

Minutes from the Lake Riley Improvement Association (LRIA) 2010 Annual Meeting

Date: Monday April 19, 2010

Time: 7 - 9 pm

Location: City of Eden Prairie Town Hall

Lower level

8080 Mitchell Rd.

Eden Prairie, MN 55344

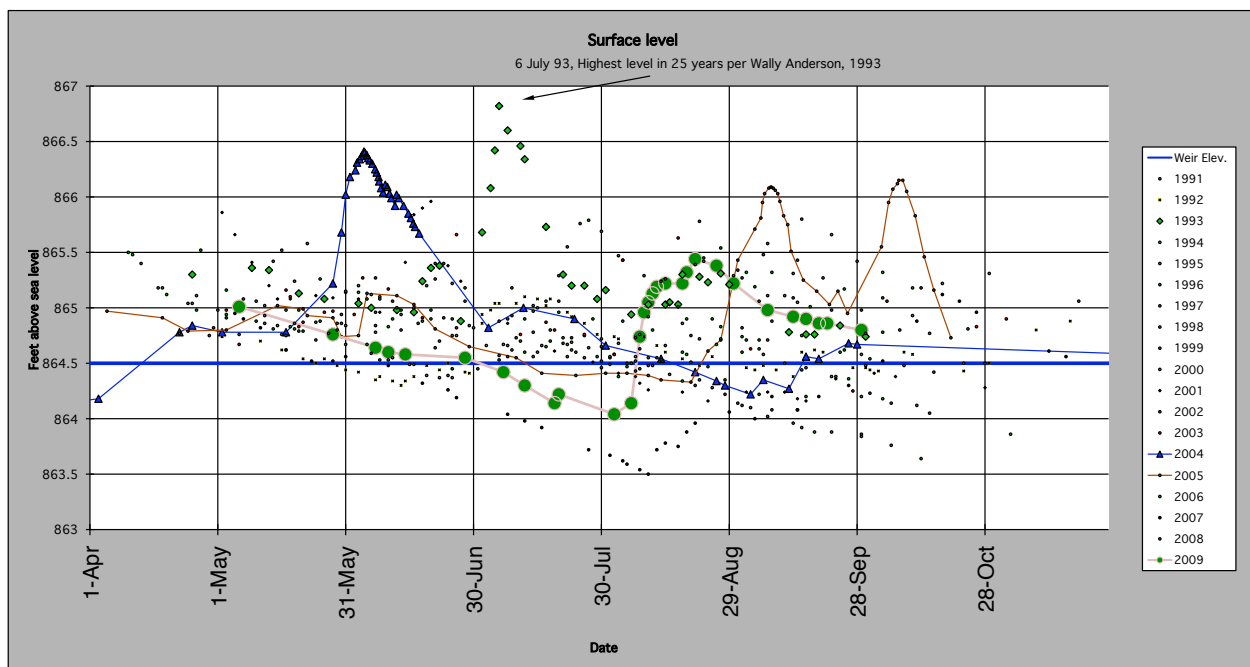
John Bushey, president of the LRIA, opened the meeting and made introductions.

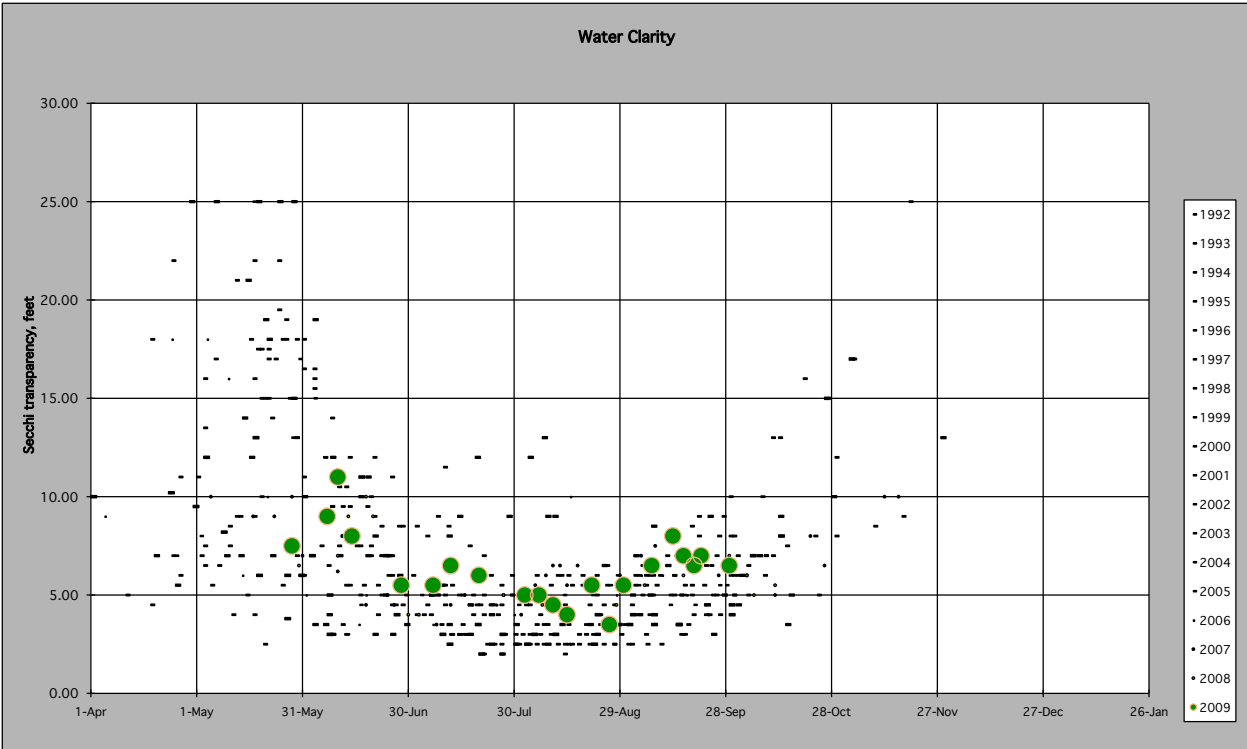
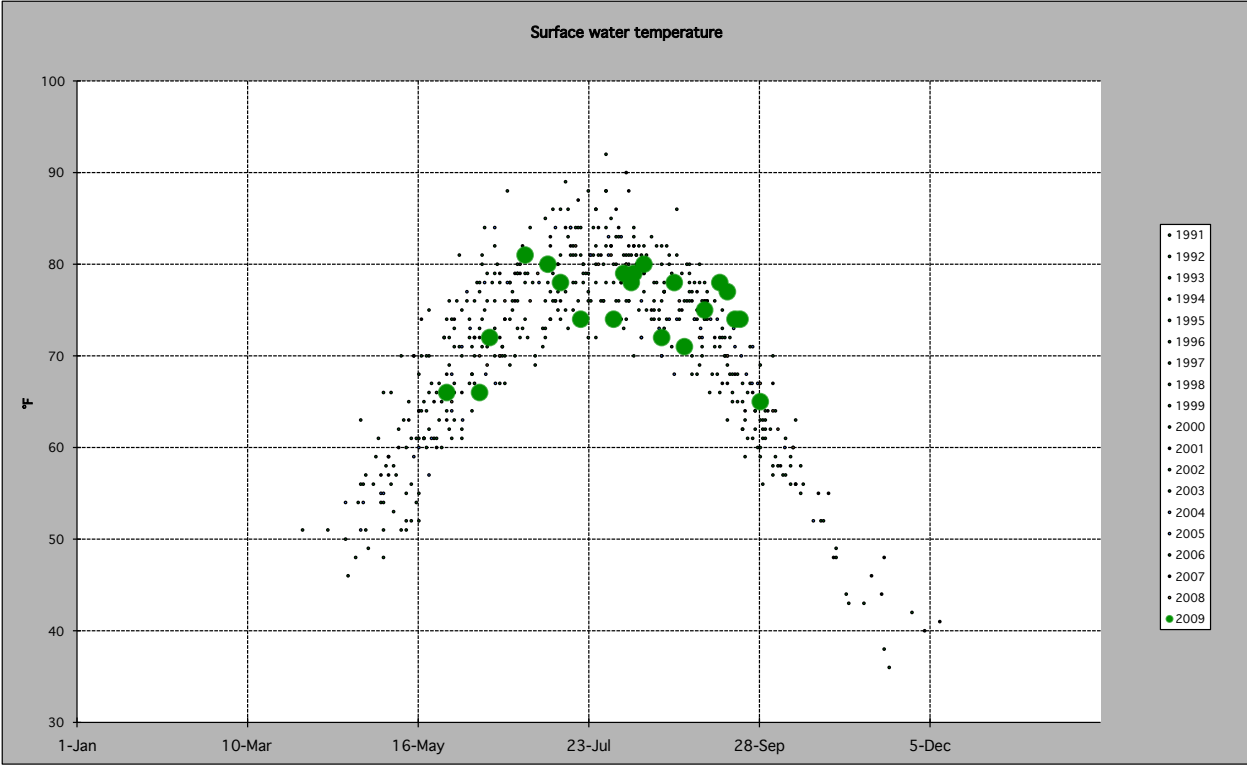
Minutes The 2009 meeting minutes were approved as written.

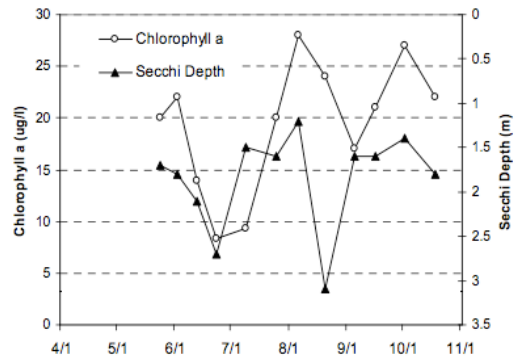
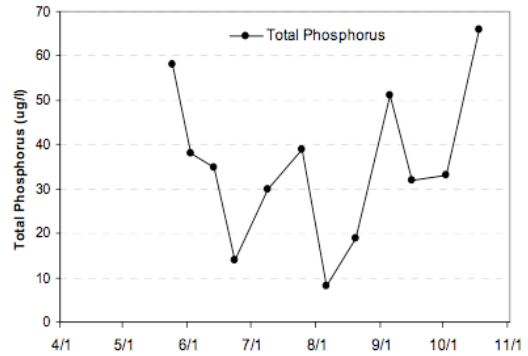
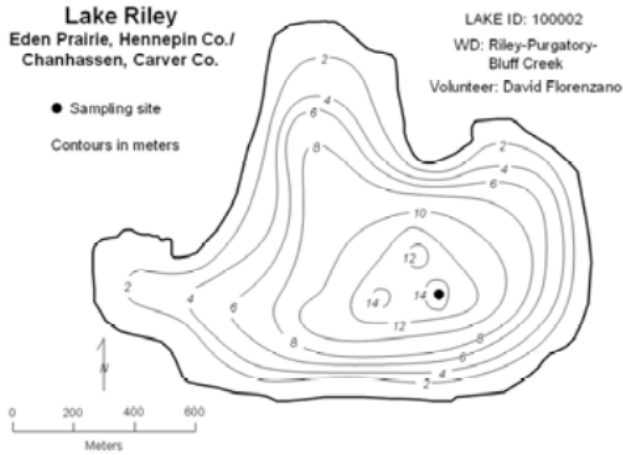
Reports John presented the Treasurer's report:

4-20-2009	Beginning Balance	\$6,103.45
	Bank adj.	(.35)
	2009 Dues Income	\$1,360.00
	2009 Fish Stocking	\$1,410.00
	Total 2009 Revenue	\$2,770.00
	2009 Expenses	--0--
4-10-2010	Ending Balance	\$8,783.10

John presented current lake measurement data. There are two programs: Citizen Lake Monitoring, MPCA and DNR, done by John Bushey, and Citizen Assisted Monitoring Program, Met Council, done by David Florenzano.





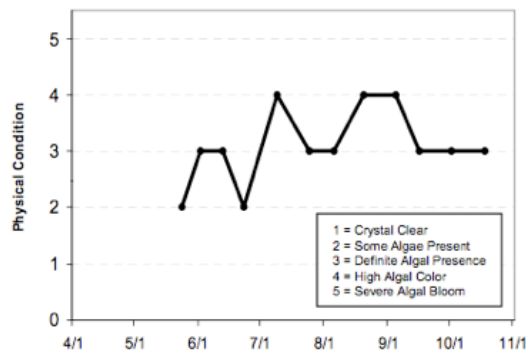
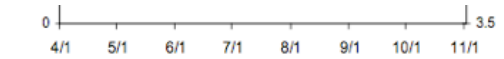


2008 Data

Surf Temp	Bot Temp	Surf DO	Bot DO	CLA	Surf TP	Bot TP	Secchi
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2008 Data

DATE	Surf Temp (°C)	Bot Temp (°C)	Surf DO (mg/L)	Bot DO (mg/L)	CLA (µg/L)	Surf TP (µg/L)	Bot TP (µg/L)	Secchi (m)	PC	RS
5/24	15.9				20	56		1.7	2	2
6/2	18.1				22	38		1.8	3	2
6/13	17.7				14	35		2.1	3	3
6/23	22.5				8.4	14		2.7	2	3
7/9	25.8				9.3	30		1.5	4	3
7/25	26.1				20	39		1.6	3	3
8/6	26				28	8		1.2	3	2
8/20	26.3				24	19		3.1	4	3
9/5	21.6				17	51		1.6	4	3
9/16	18.8				21	32		1.6	3	2
10/2	17.2				27	33		1.4	3	2
10/18	13.5				22	66		1.8	3	3



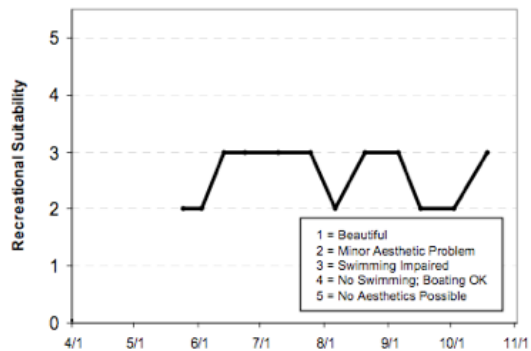
Lake Water Quality Grades Based on Summertime Averages

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991
Total Phosphorus	C	B	C	C	C	C	C	C				
Chlorophyll a	C	C	C	C	C	C	C	D			C	C
Secchi Depth	C	C	C	C	C	C	C	C	C		C	C
Lake Grade	C	C	C	C	C	C	C	C				

Year	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Total Phosphorus		C				C			C		C	C
Chlorophyll a		C				C			C		C	D
Secchi Depth		C				C			C		C	C
Lake Grade		C				C			C		C	C

Year	2004	2005	2006	2007	2008
Total Phosphorus	C	C	C	B	C
Chlorophyll a	C	C	B	B	B
Secchi Depth	B	C	B	C	C
Lake Grade	C	C	B	B	C

Source: Metropolitan Council and STORET data

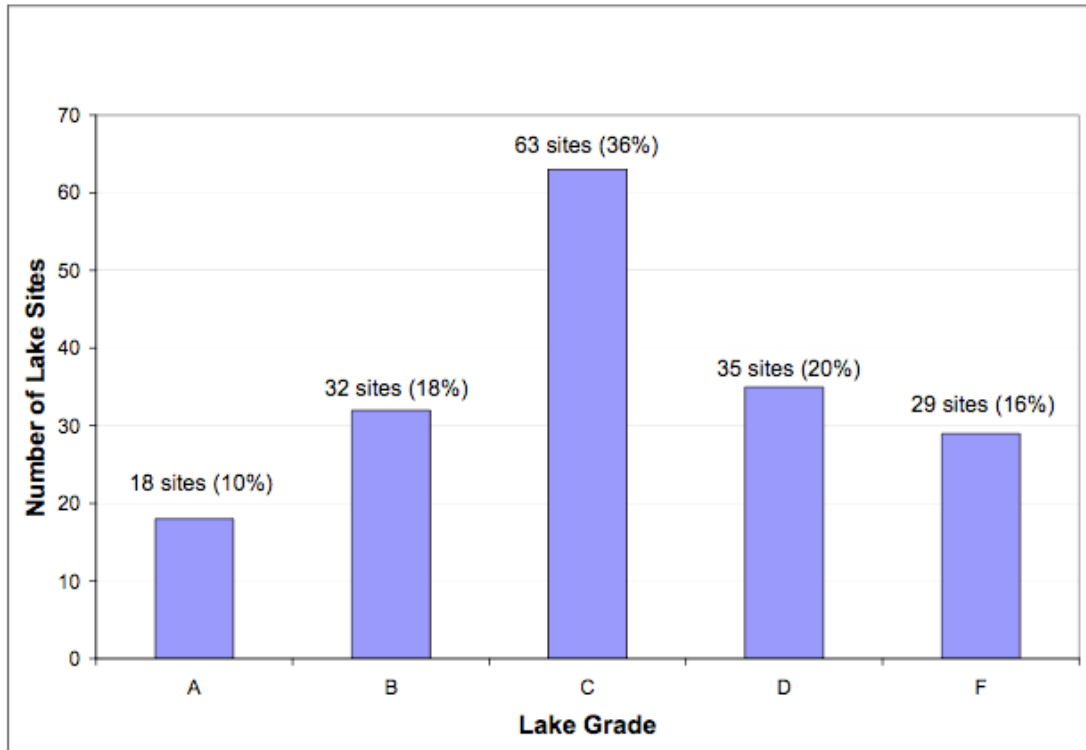


While Riley Lake has previously been monitored by Council staff, 2008 marks the sixth year the lake has been monitored through the CAMP. Riley Lake was monitored 12 times in 2008. On each sampling day the lake was monitored for total phosphorus (TP), chlorophyll-a (CLA), total Kjeldahl nitrogen (TKN), and Secchi transparency, as well as the lake's perceived physical condition and recreational suitability. The resulting data are summarized in tables and figures on the following page.

2008 summer (May-September) data summary

<i>Parameter</i>	<i>Mean</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Grade</i>
TP (µg/l)	32.4	8.0	58.0	C
CLA (µg/l)	18.4	8.4	28.0	B
Secchi (m)	1.9	1.2	3.1	C
TKN (mg/l)	1.78	1.40	2.10	
Lake Grade				C

The lake received a lake grade of C for 2008, which is consistent with most years of monitoring dating back to 1980. The lake appears to be characterized as a C lake grade. A trend analysis conducted by the MPCA on the lake's Secchi transparency data revealed no statistically significant trend in water clarity (MPCA 2008).



Lake Grades for the 2008 Monitoring Season

Now that the lake level has been stabilized by the new outlet, it was suggested that the DNR might be able to set a new high water mark.

Communications Anne Florenzano presented the completed LRIA brochure to be used to promote the LRIA to prospective members. She reminded everyone to keep her informed of email address changes.

Watershed District Perry Forster, board president, presented an update on Riley Purgatory Bluff Creek Watershed District board activities.

The board is focusing on the following priorities in managing the district's resources:

- 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

- dredging Round Lake ponds
- continued work on Third Generation plan. Now is 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. Monitored the water quality in Lakes Ann, Susan and Riley; began to restore the native plant community in Lake Susan; removed curly leaf pondweed in Lake Lucy.
- Lotus Lake weed surveys. Confirmed a link between hypolimnion oxidation reduction and the release of phosphorous from the lake sediment.
- Core sample analysis to determine the lake trophic state on a decade by decade basis from 1810 to the present.
- Cyanobacteria measuring in Lakes Lotus, Ann, Susan, Mitchell and Riley.
- Weed harvesting (curly leaf pondweed) and bi-weekly monitoring of Mitchell Lake; Solar Bee experiment was not successful
- Carp removal from Lakes Susan and Riley, in concert with the U of MN carp study and will be removing carp from Lake Lucy in 2010.

Future plans include:

- Possibly aerating Lake Lucy in winter of 2010-11 to reduce phosphorous loading. This 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 Przemyslaw Bajer 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, 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)
- 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, funding their research for several more years.

Elections No volunteers stepped forward for position of President; John Bushey will remain.

Pete Lillie volunteered to be Treasurer.

There was discussion about changing the structure of the board, separating the duties of Secretary from Treasurer. The motion was made and approved to do so. The duties of Secretary will continue to be taken by Anne Florenzano, with Pete Lillie as Treasurer.

The above slate of officers was approved.

There was discussion whether to abolish the District Representative system for collecting dues. The feeling was that by not having active reps, the membership has suffered; they still serve a purpose. The motion to reactivate the District Reps was approved, with the new reps being:

Norm Kruse

Dennis Mills / Dick Chadwick

David Florenzano

Eduardo Fernandez

John Bushey

Miscellaneous There was discussion about changing the date of the annual meeting. The motion was made and passed that the annual meeting can now be earlier in April.

The motion was approved to give the U of MN Carp study a grant of \$2000 to be used at their discretion. Przemic 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.

There was discussion of the fact that there was no walleye stocking last year. Some members have heard that it's good not to stock them every single year. Mike Domke volunteered to arrange it for this fall. Mike and Treasurer Pete Lillie assured the membership that any funds donated last year for fish stocking will be used for this years fish, and we will probably need more as well. John reminded everyone that the LRIA funds do not cover all the fish stocking costs, and we need to continue to ask for specific donations to help cover it.

There was discussion in favor of purchasing and dispersing our own herbicide to manage the lake weeds. Aquacide, in White Bear Lake is one good source. Some members have used another company, Midwest Aquacare, in Chaska and felt the price was very good. David Florenzano volunteered to get information on both companies.

David also wanted the membership to know that as well as monitoring the water in the CAMP program, he is participating in an experimental study with NOAA, along with several other citizens on lakes in MN and WI. They will test for blue-green algae in the lakes and work in coordination with NOAA satellite information. He will tell us more about it as time goes on.

Shortly after 9pm John adjourned the meeting.

Submitted by Anne Florenzano

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