

Pomme de Terre Lake

Ozark Highlands Region

Pomme de Terre is a large lake (7,790 acres) located in Hickory County. Completed in 1961, Pomme de Terre is owned and operated by the U.S. Army Corps of Engineers. Grassland/pasture, cropland and forest make up 56%, 7% and 32% of the 403,448-acre watershed, respectively. The lake is an important recreational resource.

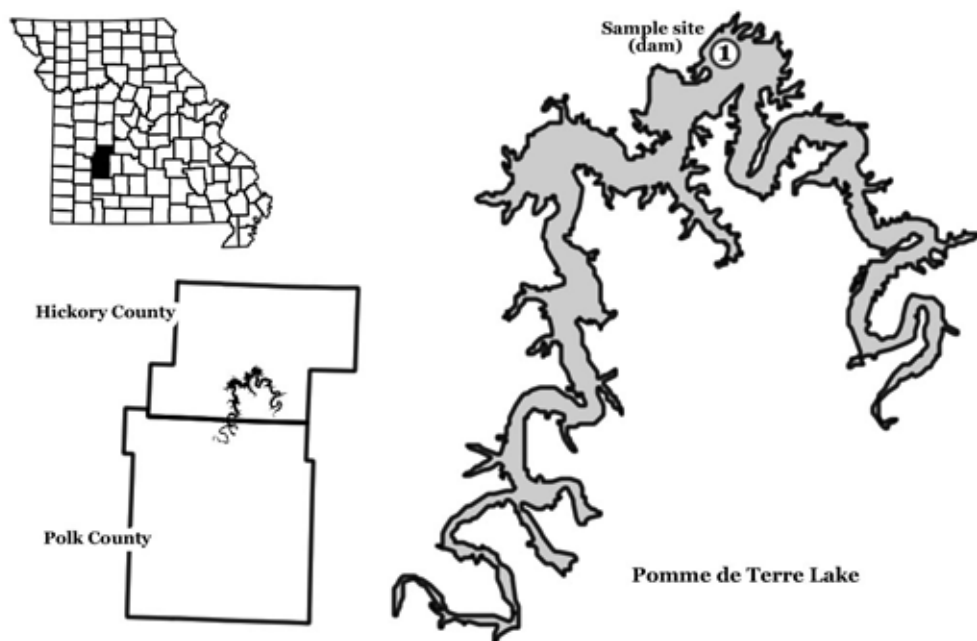


Figure 57. Location of Pomme de Terre Lake and its sample site.

2003 Results

Figure 58 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Pomme de Terre Lake during the 2003 sampling season. The descriptive statistics appear in Table 20. A brief description of these results:

- Pomme de Terre Lake was sampled 9 times from May 29 to August 22
- There was an apparent algae bloom during mid to late July, as chlorophyll concentrations during that time equaled or exceeded phosphorus concentrations
- Secchi transparency generally decreased throughout the sampling season and generally reflected the chlorophyll concentration
- Concentrations of inorganic suspended sediment were negligible
- Pomme de Terre Lake was eutrophic in 2003, based on the geometric mean concentrations of chlorophyll and nitrogen and mesotrophic based on phosphorus concentration

Table 28. Descriptive statistics for Pomme de Terre Lake – 2003

	Secchi (inches)	TP ($\mu\text{g/L}$)	TN ($\mu\text{g/L}$)	CHL ($\mu\text{g/L}$)	ISS (mg/L)
# of Samples	9	9	9	9	9
Median	72	19	580	12.0	0.9
Minimum	50	15	520	7.9	0.6
Maximum	121	30	630	22.9	1.3
Geometric Mean	77	19	571	12.9	1.0

Samples were collected between May 29 to August 22

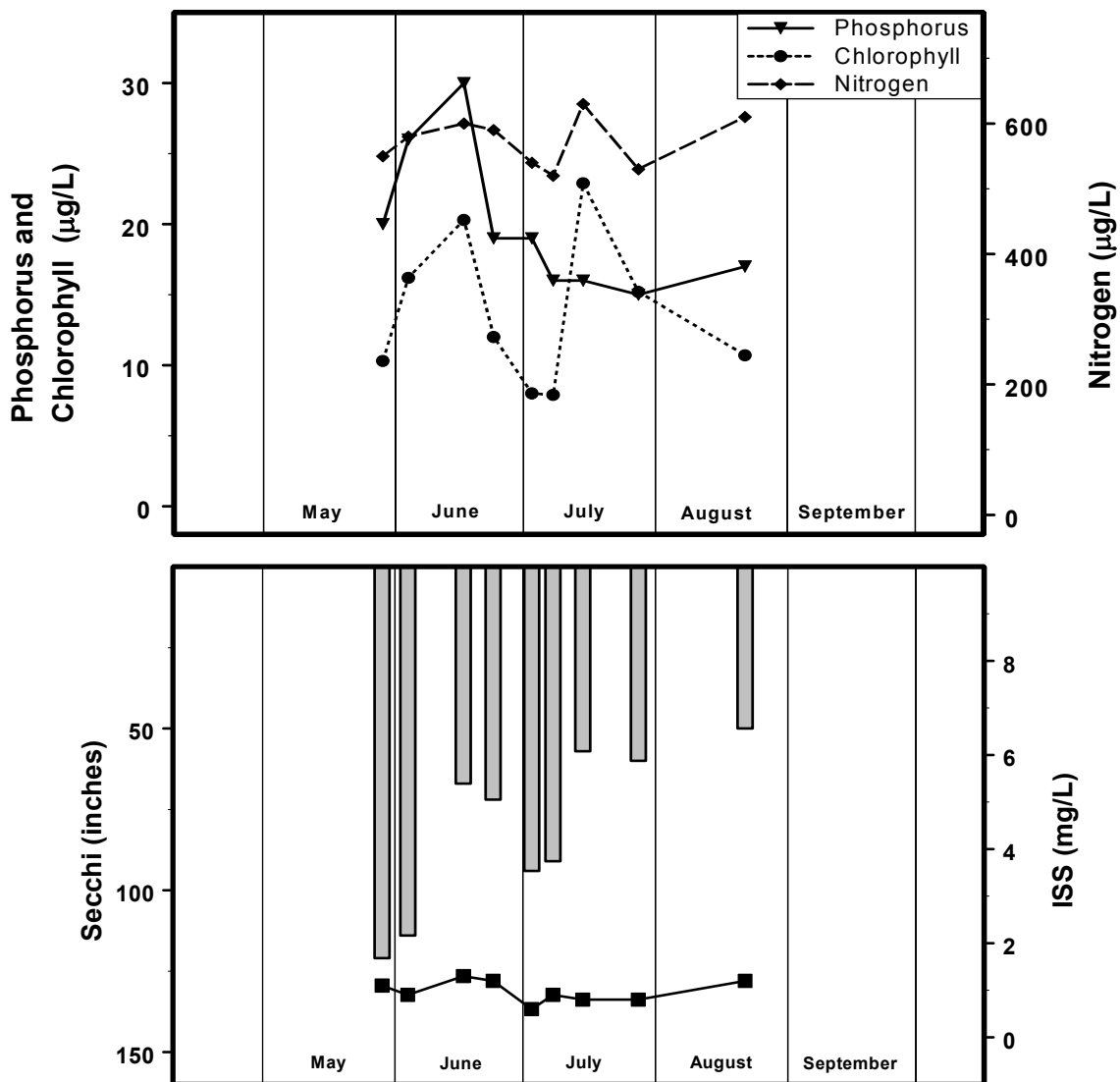


Figure 58. Seasonal fluctuations of parameters in Pomme de Terre Lake – 2003. Bars represent Secchi, line represents ISS.