

Lake Jacomo

Osage Plains Region

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 much of the watershed.

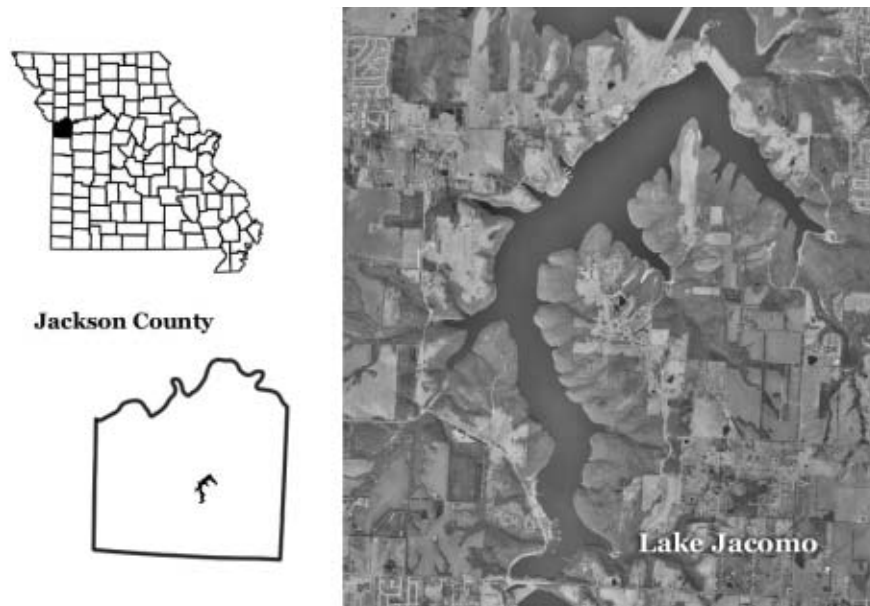


Figure 23. Location of Lake Jacomo.

2002 Results

Figure 24 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Lake Jacomo during the 2002 sampling season. The descriptive statistics appear in Table 11. A brief description of these results:

- 8 samples were collected between April 29 and September 20.
- Nitrogen and phosphorus display an overall increase in concentrations through the summer. This is an unusual pattern, as nutrient concentrations typically decrease through the summer.
- Jacomo Lake was eutrophic based on geometric mean chlorophyll and phosphorus values and mesotrophic based on geometric mean nitrogen values.
- See the *Trends* section (pg. 82) for long-term analyses of Blue Springs data.

Table 11. Descriptive statistics for Lake Jacomo - 2002.

Parameters	# of Samples	Geometric Mean	Minimum	Maximum	Median
Secchi Transparency (inches)	8	52	37	89	47
Phosphorus ($\mu\text{g/L}$)	8	26	19	38	27
Nitrogen ($\mu\text{g/L}$)	8	438	340	500	460
Chlorophyll ($\mu\text{g/L}$)	8	11.9	1.5	29.1	18.1
ISS (mg/L)	8	1.9	1.4	3.7	1.8

ISS=Inorganic Suspended Solids

Samples were collected between April 29 and September 20

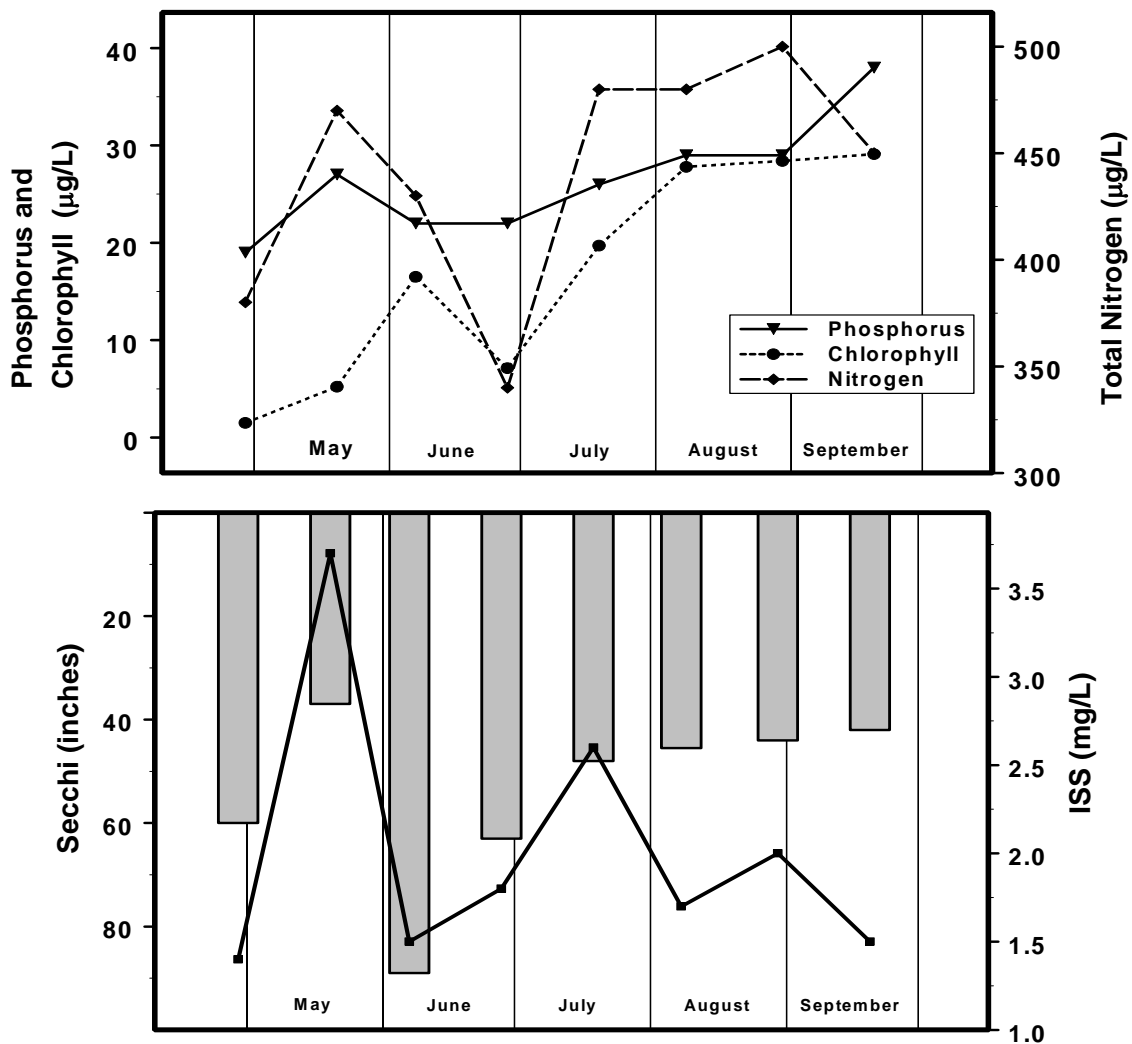


Figure 24. Seasonal fluctuations of parameters in Lake Jacomo– 2002. Bars represent Secchi, line represents ISS.