

In 1997 the Commission monitored Fish, Weaver and Sylvan Lakes. Fish and Weaver Lakes are listed as critical lakes in the Commission's Management Plan. The Commission has been monitoring these lakes since 1980. Sylvan Lake was monitored by the Commission for the first time in 1997. Sylvan Lake is within the area of Hassan Township that was added to the Commission's legal watershed boundary in 1990 and 1991.

Sylvan Lake showed the highest concentrations of phosphorus (829 141) and Chlorophyll (207 mg/m³) ever seen in lakes within this watershed. The mean phosphorus concentration in Fish, Weaver and Sylvan lakes was 54, 32, and 513 1.tg/1, respectively, for the period of April through October. Total phosphorus is the limiting nutrient that can cause algal blooms and excessive weed growth.

The average transparency of Weaver, Fish and Sylvan Lakes in 1997 were 6.3 feet, 4.6 feet, and 1.3 feet, respectively. Both Fish and Weaver lakes have highly developed watersheds. They receive extensive recreational use and are important resources for the watershed. Sylvan Lake's watershed is primarily agricultural; however, residential development is occurring in the watershed. A feedlot is located on Sylvan Lake, and cattle have access to the lake. Runoff from the feedlot is directed to the lake without any treatment. For these three lakes, a list .of parameters and concentrations is attached as Appendix 2. In addition to the parameters listed, dissolved oxygen and temperature profiles were measured for each sampling date.

Sylvan Lake				
	SDT	TP	CHL	TKN
	feet	µg/l	mg/m ³	mg/l
22-Apr-97	1.3	329	88	2.8
05-May-97	1.1	311	34	1.6
19-May-97	1.1	140		3.2
03-Jun-97	1.6	303	60	2.7
17-Jun-97	2.0	448	194	3.7
16-Jul-97	1.0	712	207	4.2
28-Jul-97	0.7	678	107	
11-Aug-97	0.7	829	19	4.2
25-Aug-97	1.6	518	203	4.5
08-Sep-97	1.6	762		3.8
22-Sep-97	1.0	671	128	4.6
14-Oct-97		458	104	7
Mean	1.3	513	114	3.8
Median	1.1	488	106	3.8
Std. Dev.	0.4	217	69	1.4