

Butler City Lake

Osage Plains Region

Butler City Lake provides drinking water for the City of Butler. This 55 acre lake has a very large, 2000 acre watershed. Lake construction was completed in 1930.

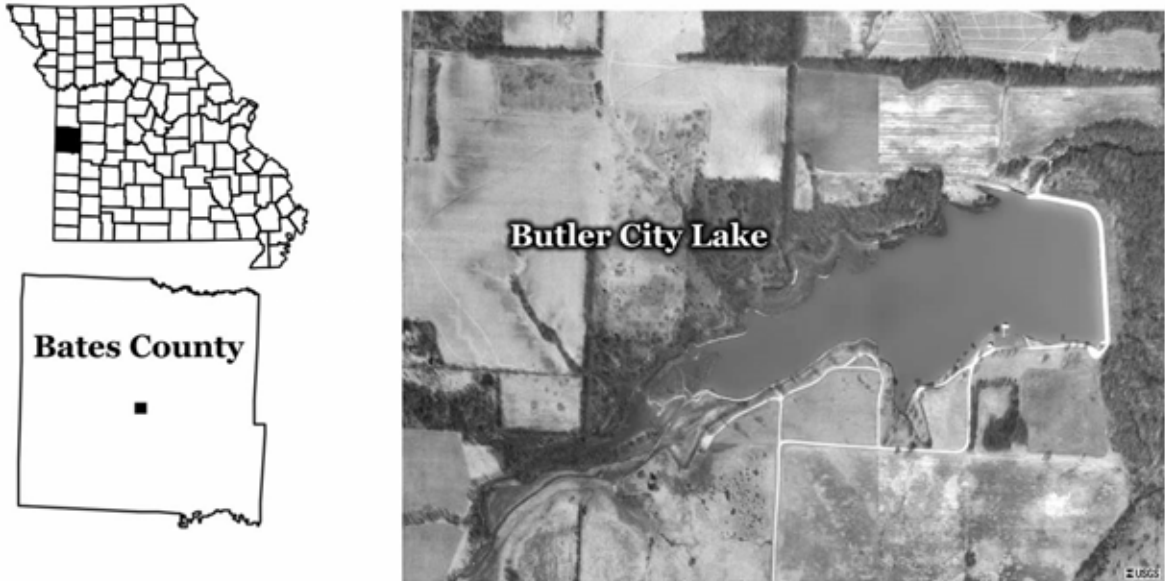


Figure 26. Location of Butler City Lake.

2003 Results

Figure 27 shows how the parameters phosphorus, nitrogen, algal chlorophyll, and Secchi transparency varied in Butler Lake during the 2003 sampling season. The descriptive statistics appear in Table 13. A brief description of these results:

- Six samples were collected from May 12 to September 14
- Butler City Lake was treated with copper sulfate on at least 2 occasions during the sampling season - (copper sulfate is used to control algae)
- The parameters were relatively stable over the sample season
- Butler City Lake was eutrophic based on nitrogen and phosphorus concentrations and hypereutrophic based on chlorophyll concentrations
- 2003 was the first year of LMVP involvement for Butler City Lake

Table 13. Descriptive statistics for Butler City Lake - 2003.

	Secchi (inches)	TP (µg/L)	TN (µg/L)	CHL (µg/L)	ISS (mg/L)
# of Samples	4	6	6	6	6
Median	22	70	950	46.8	4.8
Minimum	16	62	790	26.6	3.6
Maximum	26	88	1020	51.1	6.4
Geometric Mean	21	71	934	42.1	4.7

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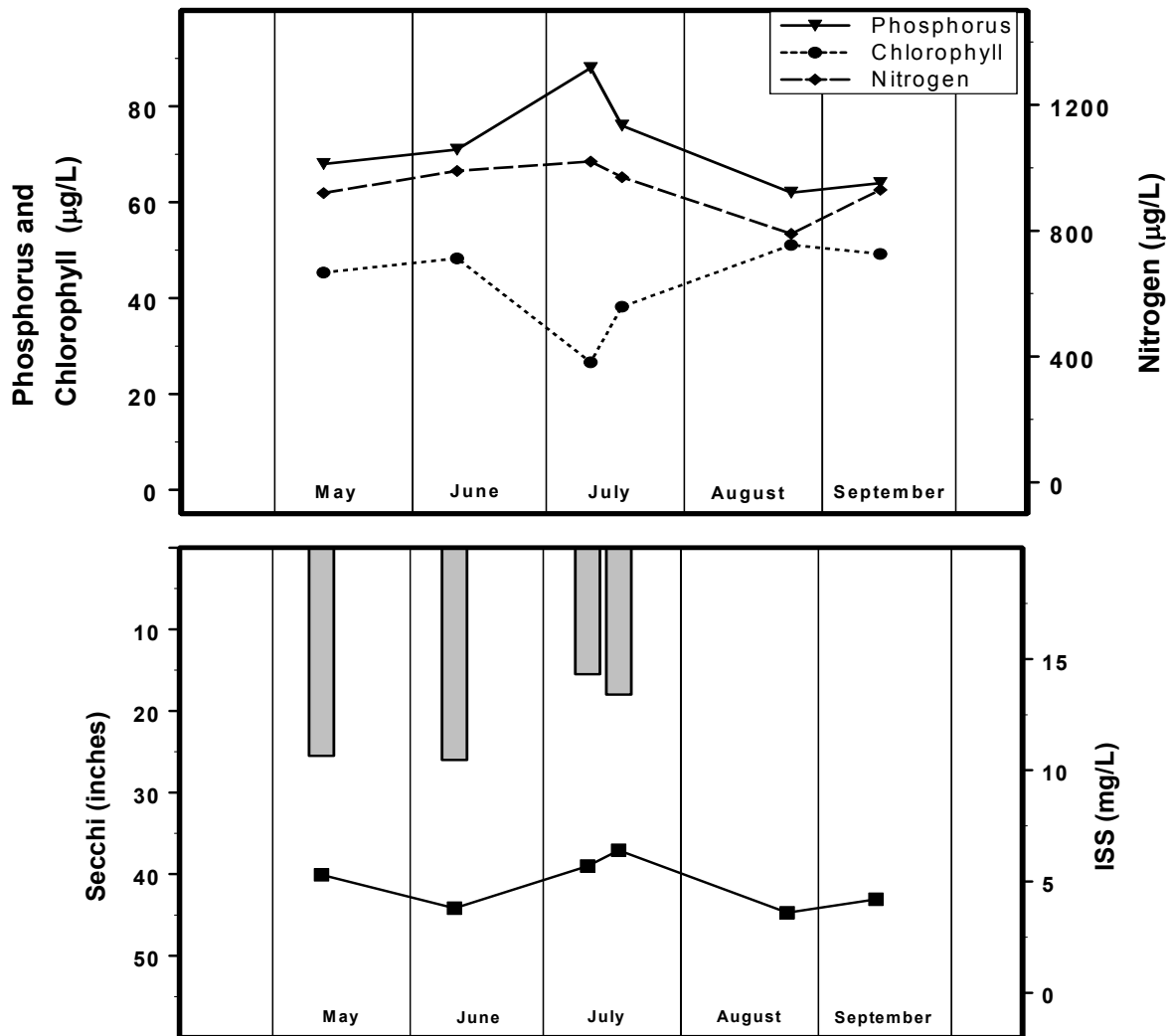


Figure 27. Seasonal fluctuations of parameters for Butler City Lake – 2003. Bars represent Secchi, line represents ISS.