

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.

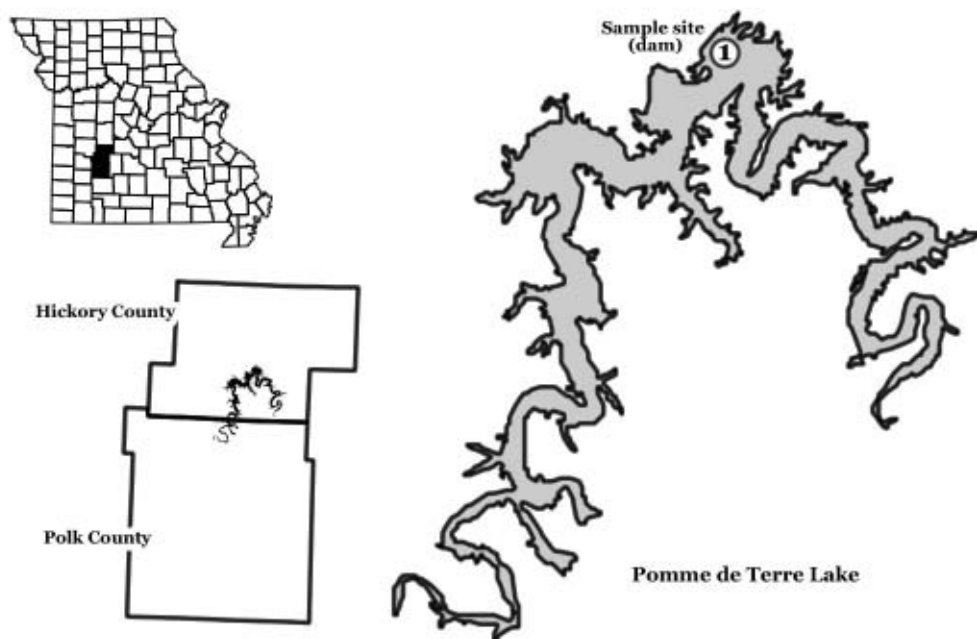


Figure 44. Location of Pomme de Terre Lake and its sample site.

2002 Results

Figure 45 shows how the parameters phosphorus, nitrogen, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Pomme de Terre Lake during the 2002 sampling season. The descriptive statistics appear in Table 20. A brief description of these results:

- Pomme de Terre Lake was sampled 10 times from April 25 to October 7
- There was no seasonal pattern evident.
- Variability of nitrogen and ISS is low within the sampling season (note scale on graphs).
- Low chlorophyll and ISS values on April 25 led to a 126 inch Secchi value
- The 2002 Secchi geometric mean is 12 inches less than in 2001, though the geometric means of other parameters are similar.
- Pomme de Terre was eutrophic based on nitrogen and chlorophyll geometric means and mesotrophic based on the geometric mean of phosphorus.

Table 20. Descriptive statistics for Pomme de Terre Lake – 2002

Parameters	# of Samples	Geometric Mean	Minimum	Maximum	Median
Secchi Transparency (inches)	10	62	47	126	56
Phosphorus ($\mu\text{g/L}$)	10	22	16	36	22
Nitrogen ($\mu\text{g/L}$)	10	526	410	650	510
Chlorophyll ($\mu\text{g/L}$)	10	12.1	1.6	22.1	14.6
ISS (mg/L)	10	0.6	0.2	1.0	0.7

ISS=Inorganic Suspended Solids

Samples were collected between April 25 and October 7

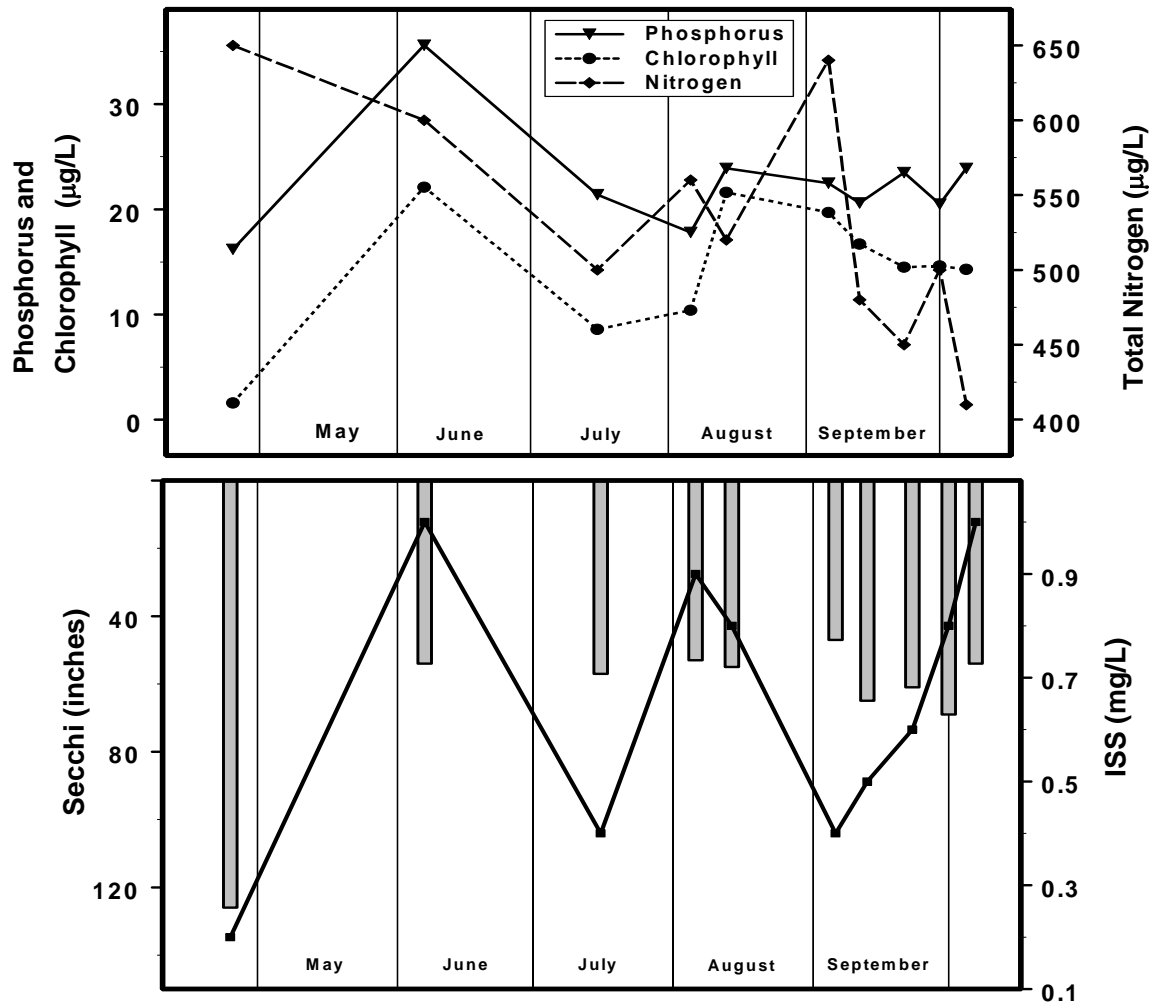


Figure 45. Seasonal fluctuations of parameters in Pomme de Terre Lake – 2002. Bars represent Secchi, line represents ISS.