

## Prairie Lee Lake

Region - Osage Plains

Prairie Lee Lake is approximately 134 acres in size and is managed by the Jackson County Parks and Recreation Department. The watershed is mostly developed (75%) and the lake has some homes built along the shoreline.

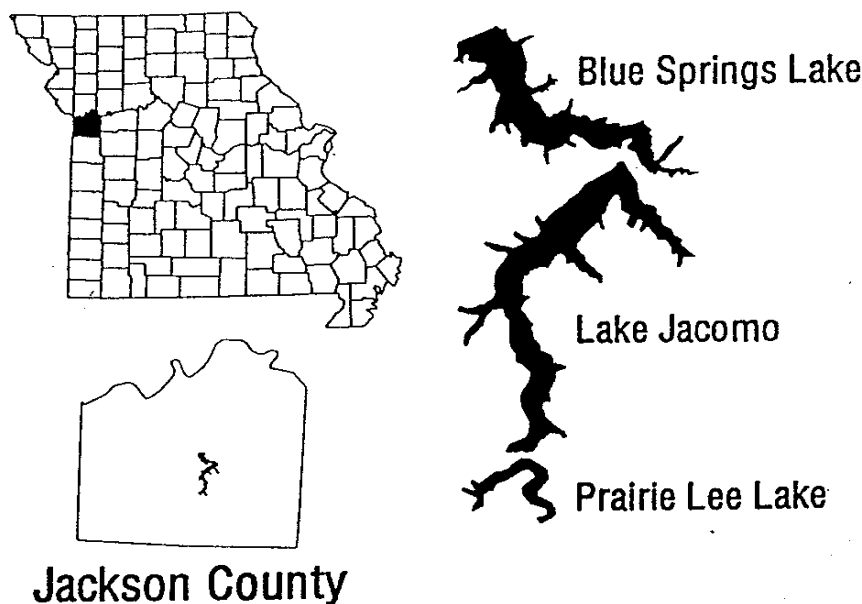


Figure 43. Location of Prairie Lee Lake.

### 1999 Results

Figure 44 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids, and Secchi transparency varied in Prairie Lee Lake during the 1999 sampling season. A brief description of these results are:

- ▶ The pattern displayed by the nutrients were what would normally be expected. Decreasing values through summer were caused by sedimentation while increasing values in fall were due to turnover. (See page 12 for further explanation of turnover.)
- ▶ Last two samples indicate algal bloom conditions. The chlorophyll:phosphorus ratios were  $>1$  which indicates efficient use of the available nutrients by the algae. (See page 7 for further explanation of ratios.)
- ▶ Average values measured for phosphorus, nitrogen and chlorophyll were in the eutrophic range.

Table 21. Descriptive statistics for Prairie Lee Lake - 1999.

Parameters	Average	Median	Minimum	Maximum
Chlorophyll ( $\mu\text{g/L}$ )	34.7	19.5	12.7	88.6
Nitrogen ( $\mu\text{g/L}$ )	651	630	340	900
Phosphorus ( $\mu\text{g/L}$ )	37	39	20	47
ISS (mg/L)	3.2	2.7	1.2	8.0
Secchi (inches)	36	34	28	48

ISS = Inorganic Suspended Solids

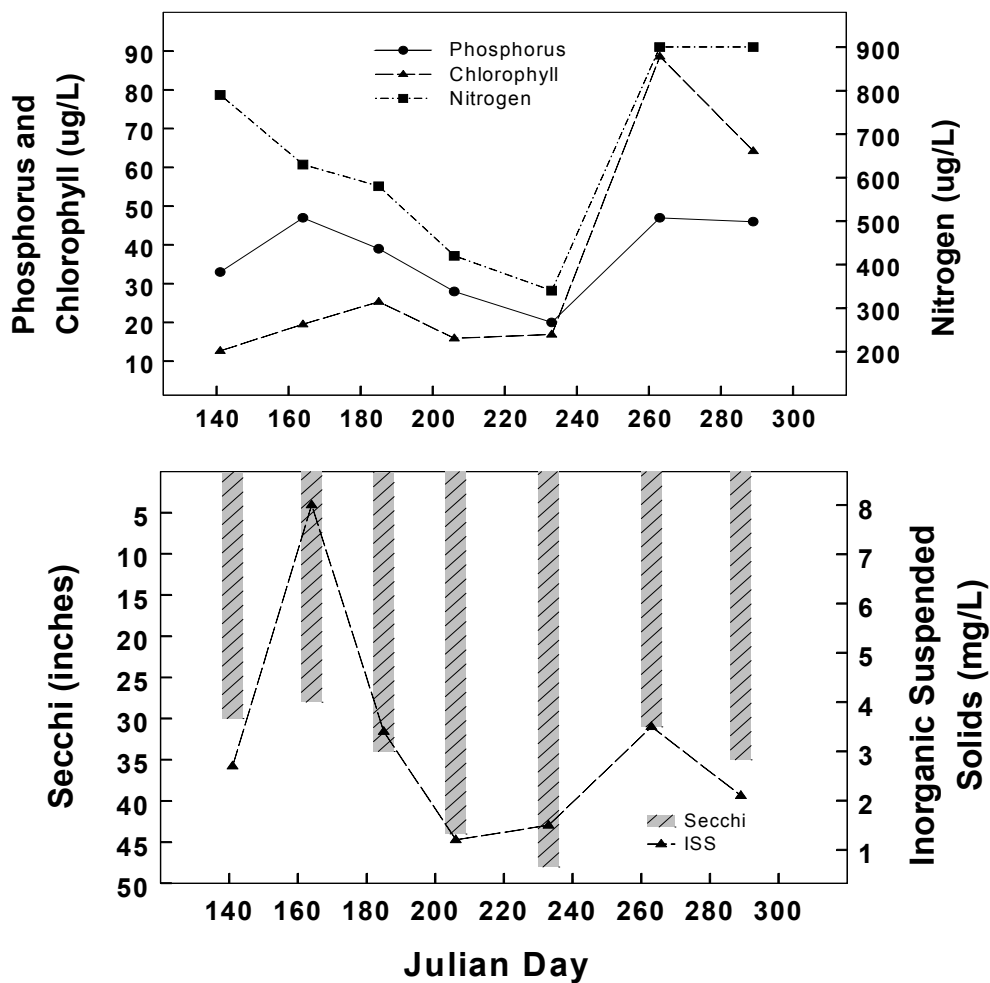


Figure 44. Seasonal fluctuations of the parameters for Prairie Lee Lake - 1999.