

# Blue Springs Lake

Blue Springs Lake, located in Fleming Park, is managed by the Jackson County Parks and Recreation Department. This 727 acre lake has a watershed that is approximately 20,659 acres in size, 50% of which is urban. Another 6% of Blue Springs Lake's watershed consists of water (Lake Jacomo and Prairie Lee Lake), the remaining area is divided among forest, grassland and row crops. Being the third lake in a series of three, Blue Springs Lake is buffered from a large portion of its watershed.

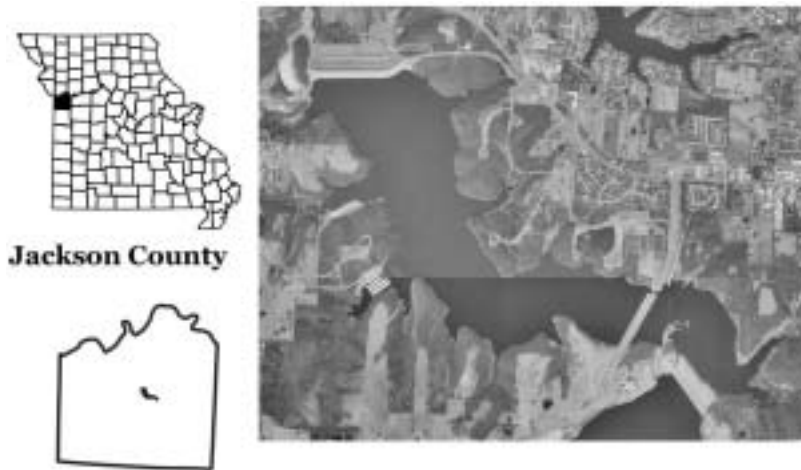


Figure 17. Location of Blue Springs Lake

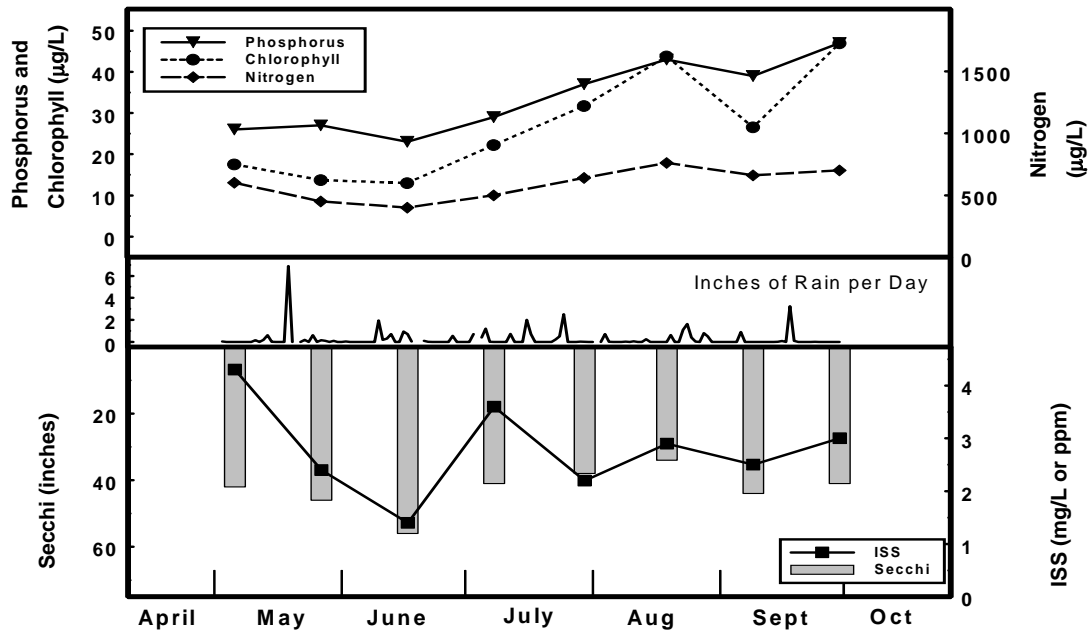


Figure 18. Seasonal fluctuations of parameters for Blue Springs Lake – 2004

Table 3. Descriptive statistics for Blue Springs 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>	42	33	576	24.2	2.7
<b>Minimum</b>	34	23	400	13.0	1.4
<b>Maximum</b>	56	47	760	46.9	4.3
<b>Number of Samples</b>	8	8	8	8	8

2004 Results

Figure 18 shows how the parameters nitrogen, phosphorus, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Blue Springs Lake during 2004. The descriptive statistics appear in Table 3.

A brief description of the results:

- Nutrients and chlorophyll follow the same general increasing trend throughout the season.
- The amount of algae per unit of phosphorus increased steadily from June through October, with the exception of the mid-September sampling.
- High chlorophyll concentrations relative to phosphorus on the mid-August and early October sampling dates indicates potential bloom conditions.

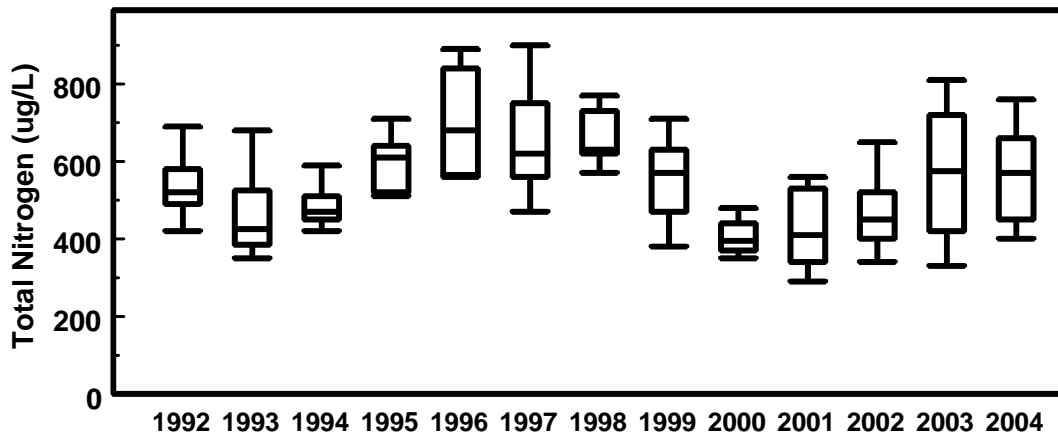


Figure 19. Nitrogen trends in Blue Springs Lake. No apparent trend, but an interesting pattern nonetheless. Very similar to Jacomo, which is not surprising.