

## Rice Lake [Maple Grove] (27-0116) – Elm Creek Watershed Management Commission

Rice Lake lies within the City of Maple Grove. The lake has a surface area of 252 acres and an average depth of 1.9 m (6.2 ft) which would give it a volume of 1570 acre-feet. The maximum depth is 3.4 m (11 ft). Because of the shallowness of the lake, the entire area is considered littoral zone (area of aquatic plant dominance) and it does not maintain a thermocline (a density gradient owed to changing water temperatures throughout the lake's water column). Eurasian water milfoil was documented to be present in the lake in 1996. There is a carry-in public access to the lake.

This was the first year that Rice Lake has been involved in CAMP. A search through the STORET nationwide water quality database for historic data on the lake showed that Secchi transparency measurements were collected along with user perception rankings for the years 1991, 1993, and 2002-2007. Dissolved oxygen measurements were collected in 1993. However, the CAMP 2007 data is the first year of known data collected for nutrients and chlorophyll-a.

On each sampling day the lake was monitored for TP, CLA, TKN, and Secchi transparency, as well as the lake's perceived physical condition and recreational suitability. The lake was monitored 10 times between late-June and mid-October 2007. The resulting data and graphs appear on the next page.

### 2007 summer (May-September) data summary

<i>Parameter</i>	<i>Mean</i>	<i>Minimum</i>	<i>Maximum</i>	<i>Grade</i>
TP ( $\mu\text{g/l}$ )	222.1	144.0	327.0	F
CLA ( $\mu\text{g/l}$ )	97.7	9.2	150.0	F
Secchi (m)	0.6	0.4	0.9	F
TKN (mg/l)	3.80	2.80	5.20	
			<b>Water Quality</b>	F

The lake received an grade of F for 2007. As mentioned earlier, there are no nutrient data available for the lake other than the 2007 CAMP data. Therefore there are not sufficient data to determine long-term or short-term trends. To better understand the lake's water quality and where it may be heading, additional years of data collection are needed.

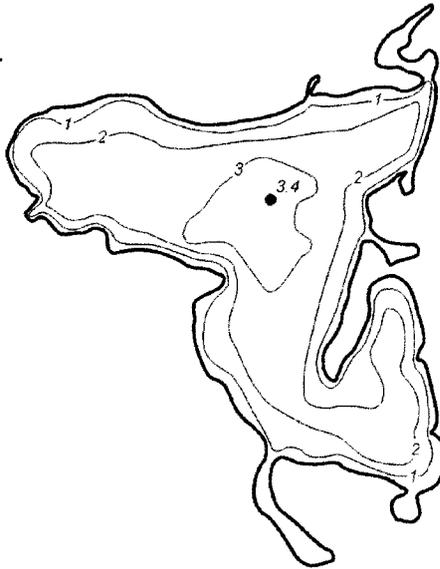
The perceived physical and recreational conditions (ranked on a 1-to-5 scale) are shown on the lake's information sheet on the next page. The average user perception rankings were 3.9 for physical condition (roughly 4- "high algal color"), and 4.0 for recreational suitability (4- "no swimming – boating ok").

The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) has conducted a fisheries survey on the lake. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 297-4916 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

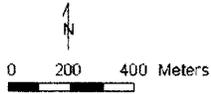
If you notice any errors in the lake's data or physical information, or are aware of any additional or missing information, please contact Brian Johnson of the Metropolitan Council at (651) 602-8743 or [brian.johnson@metc.state.mn.us](mailto:brian.johnson@metc.state.mn.us).

**Rice Lake**  
Maple Grove, Hennepin Co.

Lake ID: 270116  
WMO: Elm Creek  
Volunteer: George Schneider

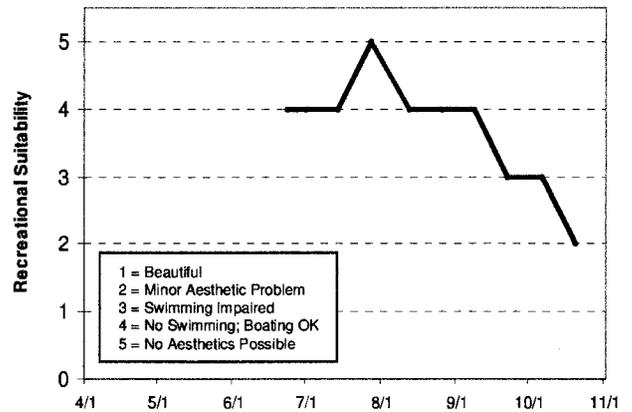
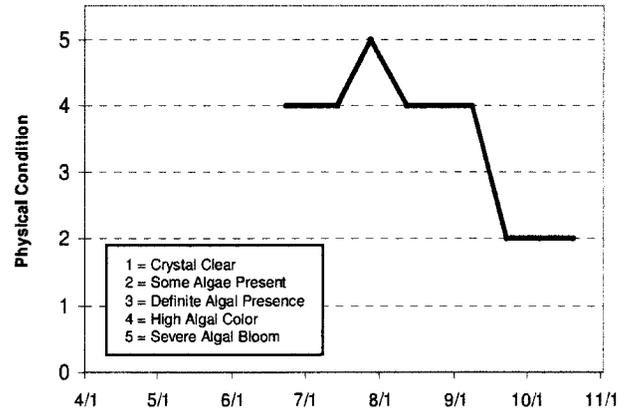
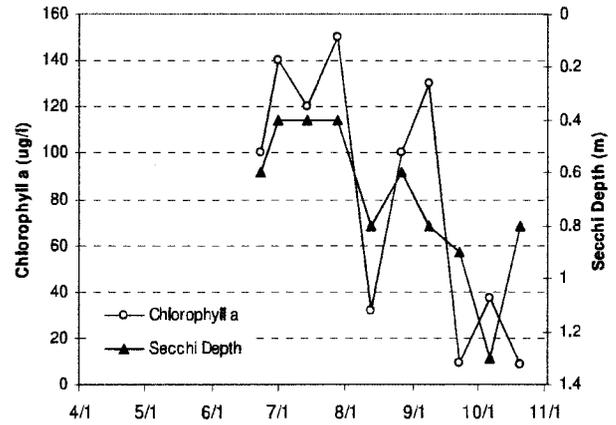
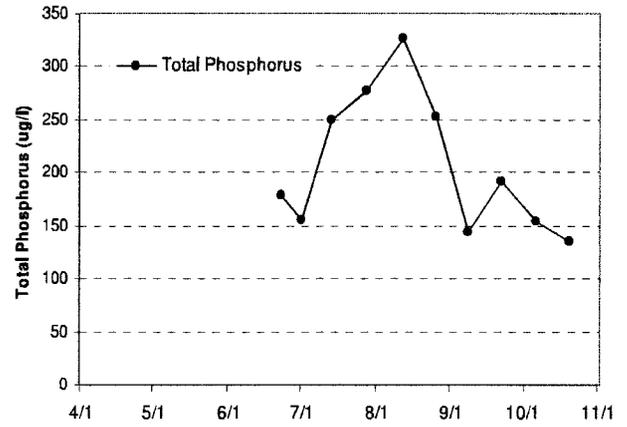


● Sampling site  
Contours in meters



**2007 Data**

Date	Surf. Temp C	Bot. Temp C	Surf. DO (mg/L)	Bot. DO (mg/L)	CLA (ug/L)	Surf. TP (ug/L)	Bot. TP (ug/L)	Secchi (m)	PC 1 thru 5	RS 1 thru 5
06/23/07	26				100	178		0.6	4	4
07/01/07	26				140	156		0.4	4	4
07/14/07					120	250		0.4	4	4
07/28/07	31				150	278		0.4	5	5
08/12/07	28				32	327		0.8	4	4
08/26/07	23				100	252		0.6	4	4
09/08/07	24				130	144		0.8	4	4
09/22/07	19				9.2	192		0.9	2	3
10/06/07	19				37	154		1.3	2	3
10/20/07	13				8.7	135		0.8	2	2



**Lake Water Quality Grades Based on Summertime Averages**

Year	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Total Phosphorus														
Chlorophyll a														
Secchi Depth														
Overall														

Year	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Total Phosphorus														F
Chlorophyll a														F
Secchi Depth														F
Overall														F

Source: Metropolitan Council and STORET data