

The mean phosphorus concentrations in Fish, Weaver and Jubert Lake for 2000 were 55, 41, and 73  $\mu\text{g/l}$ , respectively, for the period of April through October. Total phosphorus is the limiting nutrient that can cause algal blooms and excessive weed growth. Total nitrogen averages for 2000 were 1.3 and 1.1  $\text{mg/l}$  for Fish and Weaver Lakes. In Jubert Lake through the CAMP, total Kjeldahl nitrogen (TKN) was analyzed. This value is less than the total nitrogen because it excludes the nitrate and nitrite values that are usually low in lakes. The mean TKN in Jubert Lake for 2000 was 1.9  $\text{mg/l}$ .

The average transparencies for Fish, Weaver and Jubert Lakes in 2000 were 4.6, 6.2, and 2.2 feet, respectively. Chlorophyll a concentrations averaged 24.9, 13.0 and 34  $\mu\text{g/l}$  for Fish, Weaver and Jubert Lakes. Both Fish and Weaver Lakes have highly developed watersheds. They receive extensive recreational use and are important resources for the watershed. Jubert Lake is in a more rural setting with a combination of agricultural and large lot residential land uses in its watershed. For these three lakes, a list of parameters and concentrations is attached in Appendix 2.2. Long-term water quality trends and the summary of lake sampling history of these lakes are also included in Appendices 2.1 and 2.3. In addition to the parameters listed, dissolved oxygen, temperature, conductivity and pH profiles were measured for each sampling date in Fish and Weaver Lakes.

Long term averages were calculated for the lakes sampled. Fish Lake had long-term means of 49  $\mu\text{g/l}$ , 5.9 feet, and 19.4  $\mu\text{g/l}$ , for phosphorus, transparency and chlorophyll a for the period of 1980-2000. The lake was sampled 19 years within that 21-year period. Averages for the most recent five years of sampling were 50.8  $\mu\text{g/l}$ , 5.3 feet and 18.1  $\mu\text{g/l}$ . The lake has exceeded the phosphorus goal of 35  $\mu\text{g/l}$ , in 16 of the 21 years but has met the chlorophyll a goal of 20  $\mu\text{g/l}$  in 14 of the 19 years. Fish Lake has met the transparency goal of 4.9 feet in 15 of the 21 years.

Phosphorus concentrations in Fish and Weaver Lake were increasing until about 1993 when they stabilized. The watersheds of Fish and Weaver Lakes were almost completely developed by the mid 1990s. The nutrient loading has remained fairly steady since 1993.

Fish Lake					
Date	TP $\mu\text{g/l}$	TN $\text{mg/l}$	Chl.a $\mu\text{g/l}$	SDT feet	Alkalinity $\text{mg/L}$
Apr 12, 2000	78	1.40	108	5.3	
Apr 25, 2000	49	1.32	5	4.9	148
May 09, 2000	73	1.50	28	3.3	156
May 24, 2000	65	1.08	7	6.6	162
Jun 07, 2000	33	1.06	8	2.4	143
Jun 21, 2000	45	1.3	23	4.3	150
Jul 05, 2000	45	1.3	14	4.3	159
Jul 19, 2000	66	1.1	14	4.9	122
Aug 02, 2000	50	1.4	19	3.0	107
Aug 16, 2000	39	1.2		3.3	120
Aug 29, 2000	51	1.3	34	3.9	127
Sep 13, 2000	53	1.3	19	3.6	135
Oct 04, 2000	70	1.0	20	5.6	139
Mean	55	1.3	24.9	4.6	139
Median	51	1.3	19.0	3.9	141
Std. Dev.	14	0.1	27.5	1.9	17

