

Creve Coeur Lake

Saint Louis County

2008 DATA

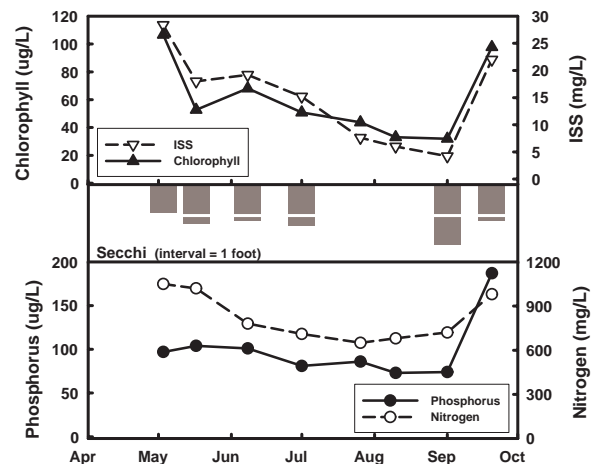


Date	Secchi (inches)	TP (µg/L)	TN (µg/L)	CHL (µg/L)	ISS (mg/L)
5/3	11	97	1050	106.7	28.4
5/17	15	104	1020	52.7	18.0
6/8	14	101	780	68.1	19.2
7/1	16	81	710	50.8	15.2
7/26	* >30	86	650	43.7	7.6
8/10	* >28	73	680	33.0	6.0
9/1	23	74	720	31.9	4.2
9/20	14	187	980	97.8	22.0
Mean	15	96	810	55.3	12.6

* Secchi hit bottom

2008 SUMMARY

Creve Coeur Lake was sampled 8 times in 2008 from May 3 through September 20. It was a wet year, with roughly double the normal rainfall during the 2008 sample season. The months of May, July and September each received more than 9 inches of rainfall. The sample site was moved at least twice in 2008, due to relocation of the dock from which the samples are collected. On 2 occasions, the Secchi disk reached the bottom before a reading could be obtained. Secchi values from 2008 will not include those days when clarity was presumably the best. Concentrations of nutrients, chlorophyll and suspended sediments peaked in September, probably due to heavy rainfall courtesy of Hurricane Ike.



TRENDS

ISS and chlorophyll concentrations displayed similar patterns during 2008. Normally chlorophyll concentrations are depressed when ISS concentrations exceed 10 mg/L, due to shading of the algae by sediment particles. The high chlorophyll readings during periods of elevated ISS suggests that the lake was fairly well mixed, and algae were able to spend sufficient amounts of time in the near-surface waters to maintain growth.

Mean 2008 concentrations of phosphorus and nitrogen (not shown) were considerably lower than the long-term mean, and comparable to values observed during the previous 3 years. Suspended sediments remain quite low, compared to the long-term mean, likely due to the construction of a secondary lake (Mallard) in 2003 that is designed to capture inflowing sediments before they reach Creve Coeur Lake.

