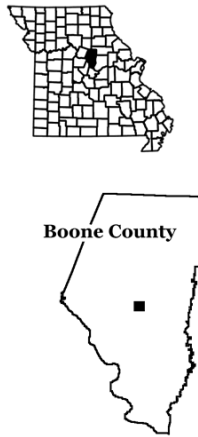


# Stephens Lake

Stephens Lake is a 10 acre lake in Columbia’s Stephens Park (Boone County). A \$2.5 million reconstruction project was completed in 2004 that included dredging, beach construction, numerous plantings, etc. This lake is periodically stocked for fishing by the Missouri Department of Conservation.



Location of Stephens Lake

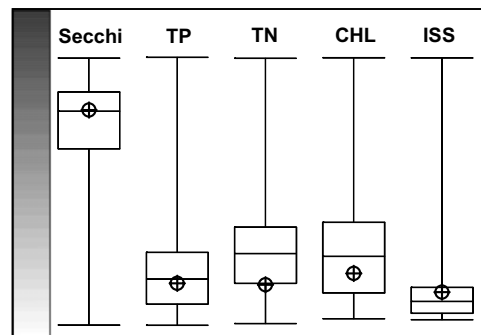
## Descriptive statistics for Stephens Lake – 2005

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
<b>Geometric Mean</b>	<b>38</b>	<b>36</b>	<b>493</b>	<b>10.6</b>	<b>4.3</b>
<b>Minimum</b>	31	27	310	2.7	3.4
<b>Maximum</b>	45	44	620	25.4	5.9
<b>Number of Samples</b>	5	5	5	5	5

Stephens Lake is located in an urban area, and receives much of its water from runoff. This lake also allows swimming, so well water is pumped into the lake throughout the summer to ensure acceptable water quality.

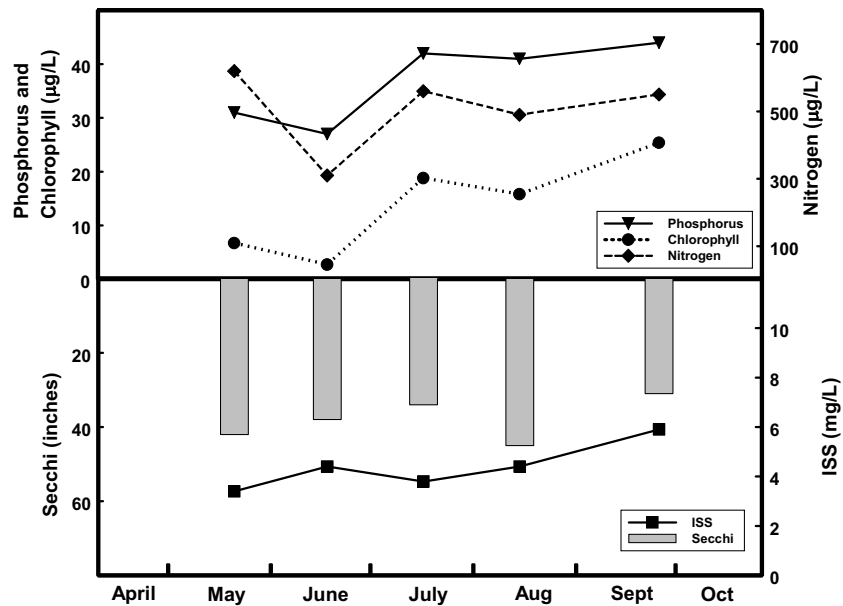
As a result, the concentrations of nitrogen and algae are lower than observed in most Missouri lakes. Suspended solids concentrations are just above the Missouri median, and phosphorus concentrations are very near the median.

### Relative Rank for Stephens Lake



# Stephens Lake

## Seasonal fluctuations of parameters for Stephens Lake – 2005



Chlorophyll concentrations ranged from an early season low of less than 3 ug/L to an end of season high of 25 ug/L. Chlorophyll very closely tracks the concentrations of phosphorus in the lake, not surprising since phosphorus is the nutrient that most often limits the growth of algae.

Secchi transparency values ranged from 31 inches to 45 inches during 2005, a difference of 14 inches. These values are all rather similar, especially considering the range of chlorophyll concentrations observed.

2005 was the first year that Stephens Lake was monitored for the LMVP.