

Little Dixie Lake

Ozark Border Region

Little Dixie Lake, located in Callaway County, is owned and managed by the Missouri Department of Conservation. This 200-acre lake has a watershed of 2,315 acres in size that is approximately 15% forest, 35% grassland and 35% row crop.

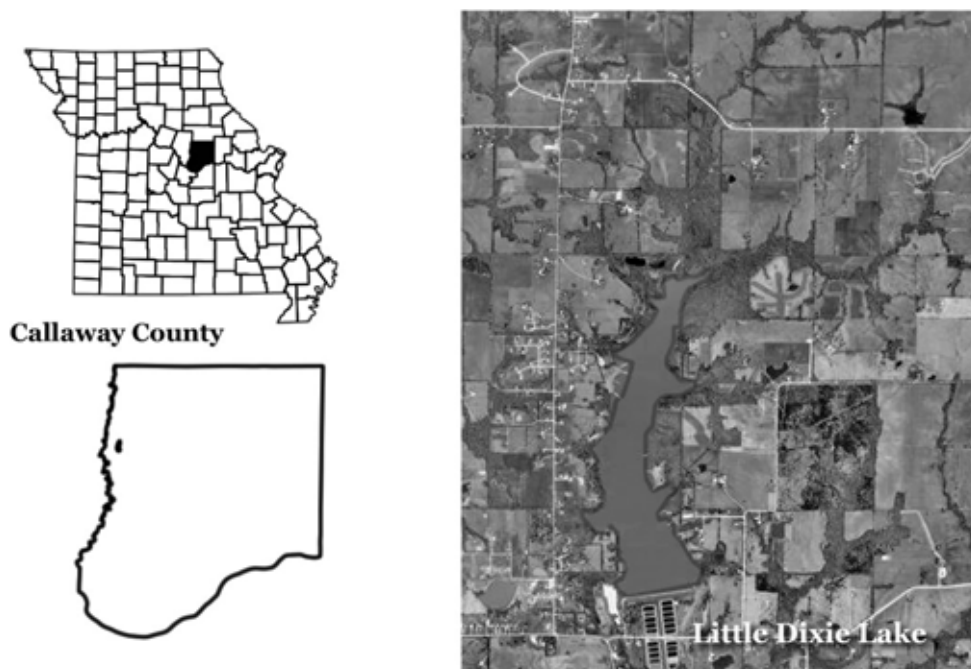


Figure 45. Location of Little Dixie Lake.

2003 Results

Figure 46 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Little Dixie Lake during the 2003 sampling season. The descriptive statistics appear in Table 21. A brief description of these results:

- 6 samples were collected between April 14 and September 3
- All values are similar to the previous two years' data
- Chlorophyll, nitrogen and phosphorus concentrations tended to increase throughout the sampling season, with all displaying high variability
- Little Dixie Lake is eutrophic based on chlorophyll, nitrogen and phosphorus concentrations

Table 21. Descriptive statistics for Little Dixie Lake - 2003.

	Secchi (inches)	TP ($\mu\text{g/L}$)	TN ($\mu\text{g/L}$)	CHL ($\mu\text{g/L}$)	ISS (mg/L)
# of Samples	5	6	6	6	4
Median	33	56	750	17.8	3.8
Minimum	23	27	360	4.2	2.9
Maximum	46	98	1020	47.6	6.1
Geometric Mean	33	52	690	16.2	3.9

Samples were collected between April 14 and September 3

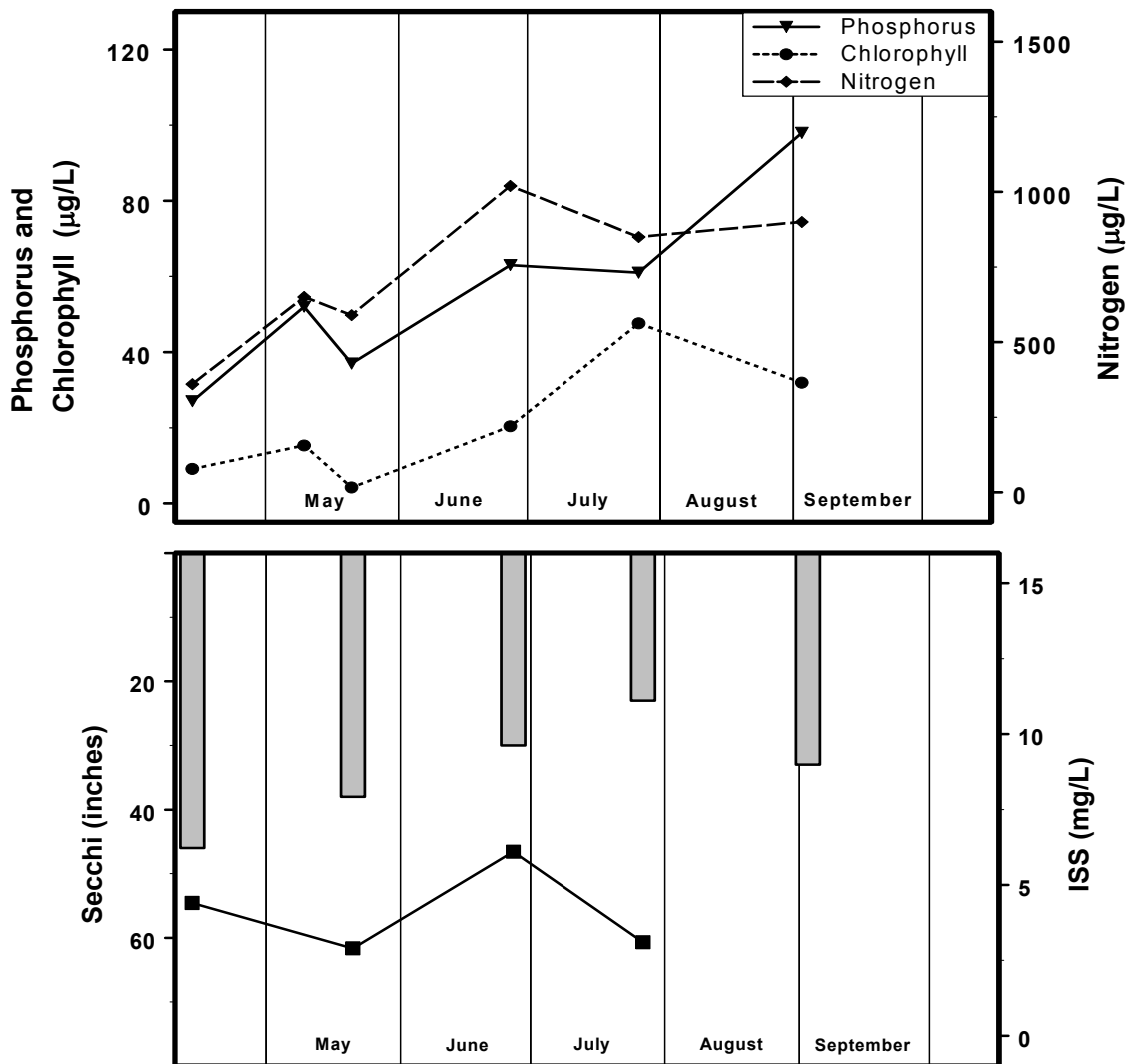


Figure 46. Seasonal fluctuations of parameters in Little Dixie Lake – 2003. Bars represent Secchi, line represents ISS.