

## Little Dixie Lake - 2001 Data

Ozark Border Region

Little Dixie Lake is located in Callaway County and 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.

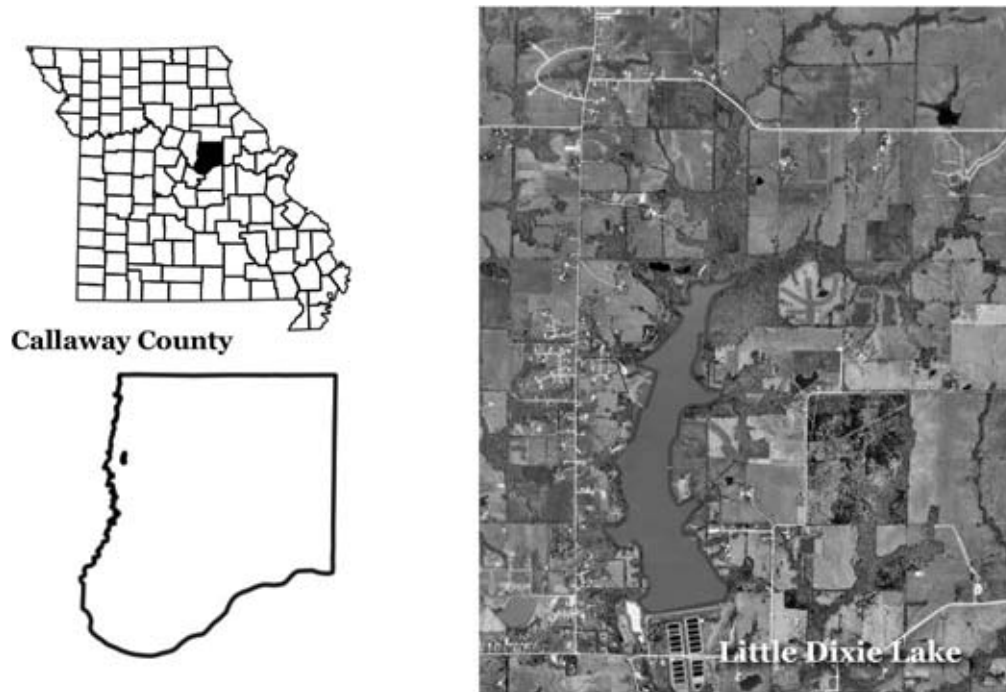


Figure 36. Location of Little Dixie Lake.

### 2001 Results

Figure 37 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Little Dixie Lake during the 2001 sampling season. The descriptive statistics appear in Table 16. A brief description of these results:

- Six samples were collected from April 19 to August 20.
- Values were consistent across the sampling season, with only ISS showing an overall decrease during the sampling period. This pattern roughly matches the 2000 pattern of decreasing values over time.
- Little Dixie Lake is eutrophic based on geometric means of chlorophyll, nitrogen and phosphorus values.
- Nutrients and ISS values were at the highest levels on the first sample date. This probably reflects non-point source runoff associated with springtime rains.

Table 16. Descriptive statistics for Little Dixie Lake - 2001.

Parameters	# of Samples	Geometric			
		Mean	Minimum	Maximum	Median
Secchi Transparency (inches)	6	27	19	35	27
Phosphorus ( $\mu\text{g/L}$ )	6	50	37	81	48
Nitrogen ( $\mu\text{g/L}$ )	6	798	650	1200	750
Chlorophyll ( $\mu\text{g/L}$ )	5	16.9	8.3	23.2	18.3
ISS (mg/L)	5	3.0	1.7	5.6	3.0

ISS=Inorganic Suspended Solids

Samples were collected between April 19 and August 20

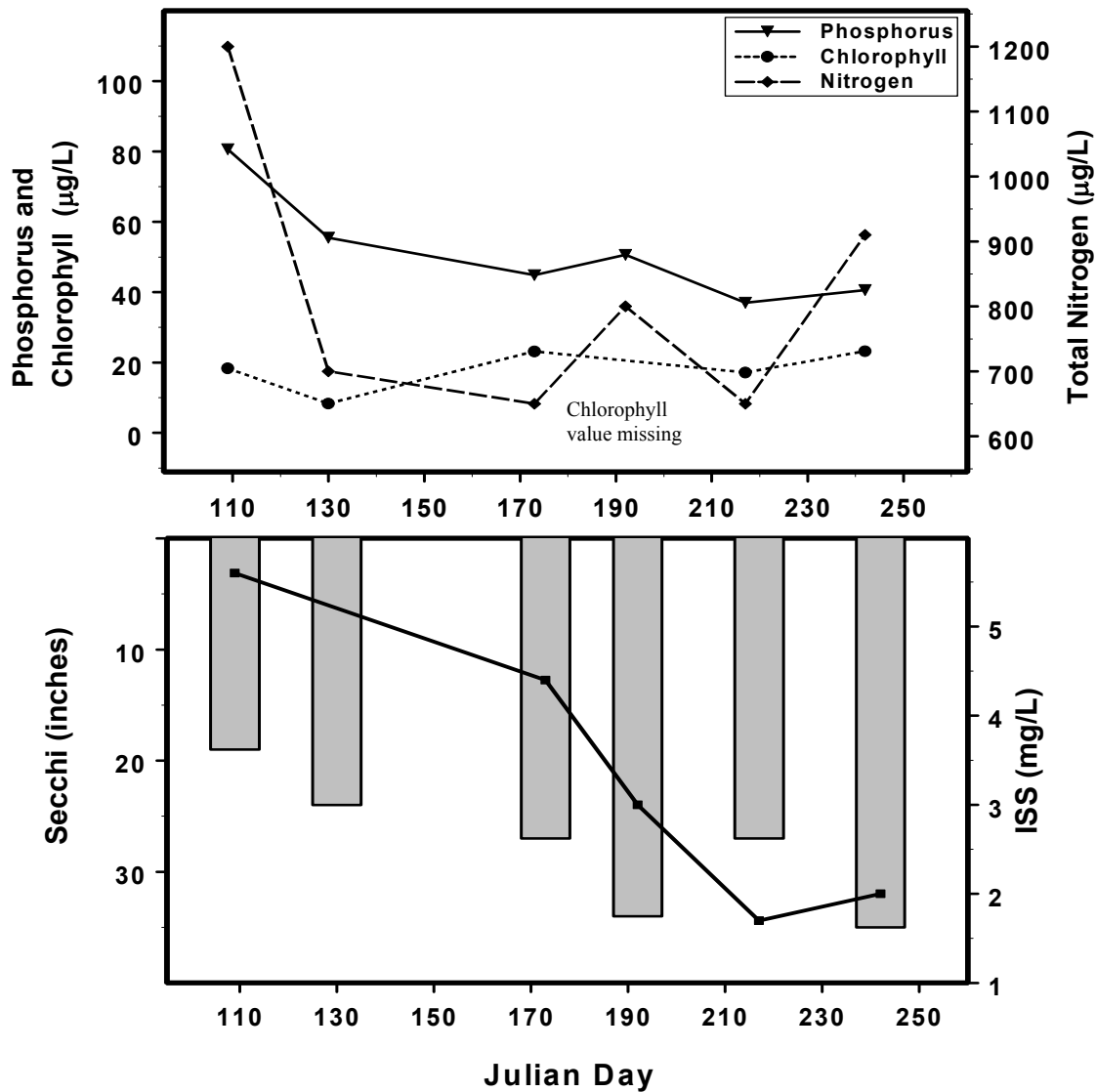


Figure 37. Seasonal fluctuations of parameters in Little Dixie Lake – 2001. Bars represent Secchi, line represents ISS.