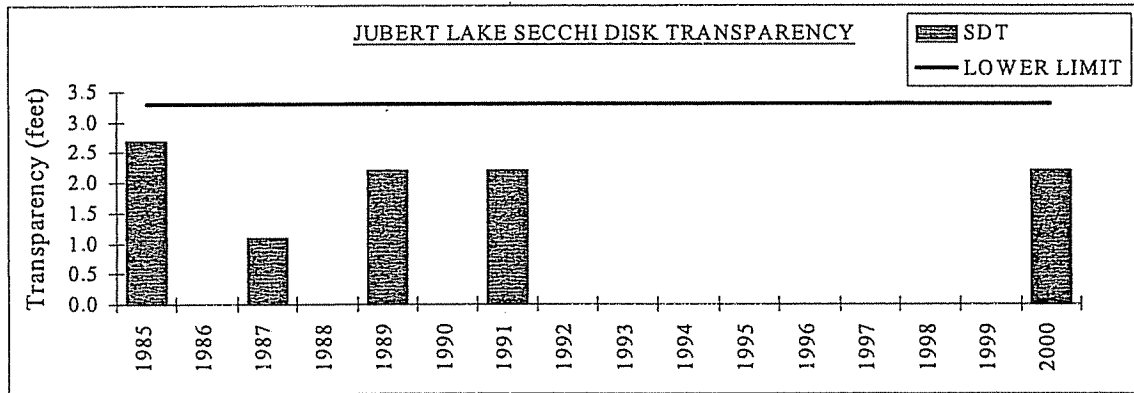
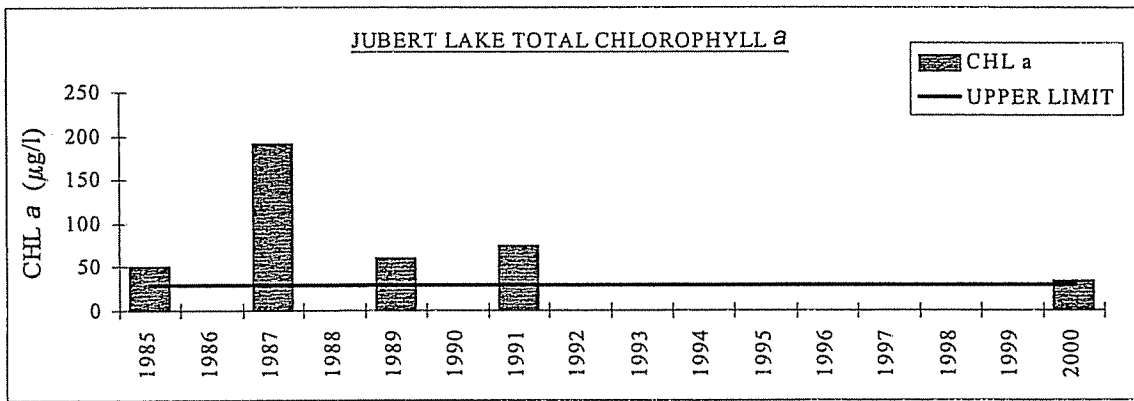
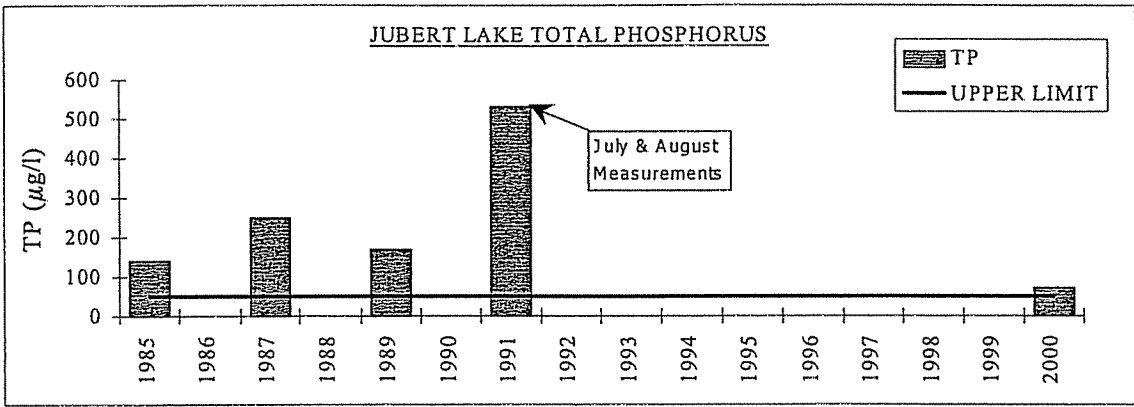


The mean phosphorus concentrations in Fish, Weaver and Jubert Lake for 2000 were 55, 41, and 73<sub>1</sub>2g/1, respectively, for the period of April through October. Total phosphorus is the limiting nutrient that can cause algal blooms and excessive weed growth. Total nitrogen averages for 2000 were 1.3 and 1.1 mg/1 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 mg/1.

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 m g/1 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.

Jubert Lake has been sampled five times since 1985 and has historically shown very high phosphorus concentrations and eutrophic conditions. In 2000, the mean phosphorus and chlorophyll a concentrations were the lowest found. Jubert Lake has never met the goals established by the Commission for category II lakes.

| Jubert Lake  |            |             |               |             |
|--------------|------------|-------------|---------------|-------------|
| Date         | TP<br>µg/l | TKN<br>mg/l | Chl.a<br>µg/l | SDT<br>feet |
| May 16, 2000 | 110        | 2.00        | 51            | 2.0         |
| May 31, 2000 | 90         | 2.00        | 67            | 1.6         |
| Jun 12, 2000 | 80         | 1.90        | 49            | 2.0         |
| Jun 21, 2000 | 80         | 1.80        | 13            | 2.0         |
| Jul 05, 2000 | 80         | 2.00        | 38            | 2.0         |
| Jul 19, 2000 | 70         | 2.0         | 50            | 2.6         |
| Aug 01, 2000 | 60         | 1.9         | 15            | 2.0         |
| Aug 16, 2000 | 50         | 1.8         | 19            | 2.6         |
| Sep 07, 2000 | 60         | 1.9         | 37            | 2.3         |
| Sep 19, 2000 | 70         | 2.1         | 32            | 2.3         |
| Oct 08, 2000 | 50         | 2.0         | 8             | 2.6         |
| Mean         | 73         | 1.9         | 34            | 2.2         |
| Median       | 70         | 2.0         | 37            | 2.0         |
| Std. Dev.    | 17.9       | 0.1         | 18.9          | 0.3         |



## **Jubert Lake (27-0165) Elm Creek Watershed Management Organization**

Jubert Lake is a 75-acre lake located within Corcoran Township (Hennepin County). While the lake has maximum depth of approximately 12.5 m (41 feet), the majority of the lake's area is considered littoral zone (the 0-15 foot depth area of the lake dominated by aquatic plants).

This was the first year that Jubert Lake has been involved in CAMP. A search through the STORET nationwide water quality database for data on the lake provided limited historic Secchi transparency data (1985, 1987, 1989, and 1991) and no nutrient data. Thus, 2000 is the only year of available nutrient data.

The lake was monitored 11 times from mid-May to early-October, 2000. Results are presented in both graphs and data tables on the lake's information sheet on the following page.

The summertime (May through September) means for the monitored variables were: surface TP= 75.0 µg/l (minimum concentration of 50.0 µg/l and a maximum value of 110.0 µg/l); surface chlorophyll-a= 40.0 µg/l (minimum of 14.0 µg/l and maximum of 66.0 µg/l); Secchi transparency= 0.7 m (minimum of 0.5 m and a maximum of 0.8 m); and TKN= 1.94 mg/l (minimum of 1.80 mg/l and maximum of 2.10 mg/l). The lake's summertime means translate to water quality grades of D for TP, C, for CLA, and D for Secchi transparency. These grades result in an overall water quality grade of D for Jubert Lake in 2000.

As mentioned earlier, there was little water quality data found for Jubert Lake prior to the 2000 CAMP data. Therefore it is impossible to determine any long-term or short-term trends. To better understand the lake's water quality and where it may be heading, more data are needed.

The last two graphs show seasonal variation in the lake's perceived physical condition and recreational suitability. The average user perception rankings, on a 1-to-5 scale, were 3.7 for physical condition (between 3- "definite algal presence" and 4- "high algal color"), and 4.7 for recreational suitability (between 4- "no swimming; boating ok" and 5- "no aesthetics possible").

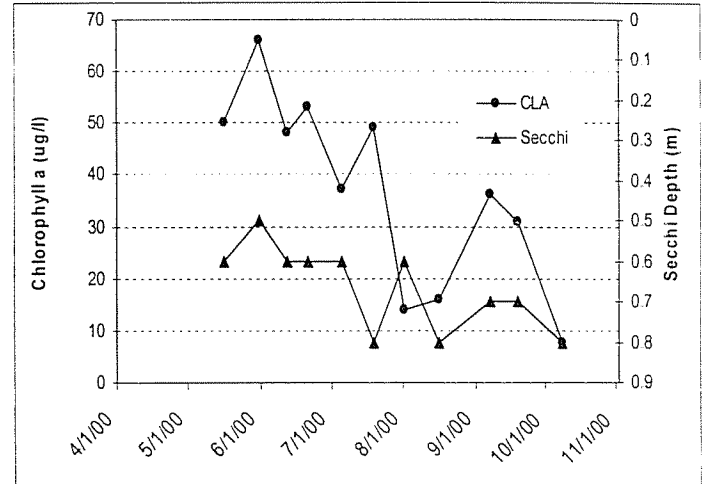
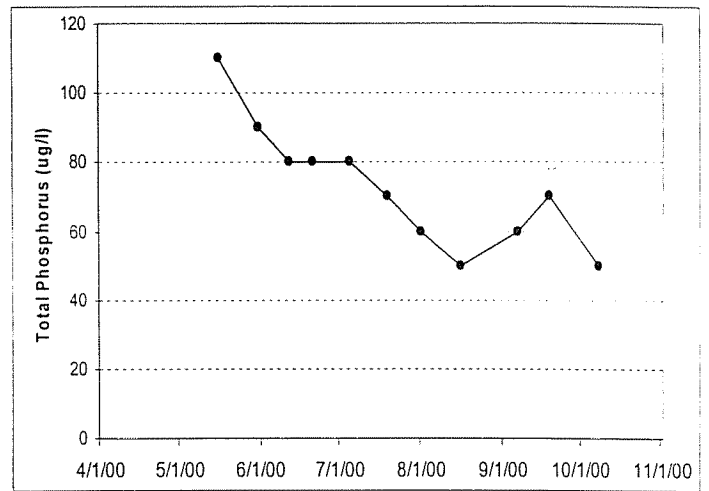
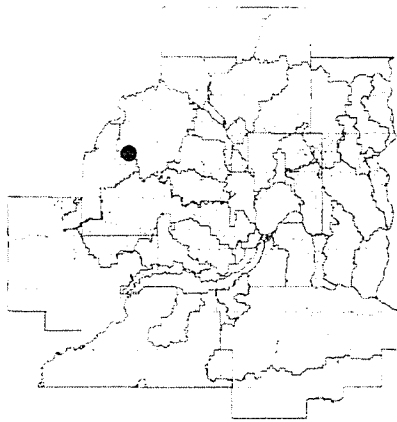
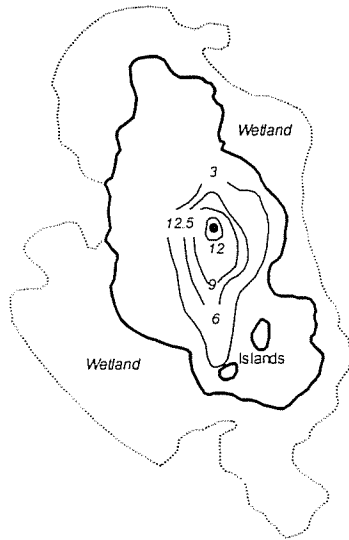
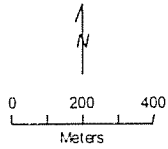
The Fisheries Section of the Minnesota Department of Natural Resources (MDNR) conducted a fisheries survey on the lake in 1991. Information on the survey can be obtained through the MDNR Fisheries Section by calling (651) 297-4916 or by downloading the information off the Internet at <http://www.dnr.state.mn.us/lakefind/>.

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

**Jubert Lake**  
Corcoran, Hennepin Co.

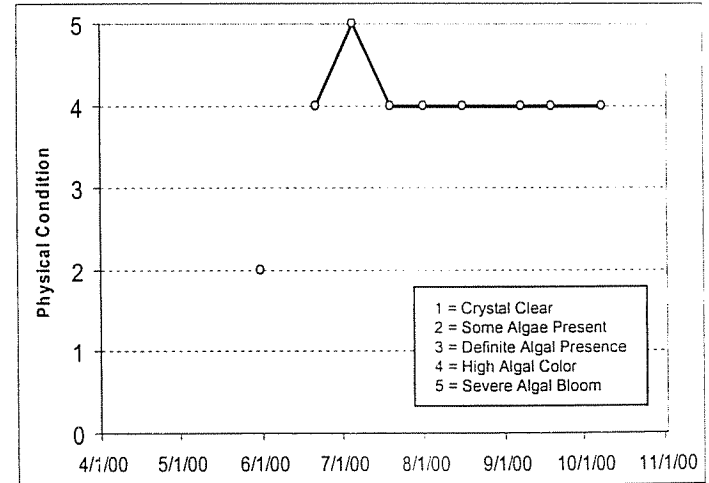
Lake ID: 270165  
WMO: Elm Creek  
Volunteers: Jim and Sharon Hale

● Sampling site  
Contours in meters



**2000 Data**

| Date    | Surface Temp (C) | Bottom Temp (C) | Surface DO (mg/l) | Bottom DO (mg/l) | CLA (ug/l) | Surface TP (ug/l) | Bottom TP (ug/l) | Secchi (m) | Phys. Cond. | Rec. Suit. |
|---------|------------------|-----------------|-------------------|------------------|------------|-------------------|------------------|------------|-------------|------------|
| 5/16/00 | 15               |                 |                   |                  | 50         | 110               |                  | 0.6        | 2           | 4          |
| 5/31/00 | 16               |                 |                   |                  | 65         | 90                |                  | 0.5        | 2           | 4          |
| 6/12/00 | 23               |                 |                   |                  | 48         | 80                |                  | 0.6        |             | 4          |
| 6/21/00 | 20               |                 |                   |                  | 53         | 80                |                  | 0.6        | 4           | 5          |
| 7/15/00 | 21               |                 |                   |                  | 37         | 80                |                  | 0.6        | 5           | 5          |
| 7/19/00 | 23               |                 |                   |                  | 49         | 70                |                  | 0.8        | 4           | 5          |
| 8/1/00  | 29               |                 |                   |                  | 14         | 60                |                  | 0.6        | 4           | 5          |
| 8/16/00 | 24               |                 |                   |                  | 16         | 50                |                  | 0.8        | 4           | 5          |
| 9/7/00  | 21               |                 |                   |                  | 36         | 60                |                  | 0.7        | 4           | 5          |
| 9/19/00 | 20               |                 |                   |                  | 31         | 70                |                  | 0.7        | 4           | 5          |
| 10/8/00 | 10               |                 |                   |                  | 7.6        | 50                |                  | 0.8        | 4           | 5          |



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

| Year             | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 |
|------------------|------|------|------|------|------|------|------|------|------|------|
| Total Phosphorus |      |      |      |      |      |      |      |      |      |      |
| Chlorophyll a    |      |      |      |      |      |      |      |      |      |      |
| Secchi Depth     |      |      |      |      |      | D    |      | F    |      | F    |
| Overall          |      |      |      |      |      |      |      |      |      |      |

| Year             | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
|------------------|------|------|------|------|------|------|------|------|------|------|------|
| Total Phosphorus |      |      |      |      |      |      |      |      |      |      | D    |
| Chlorophyll a    |      |      |      |      |      |      |      |      |      |      | C    |
| Secchi Depth     |      |      |      | F    |      |      |      |      |      |      | D    |
| Overall          |      |      |      |      |      |      |      |      |      |      | D    |

