

Binder Lake is a 155-acre lake located within a 650-acre park. The lake is jointly managed by the Missouri Department of Conservation and the city of Jefferson City. Overall, 26% of Binder Lake's 3900-acre watershed is cropland and 18% is urban.

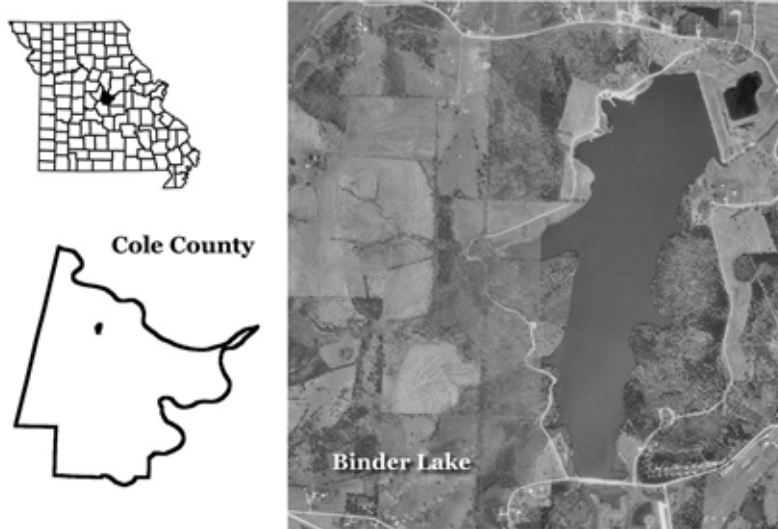


Figure 12. Location of Binder Lake.

2003 Results

Figure 13 shows how the parameters nitrogen, phosphorus, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Binder Lake during 2003. The descriptive statistics appear in Table 5. A brief description of the results:

- Five samples were collected between May 12 and September 7
- The May 12 sample was taken from the dock visible in the cove due West of the dam, all other samples were taken from the dam
- 2003 geometric mean values for chlorophyll and inorganic suspended solids were about twice as high as 2002 values
- Inorganic suspended solids geometric mean was double that of last year, due to the very high concentration on August 21
- Binder Lake was eutrophic in 2003, based on concentrations of nitrogen and phosphorus, and hypereutrophic based on chlorophyll concentration

Table 5. Descriptive statistics for Binder Lake - 2003.

Parameters	Secchi (inches)	TP ($\mu\text{g/L}$)	TN ($\mu\text{g/L}$)	CHL ($\mu\text{g/L}$)	ISS (mg/L)
# of Samples	5	5	5	5	5
Median	21	65	1000	57.1	2.9
Minimum	20	43	630	23.7	1.4
Maximum	40	86	1140	62.2	24.3
Geometric Mean	25	62	893	44.9	4.4

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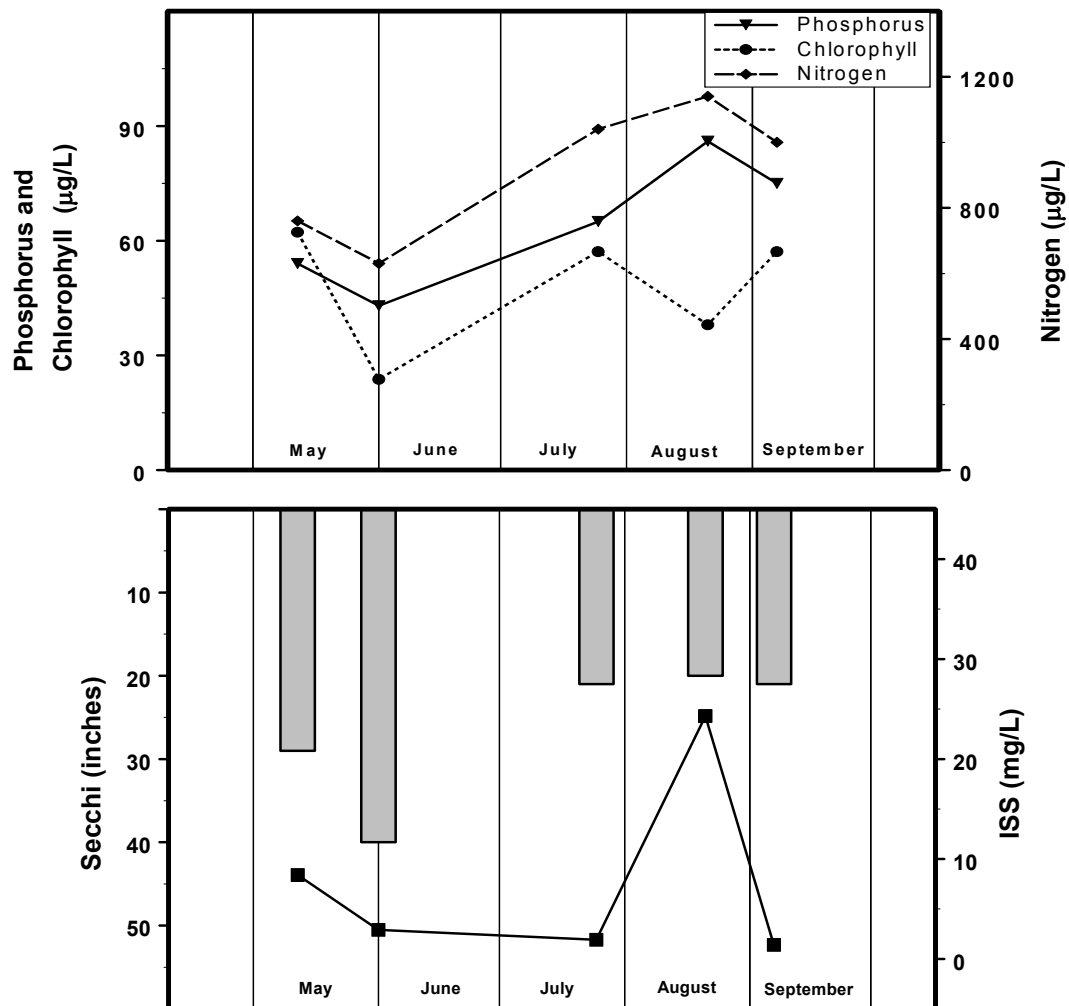


Figure 13. Seasonal Fluctuations of parameters for Binder Lake – 2003. Bars represent Secchi, line represents ISS.