

Pomme de Terre Lake

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.

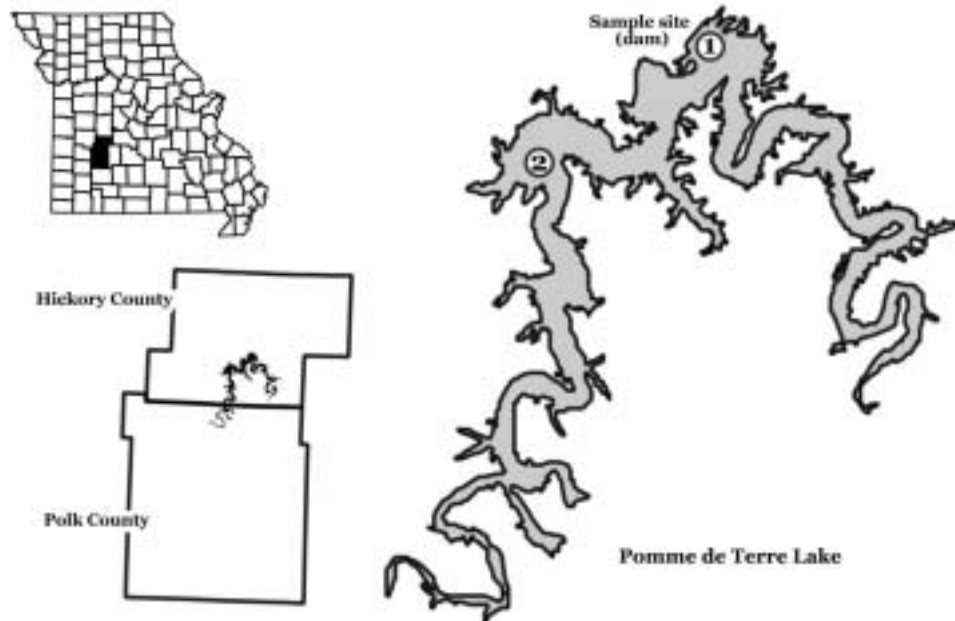


Figure 74. Sampling locations on Pomme de Terre Lake.

2004 Results

Figures 75 and 76 show how the parameters nitrogen, phosphorus, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Pomme de Terre Lake during 2004. The descriptive statistics appear in Tables 28 and 29. A brief description of the results:

- Secchi transparency values at Site 1 and Site 2 were nearly identical, save for an early season high at Site 1. Site 1 chlorophyll concentrations were 1/3 those of Site 2 on that date.
- Both sites display nearly identical seasonal patterns for all parameters.
- ISS concentrations appear to be substantial in May/June, but note the scale used. Concentrations of ISS were actually undetectable for most of the season, only approaching the detectable range on a few occasions.
- Generally nutrients and chlorophyll started higher in the spring and decreased as the season progressed.

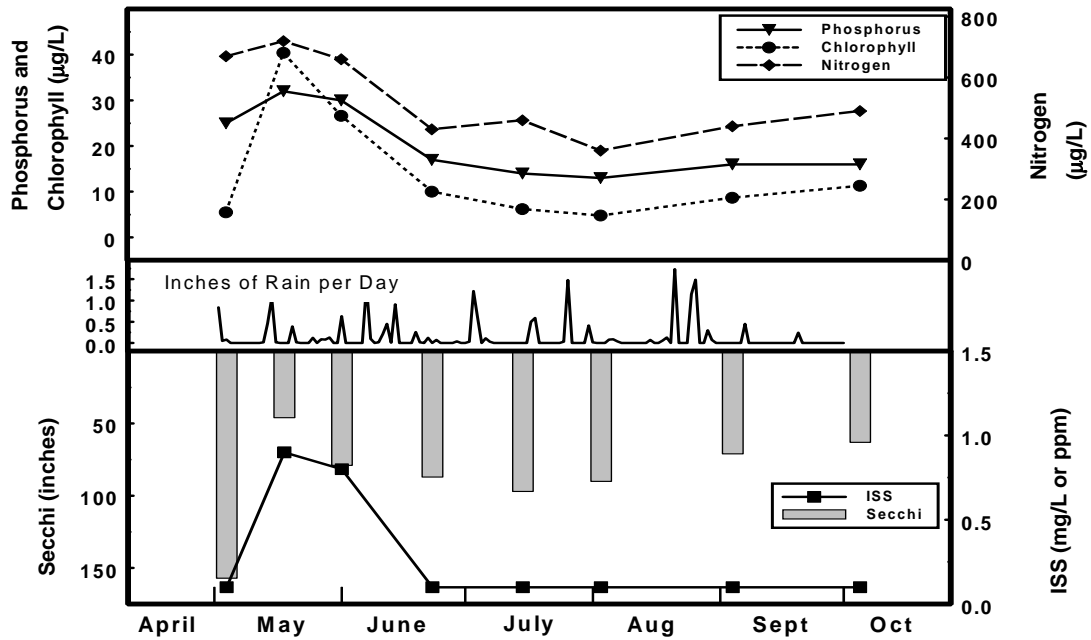


Figure 75. Seasonal fluctuations of parameters for Pomme de Terre Lake, Site 1 – 2004

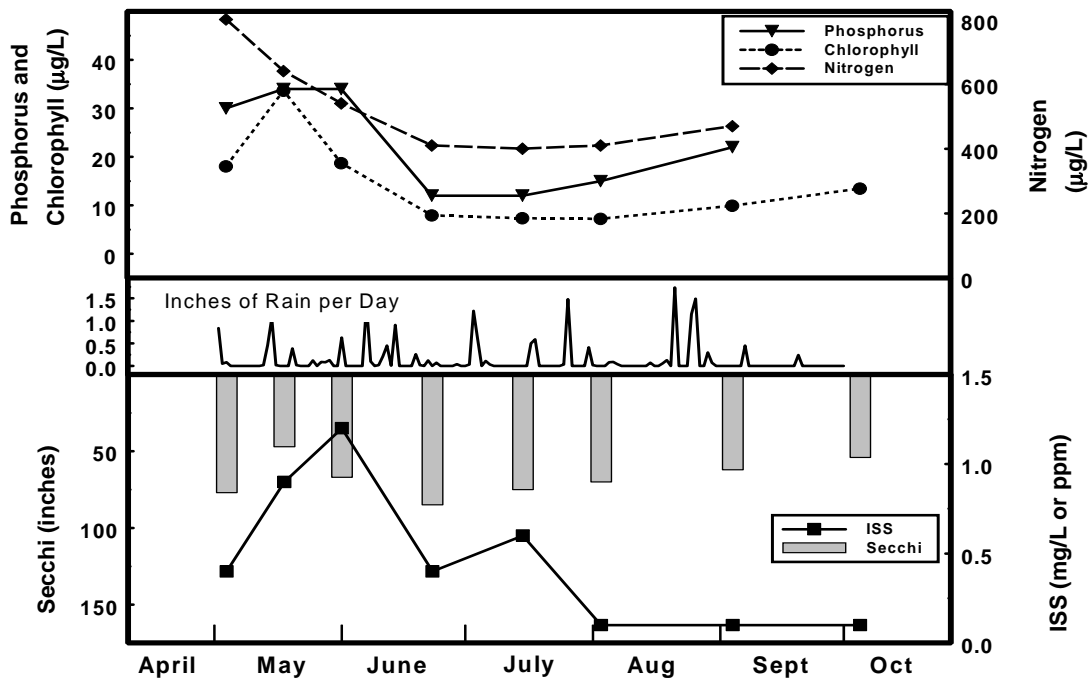


Figure 76. Seasonal fluctuations of parameters for Pomme de Terre Lake, Site 2 – 2004

Table 28. Descriptive statistics for Pomme de Terre Lake, Site 1 – 2004.

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
Geometric Mean	81	19	514	10.7	0.2
Minimum	46	13	360	4.8	0.1
Maximum	157	32	720	40.4	0.9
Number of Samples	8	8	8	8	8

Table 29. Descriptive statistics for Pomme de Terre Lake, Site 2 – 2004.

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
Geometric Mean	66	21	508	12.6	0.3
Minimum	47	12	400	7.2	0.1
Maximum	85	34	800	33.6	1.2
Number of Samples	8	7	7	8	8

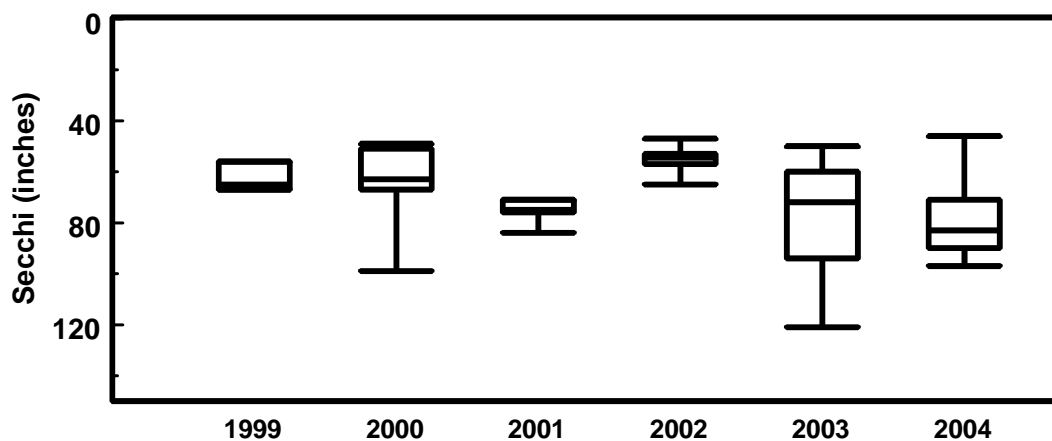


Figure 77. Secchi trends in Pomme de Terre Lake. No apparent trends for any parameter.