

Lake Jacomo

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.

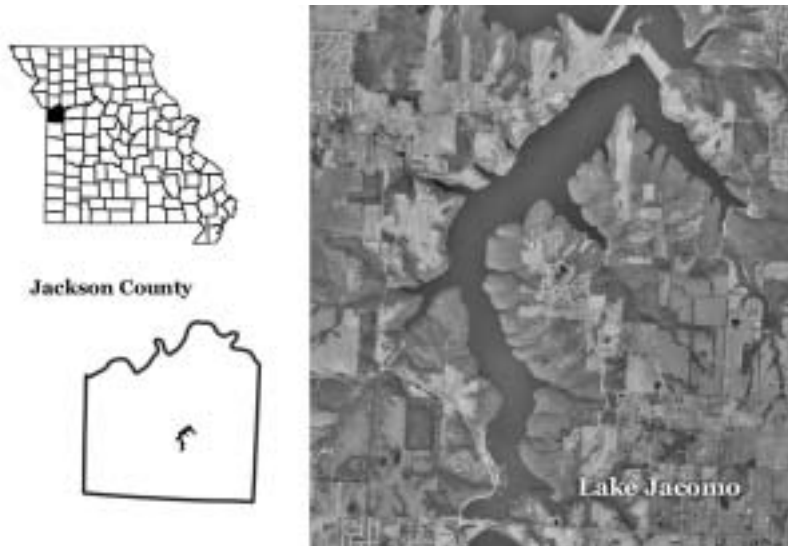


Figure 41. Location of Lake Jacomo.

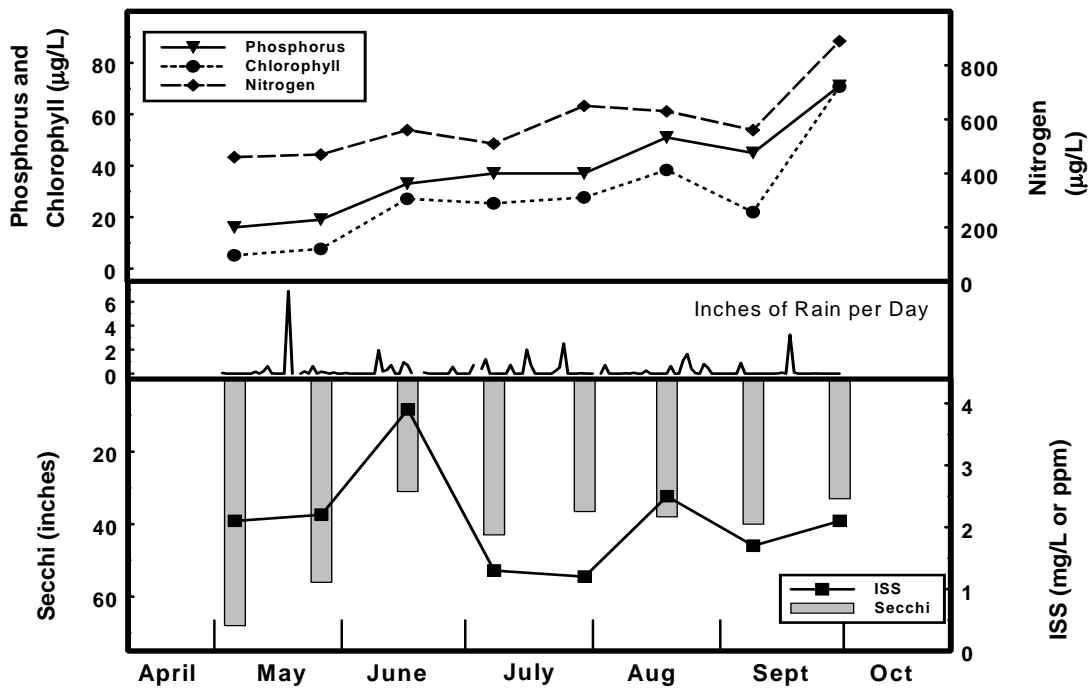


Figure 42. Seasonal fluctuations of parameters for Lake Jacomo – 2004

Table 12. Descriptive statistics for Lake Jacomo – 2004.

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
Geometric Mean	42	35	579	21.4	2.0
Minimum	31	16	460	5.1	1.2
Maximum	68	71	890	70.7	3.9
Number of Samples	8	8	8	8	8

2004 Results

Figure 42 shows how the parameters nitrogen, phosphorus, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Lake Jacomo during 2004. The descriptive statistics appear in Table 12.

A brief description of the results:

- Nutrients and chlorophyll generally increased throughout the 2004 season.
- The chlorophyll concentration on Sept. 30 was equal to the phosphorus concentration. This is indicative of an algae bloom, as algae are using the available nutrients very efficiently. The chlorophyll concentration on that date was the highest ever observed at Lake Jacomo by the LMVP (70.7 ug/L).
- Chlorophyll concentrations in Lake Jacomo showed a 14-fold range in 2004.
- Secchi transparency values generally declined as season progressed, due to increasing algal biomass as measured by chlorophyll concentration.
- 2004 mean phosphorus concentrations were the highest observed since 1998.

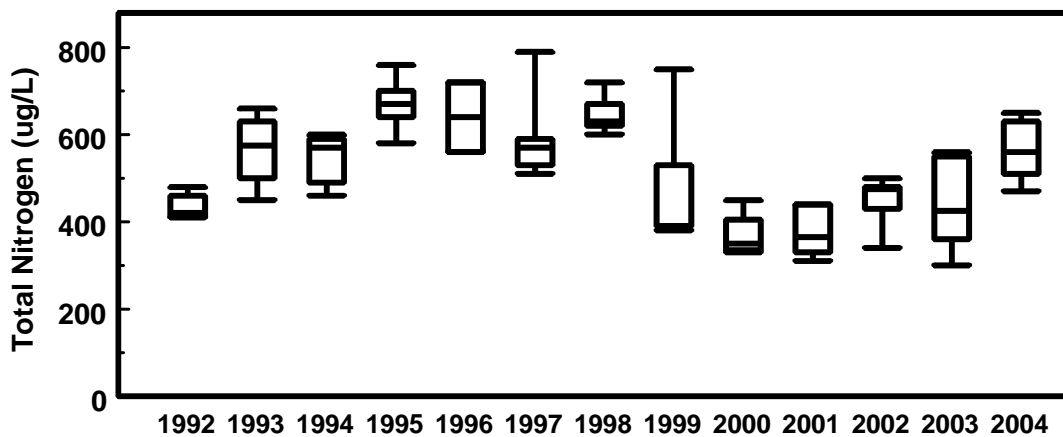


Figure 43. Summer nitrogen trends in Jacomo Lake. No trend, but an interesting pattern nonetheless. Very similar to Blue Springs, which is not surprising.