

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.

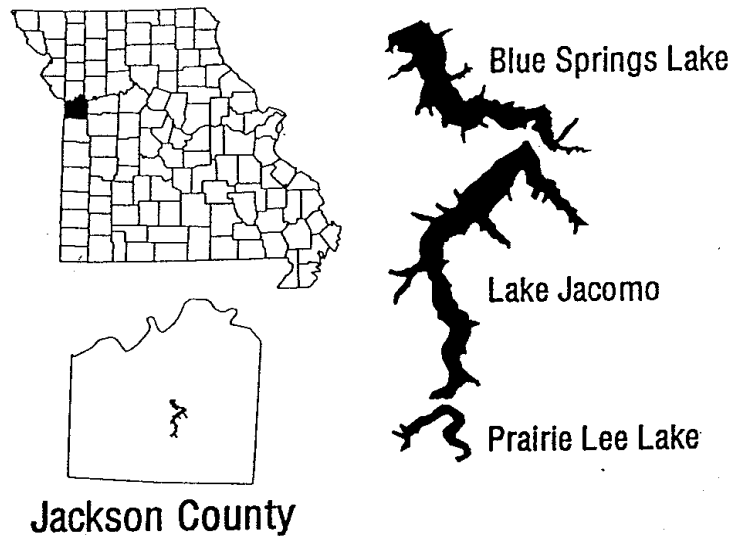


Figure 27. Location of Lake Jacomo.

1999 Results

Figure 28 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids, and Secchi transparency varied in Lake Jacomo during the 1999 sampling season. A brief description of these results are:

- ▶ Parameters showed low to moderate variability.
- ▶ Pattern of decreasing nitrogen is normal.
- ▶ Maximum Secchi transparency was more than twice as deep as other readings. This corresponds to the minimum levels of both algal chlorophyll and inorganic suspended solids.
- ▶ Average values measured for phosphorus and chlorophyll were in the eutrophic range with the phosphorus value being right at the cut off between mesotrophic and eutrophic. Nitrogen values were in the mesotrophic range.

Table 13. Descriptive statistics for Lake Jacomo - 1999.

| Parameters | Average | Median | Minimum | Maximum |
|---------------------------------|---------|--------|---------|---------|
| Chlorophyll ($\mu\text{g/L}$) | 13.8 | 14.7 | 4.4 | 19.8 |
| Nitrogen ($\mu\text{g/L}$) | 488 | 390 | 380 | 750 |
| Phosphorus ($\mu\text{g/L}$) | 26 | 27 | 17 | 32 |
| ISS (mg/L) | 2.3 | 2.4 | 1.1 | 3.2 |
| Secchi (inches) | 66 | 54 | 50 | 118 |

ISS = Inorganic Suspended Solids

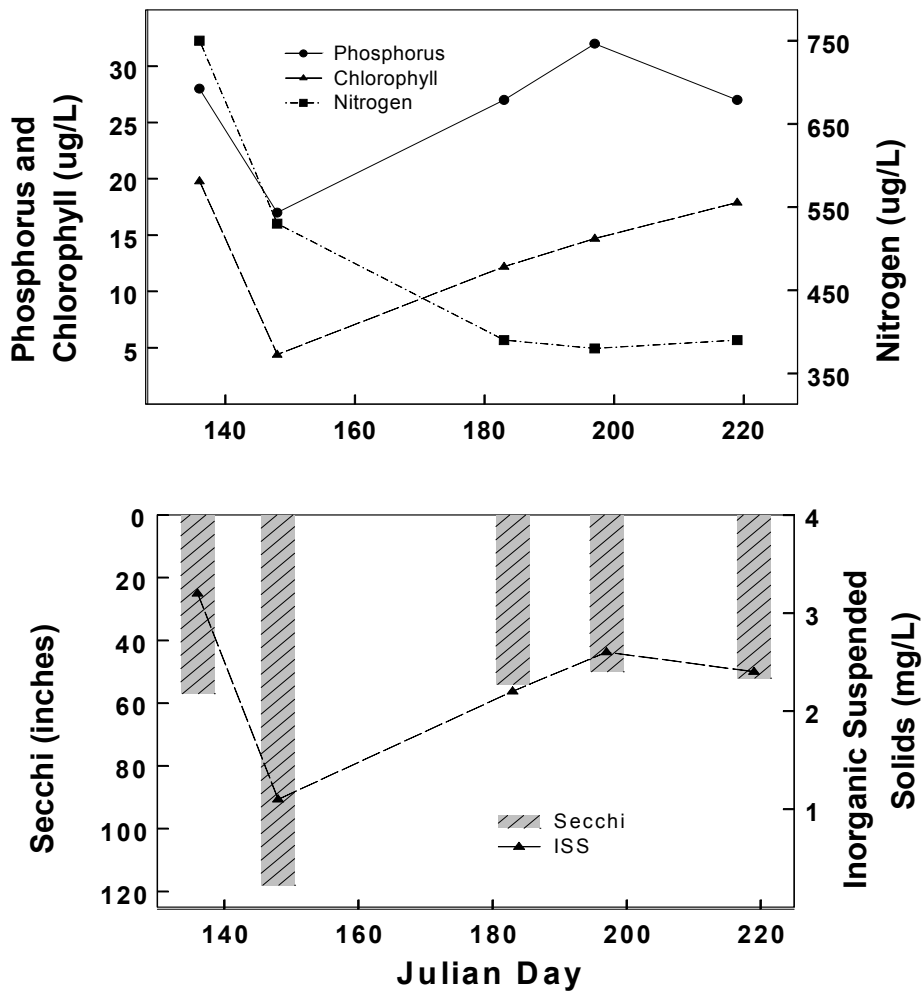


Figure 28. Seasonal fluctuations of parameters for Lake Jacomo - 1999.