

# Binder Lake

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.

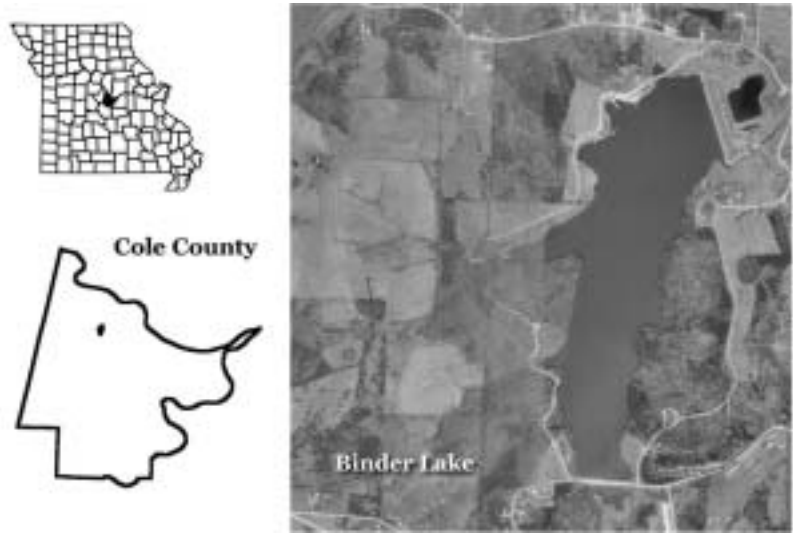


Figure 14. Location of Binder Lake

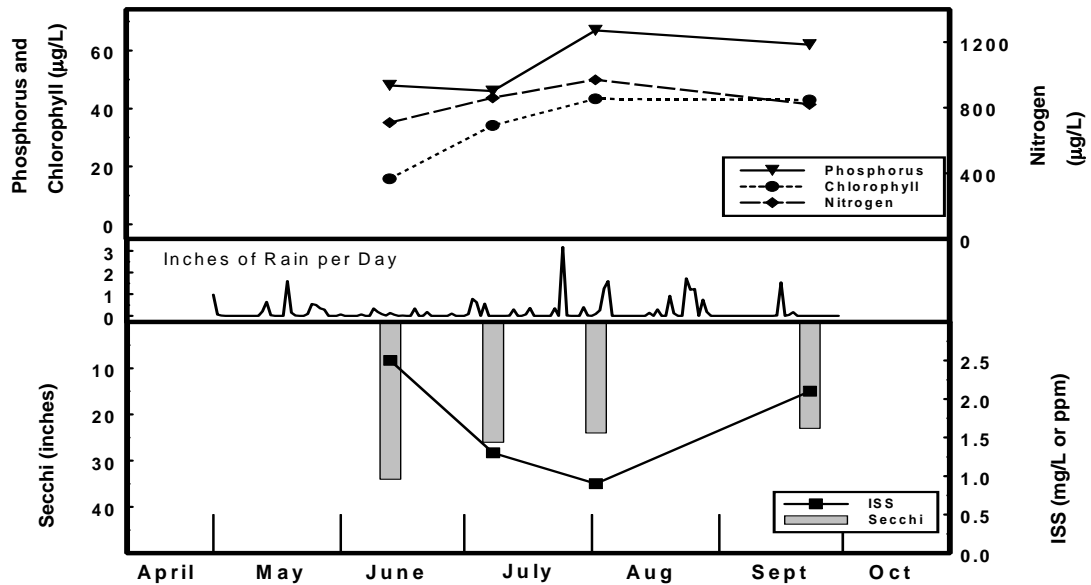


Figure 15. Seasonal fluctuations of parameters for Binder Lake – 2004

Table 2. Descriptive statistics for Binder Lake – 2004

	<b>Secchi (inches)</b>	<b>TP (ug/L)</b>	<b>TN (ug/L)</b>	<b>CHL (ug/L)</b>	<b>ISS (mg/L)</b>
<b>Geometric Mean</b>	26	55	835	31.6	1.6
<b>Minimum</b>	23	46	710	15.7	0.9
<b>Maximum</b>	34	67	970	43.3	2.5
<b>Number of Samples</b>	4	4	4	4	4

2004 Results

Figure 15 shows how the parameters nitrogen, phosphorus, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Binder Lake during 2004. The descriptive statistics appear in Table 2.

A brief description of the results:

- Only four samples were collected from Binder Lake this year, all from the fishing dock, which is located near the dam.
- All parameters were relatively consistent throughout 2004, possibly due to the abbreviated sampling season.
- ISS values were low in 2004, with the Secchi transparency being determined by algal biomass (as measured by chlorophyll concentration).
- Given the agriculture and urban land cover in the watershed, the nutrient concentrations observed are expected



Figure 16. ISS trends in Binder Lake. There are no apparent trends for any of the parameters in Binder Lake.