

Creve Coeur Lake

Creve Coeur is a 320-acre lake located in the Missouri River floodplain, where the nutrient-rich soil is easily eroded. Even though the lake is part of a 1,141-acre park, the area adjacent to the lake is urban. Creve Coeur Lake differs from all of the other lakes in the program in that it is not a reservoir, but an oxbow lake. Having once been part of the Missouri River, this lake is now about two miles from the present channel, separated over time by the natural meandering of the river.

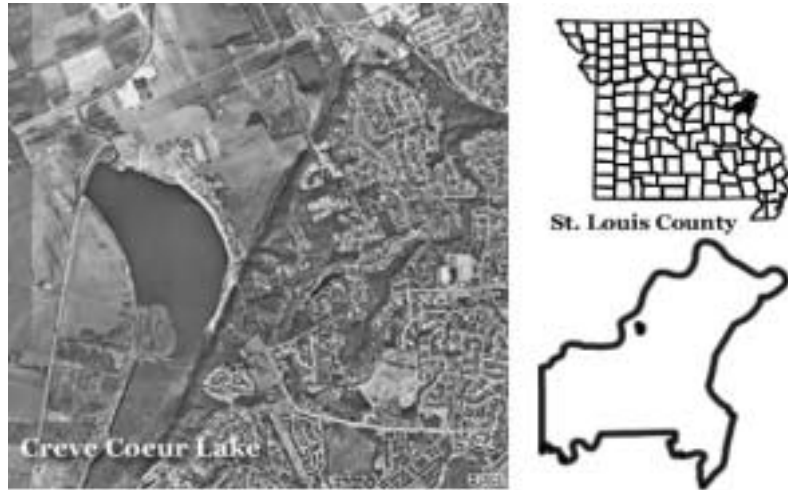


Figure 34. Location of Creve Coeur Lake

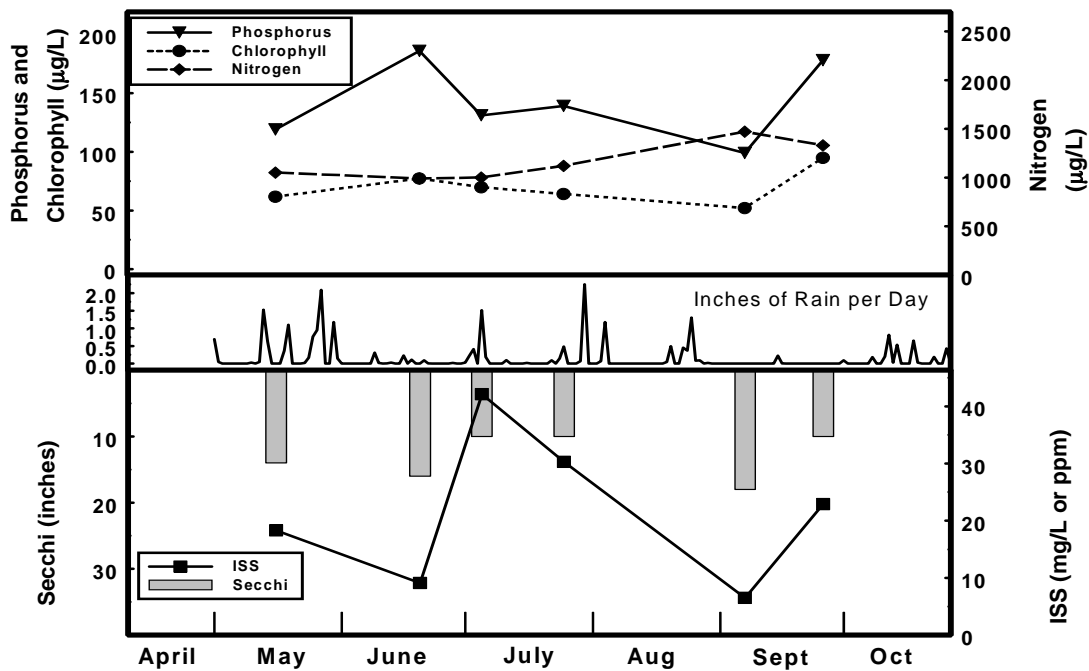


Figure 35. Seasonal fluctuations of parameters for Creve Coeur Lake – 2004

Table 9. Descriptive statistics for Creve Coeur Lake – 2004

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
Geometric Mean	13	139	1146	68.6	17.8
Minimum	10	99	990	52.0	6.5
Maximum	18	186	1470	94.7	42.1
Number of Samples	6	6	6	6	6

2004 Results

Figure 35 shows how the parameters nitrogen, phosphorus, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Creve Coeur Lake during 2004. The descriptive statistics appear in Table 9.

A brief description of the results:

- Creve Coeur Lake consistently had high concentrations of nutrients, chlorophyll and sediments. This is expected of shallow oxbow lakes and is not a cause for concern.
- Secchi transparency values were low and varied only 8 inches through the season due to high concentrations of sediments and algae.
- Mid-July ISS peak of 42.1 mg/L is very high.

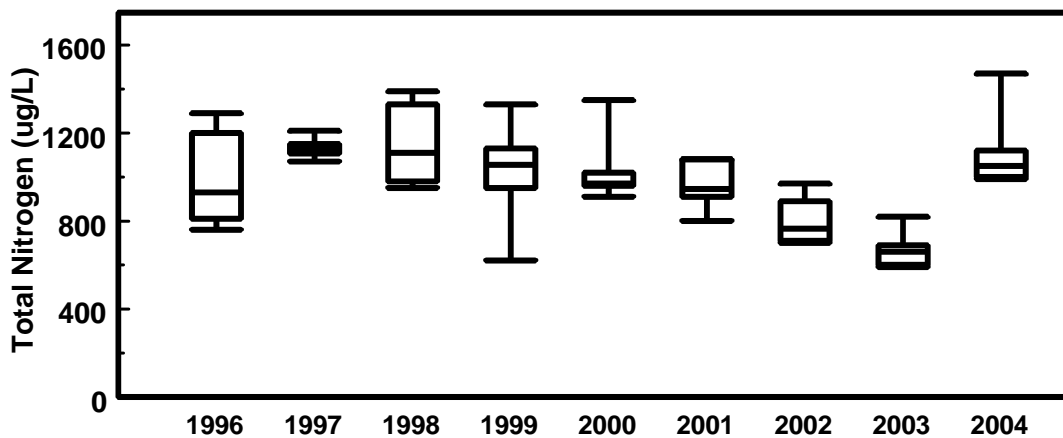


Figure 36. Nitrogen trends in Creve Coeur Lake. 2004 nitrogen concentrations were high compared to the last 2 years, but typical of the lake.