

## Lake Jacomo

Region - Osage Plains

Lake Jacomo is managed by the Jackson County Parks and Recreation Department and is located in Fleming Park. Most of this 1,068 acre lake's watershed is urban (56%) with forest, grassland and row crop comprising the rest. Prairie Lee Lake is located directly upstream and acts as a buffer between Lake Jacomo and most of the watershed.

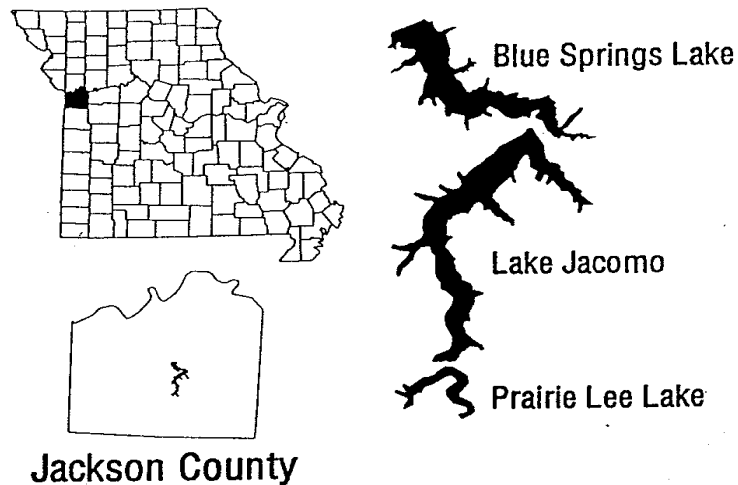


Figure 23. Location of Lake Jacomo.

### 2000 Results

Figure 24 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids, and Secchi transparency varied in Lake Jacomo during the 2000 sampling season. A brief description of these results are:

- ▶ Seven samples were collected, the first on 4-21 and the last on 10-3.
- ▶ Parameters showed low to moderate variability with the exception of the last sample.
- ▶ The last sample date was October 3. The surface temperature decreased by 10°F from the previous sample. This, along with the elevated nutrient values of this sample, could indicate the beginning of the turnover process (see page 12 for a further explanation of turnover).
- ▶ Average values measured for phosphorus and chlorophyll were in the eutrophic range with the values for these parameters being near the cut off between mesotrophic and eutrophic. Nitrogen values were in the mesotrophic range.
- ▶ See page 71 for trend analysis.

Table 11. Descriptive statistics for Lake Jacomo - 2000.

Parameters	Average	Median	Minimum	Maximum
Chlorophyll ( $\mu\text{g/L}$ )	11.1	6.8	5.7	26.1*
Nitrogen ( $\mu\text{g/L}$ )	340	340	330	590
Phosphorus ( $\mu\text{g/L}$ )	31	26	20	67
ISS (mg/L)	3.1	2.6	2.1	4.8
Secchi (inches)	49	48	37	59

ISS = Inorganic Suspended Solids

\* Chlorophyll calculations based on only five values.

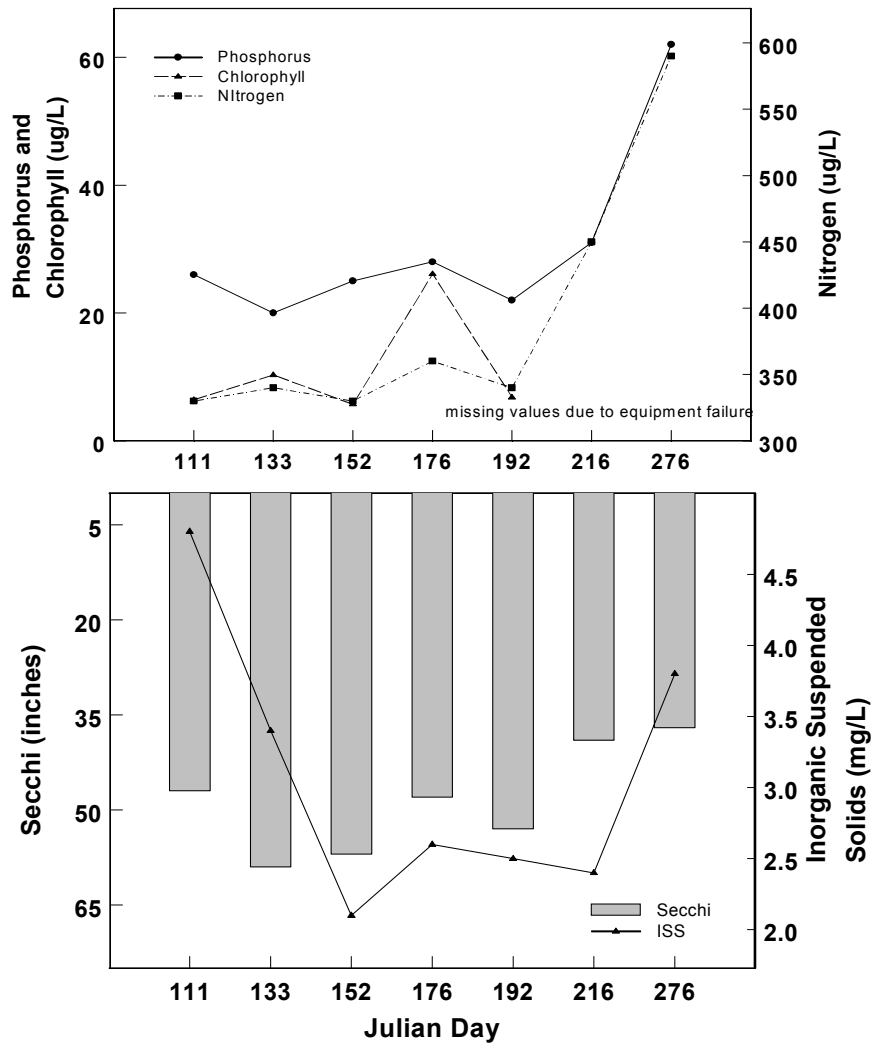


Figure 24. Seasonal fluctuations of parameters for Lake Jacomo - 2000.

Seasonal