

Long Branch Lake

Glacial Plains Region

Long Branch Lake is a large lake (2,435 acres) located in Macon County. Grassland/pasture, crop land and forest make up 37%, 34% and 22% of the watershed, respectively. The lake is an important recreational resource as well as a drinking water reservoir.

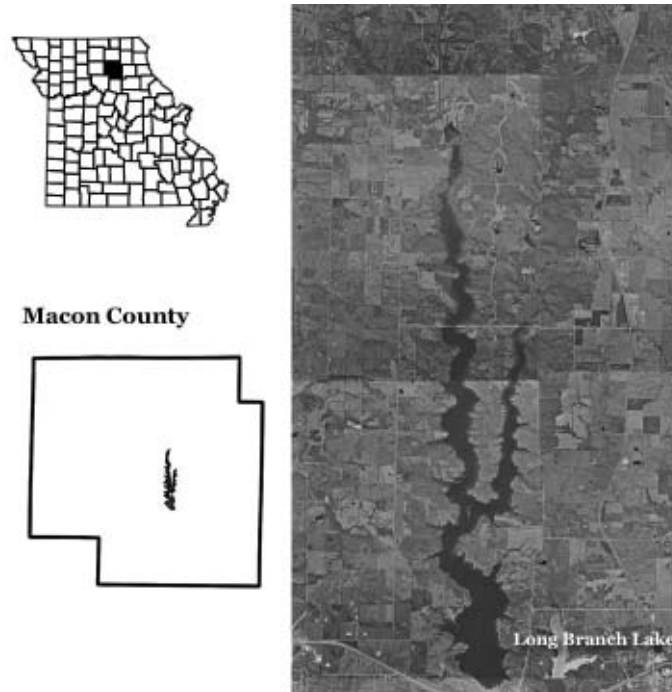


Figure 35. Location of Long Branch Lake.

2002 Results

Figure 36 shows how the parameters phosphorus, nitrogen, inorganic suspended solids and Secchi transparency varied in Long Branch Lake during the 2002 sampling season. The descriptive statistics appear in Table 14. A brief description of these results:

- 4 samples were collected between July 30 and October 3.
- Nitrogen and phosphorus follow similar patterns throughout the season.
- Due to mechanical failure, chlorophyll samples were lost.
- Secchi transparency values fluctuate with ISS values.
- Based on geometric means of nitrogen and phosphorus, Long Branch Lake was eutrophic.

Table 14. Descriptive statistics for Long Branch Lake - 2002.

Parameters	# of Samples	Geometric			
		Mean	Minimum	Maximum	Median
Secchi Transparency (inches)	4	28	22	42	26
Phosphorus ($\mu\text{g/L}$)	4	38	27	56	38
Nitrogen ($\mu\text{g/L}$)	4	790	700	950	765
Chlorophyll ($\mu\text{g/L}$)	-	-	-	-	-
ISS (mg/L)	4	5.2	2.5	7.3	6.4

ISS=Inorganic Suspended Solids

Samples were collected between July 30 and October 3

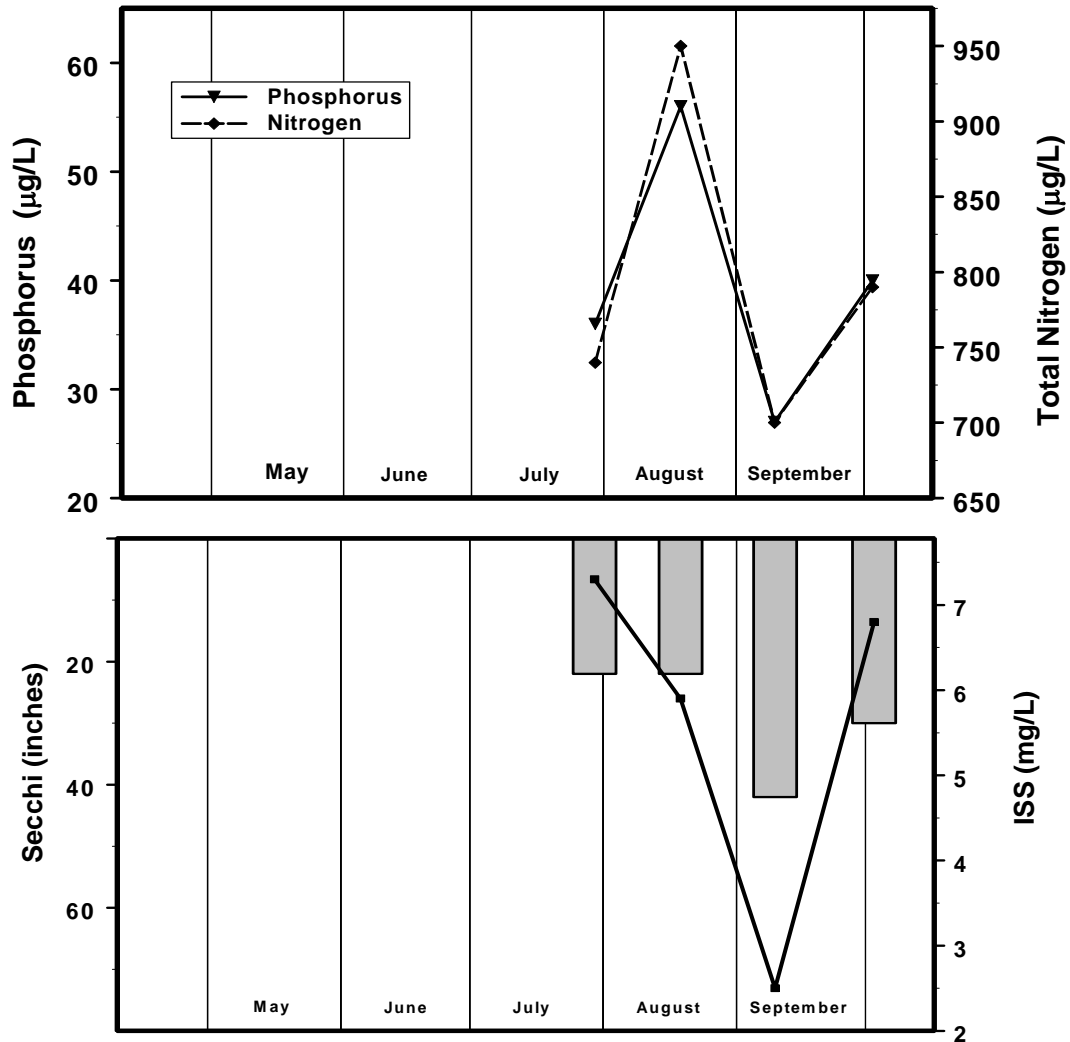


Figure 36. Seasonal fluctuations of parameters for Long Branch Lake - 2002. Bars represent Secchi, line represents ISS.