District Overview - Clair Bleser, District Administrator of Riley Purgatory Bluff Creek Watershed District:
Have removed and managed carp and have been assessing the plants and fish. Now looking at invasive plants and at reducing phosphorus. Riley is close to meeting water quality standards, but we want to restore native species.

Brief recap of how we got to this point: This winter we came up with plan with weed committee and University of Minnesota, using survey results from the LRIA to help determine next steps. Decided to work on managing curly leaf pondweed to help give natives a chance to grow. Possibly in future want to do alum treatment.
Presented this information and proposed plan in meeting to this lake association in February, and there was great buy-in from residents to do a lake-wide treatment for curly leaf pondweed - 70% that we know of joined in support. Took signatures and wrote up lake weed management plan (Ray Newman from the U of M was very instrumental) presented it to DNR, & got grant from DNR to help with this. Plan was accepted. The watershed has a grant for 1 herbicide treatment, early, of Endothall, to help control curly leaf pondweed. Lake restoration will be applying, U of M will be helping monitor, to maximize potential of treatment. Late ice-out means curly leaf probably won't be as prolific as last year, but there still are the turions in water from curly leaf of past years.

In answer to a question about quality of water/phosphorus running into Lake Riley:
Riley creek goes thru golf course. Used to go thru farm fields - is better now than then! Golf course has to do testing on runoff to comply with standards. City of EP is doing walk-thru of creek, & interns will be doing assessment for 2014 because of work on whole chain of lakes.

Ray Newman Prof. from University of Minnesota Dept of Fisheries, Wildlife and Conservation Biology. His intern John Jaka was in attendance also:
When ice goes out the U of M team will go to spots where there was a high density of curly leaf pondweed in 2012 and do survey. That's where they will treat to control this spring. Because of data from last year we know where to concentrate this year for treatment. Should not damage native vegetation because treatment is early in the season before the natives are growing.
Will determine if need to treat for curly leaf again next spring.
Endothall is the herbicide that will be used- breaks down pretty quickly. Herbicide will disperse over range of 3-7 days - the cooler the water the longer before degradation.
The treatment prevents turions growing, but doesn't harm the turions themselves.
How many years would have to do this before under control? Probably at least 2 years.
And if Lake Riley gets the native vegetation filling in, it's a better situation that currently exists & can probably go several years without treating. Not a lot of data on whether natives or milfoil will gain more from curbing curly leaf pondweed.
We will have undergrads looking at seed bed/sediment to try to count the seeds to get idea of what native plant base is there.
What will happen to curly leaf when dies? It won't be as bad as last year. We will be treating when they're small, so not as much plant mass to decompose in the water. Will re-apply for grant for next year's treatment. Grant is for $3000 per treatment, watershed

is paying about $6000. Looks good for getting funding next year also. Alum treatment will cost several hundred thousand - it's a lot more expensive.
We will be notified when treatment occurs. (email) Have to watch carefully for a specific temperature window in order to be able to treat.
This is a unique effort because of the amount of effort that has gone into getting data on Riley, and DNR has limited funds. So having the U and Watershed district help on this project is very, very valuable on a larger scale to the DNR.

Carp Removal and Lake Health - Przemek Bajer PhD:
Lake Ann is closest lake with healthy plant community.
What to do to encourage native plants? Removing carp was first. In 2008 over 6419 carp were removed. Now there are +/- 300 carp in Riley. Looking really well managed.

Water clarity pattern is same every year: from clear water in spring Riley clarity then gets very poor, and then clears again in fall.
U of M has been tracking lots of data during the changes of clarity, including phosphorous. Phosphorus goes higher & clarity goes down. Direct relationship.
Also tracked Daphnia. As their population declined, clarity also declined. So which is more important to Lake Riley's clarity: phosphorus or daphnia? No question that phosphorus is very important. Correlation shown in all the lakes they've been measuring. But Riley clarity is very bad in relation to how much phosphorus we have, so it's not the whole story. Thought it was excessive bluegills in lake (probably a population of 400,000!) Daphnia is the favorite snack of panfish, so we tested idea that lack of daphnia contributes to lack of clarity with 2 exclosures from June through the end of September. Inside the exclosure the water was MUCH clearer - where there were no fish. Phosphorus was identical in the lake & in the exclosure, but the amount of algae in Lake Riley as a whole was much higher than in exclosure. There were more daphnia in exclosure because there were no fish to eat them, and daphnia eats the algae. A wider variety of kinds of daphnia were found in the exclosure also, than were found in the lake.
So:
-Poor water quality seems to be driven BOTH by phosphorus and excessive densities of small bluegills
-A future alum treatment should reduce phosphorus concentrations
-We will repeat the exclosure experiment this summer to evaluate the need for special fish regulations

Most of phoshorus is coming FROM the lake itself, from the sediment. That's where alum treatment will help (hopefully we can treat with alum in 2014, at a cost of about $2-300,000.) Data collected will go to possibly convincing the DNR to alter the fishing regulations in our lake in the future.
Does the phosphorus itself affect the daphnia? No, does not seem to be a direct relationship.

A couple of possible solutions to reducing bluegill population. The panfish like the slightly warmer water in inlet, and we could possibly net them there. Looking at growth

rates of bluegills in Lake Susan after carp removed: plants got bigger, bigger bugs for the bluegills to eat, they grew larger.
Possible change in regulations - what would they be? Not sure, because could go about getting the results in different ways. Will be working with the DNR fisheries to determine. The perch we stocked may help. Have learned over time that the population of Pike in the lake is quite healthy. Incidentally, Lake Ann is a special regulation lake, so it's not unheard of to have special fishing regulations for certain lakes.
Can we introduce more daphnia? Not feasible to introduce more Daphnia. They disappear in late May cause the bluegills eat them up. Trying to control one thing at a time before moving on. Predator fish to bluegills might help, but alone wont solve the problem. Need strong data before taking a course like netting.

Mike Domke thanked all the presenters at our meeting, and brought it to a close.