

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.



Jackson County



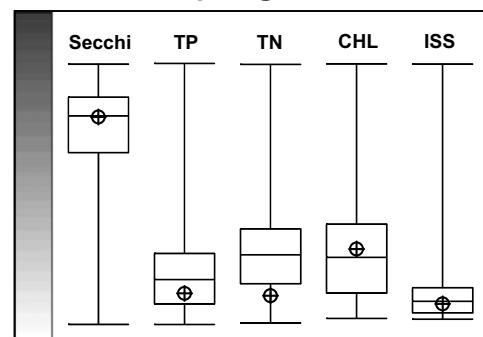
Location of Blue Springs Lake

Descriptive statistics for Blue Springs Lake – 2005

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
Geometric Mean	39	29	411	16.1	2.7
Minimum	30	24	250	8.3	1.3
Maximum	49	35	640	32.7	4.6
Number of Samples	8	8	8	8	8

- With the exception of nitrogen, all parameters were within the middle 50% of the Missouri lake rankings, indicating that water quality in Blue Springs is similar to many lakes in the state.
- Nitrogen values were low, ranking in the bottom 25th percentile relative to other lakes in Missouri.
- All parameters showed normal amounts of variation during the 2005 sample season.

Relative Rank for Blue Springs Lake

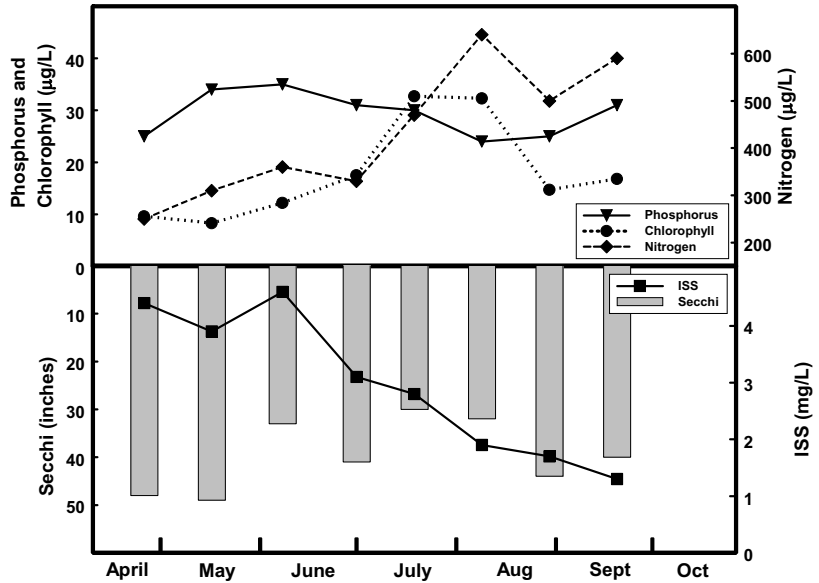


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Seasonal fluctuations of parameters for Blue Springs Lake – 2005

Nitrogen increased during the summer to maximum values in July and August, while phosphorus and ISS showed decreases. Inputs to the lake would normally contain both nutrients (as well as ISS); it is possible that increases in nitrogen were not related to inflows but instead a result of atmospheric nitrogen fixation by blue-green algae.

Secchi values were relatively stable during the year, varying by only 19 inches. Water clarity was a function of both ISS and algal biomass early in the season, with increases in algal biomass making up for the loss of ISS as the season progressed.



Total Phosphorus and Secchi trends in Blue Springs Lake

Blue Springs Lake is one of the original LMVP Lakes, and has been monitored every year since 1994

Phosphorus concentrations increased in the mid 90's, decreased in the late 90's, then increased again in the mid 2000's. There is no long term trend apparent, however.

Minimum Secchi values each year are consistently at around 30 inches. Maximum concentrations, however, vary considerably from year to year.

