

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.

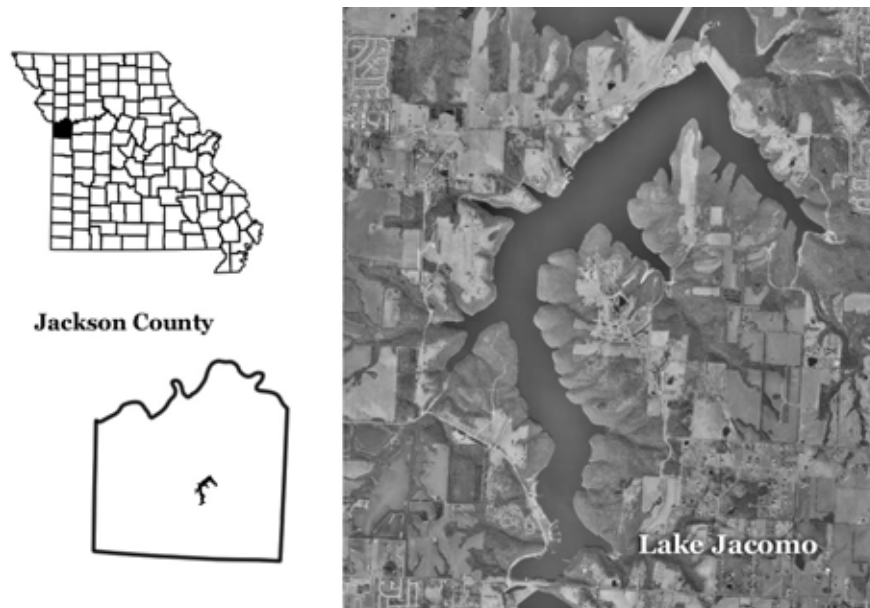


Figure 34. Location of Lake Jacomo.

2003 Results

Figure 35 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Lake Jacomo during the 2003 sampling season. The descriptive statistics appear in Table 17. A brief description of these results:

- 8 samples (and 9 Secchi observations) were collected between April 27 and October 7
- The Secchi transparency on June 12 was the second deepest recorded for Jacomo Lake by the LMVP to date (99"). The deepest Secchi observed was 118" in 1999.
- Concentrations of nitrogen, phosphorus, and chlorophyll generally increased from May through September
- There were apparent bloom conditions in August and late September, as chlorophyll concentrations equaled phosphorus concentrations
- Inorganic suspended solids concentrations were stable and low throughout the season
- Lake Jacomo was mesotrophic based on geometric mean nitrogen concentrations and eutrophic based on phosphorus and chlorophyll concentrations in 2003

Table 17. Descriptive statistics for Lake Jacomo - 2003.

	Secchi (inches)	TP ($\mu\text{g/L}$)	TN ($\mu\text{g/L}$)	CHL ($\mu\text{g/L}$)	ISS (mg/L)
# of Samples	9	8	8	8	8
Median	46	28	425	13.2	2.0
Minimum	41	19	300	2.4	0.8
Maximum	99	45	580	43.2	3.7
Geometric Mean	53	28	435	10.4	1.8

Samples were collected between April 27 and October 7

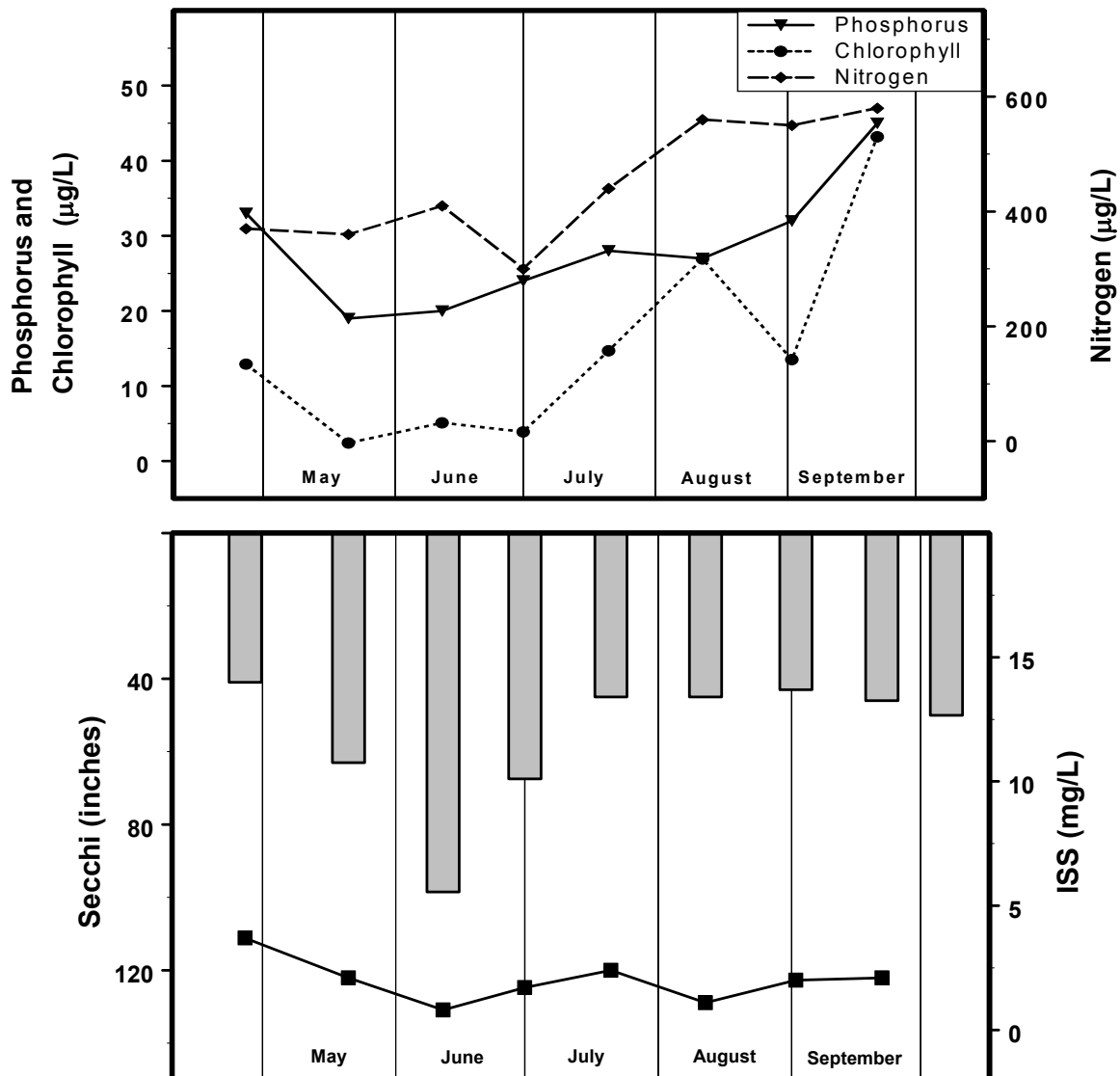


Figure 35. Seasonal fluctuations of parameters in Lake Jacomo– 2003. Bars represent Secchi, line represents ISS.