

Stephens Lake



2009 DATA

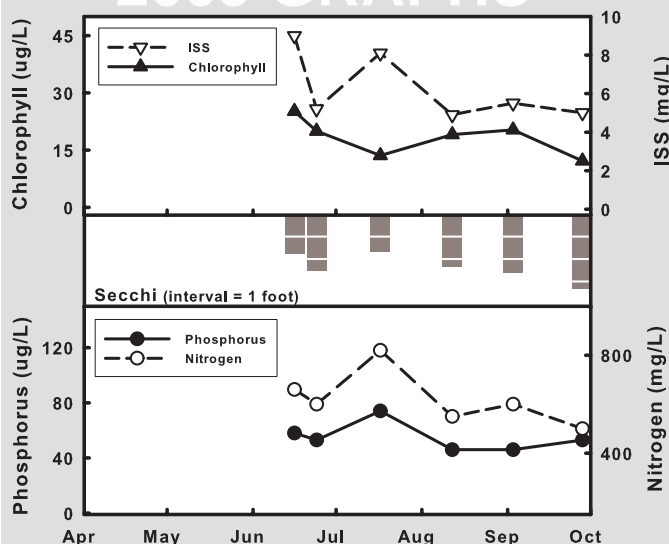
Boone County
 Latitude: 38.9511 Longitude: -92.3085

Date	X	X	6/16	6/24	7/17	8/12	9/3	9/28	Mean
Secchi (inches)			21	30	20	28	31	40	28
TP (µg/L)			58	53	74	46	46	53	54
TN (µg/L)			660	600	820	550	600	500	614
CHL (µg/L)			25.2	20.0	13.6	19.1	20.3	12.2	17.9
ISS (mg/L)			9.0	5.2	8.1	4.9	5.5	5.0	6.1

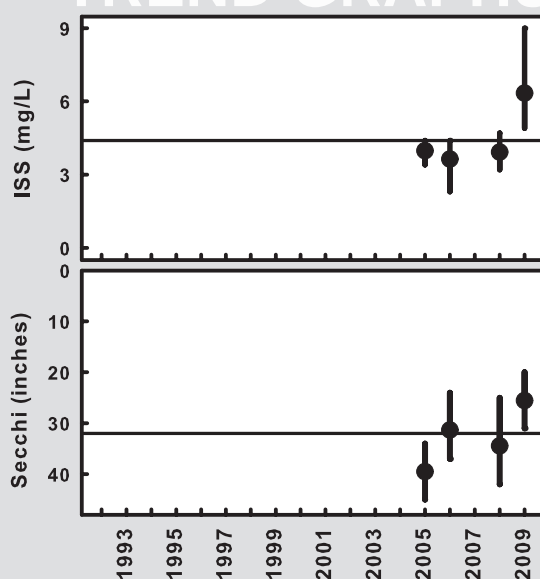
Stephens Lake is centrally located in Columbia and was sampled 6 times in 2009. Water clarity exceeded 3 feet on only one occasion, and averaged well below the statewide average of 39 inches. The ratio of nitrogen to phosphorus is somewhat low, at 11:1, indicating the presence of abundant phosphorus. Stephens Lake had approximately double the statewide average of suspended sediments (ISS) in 2009, which is likely responsible for the abundant phosphorus. A peak of nutrients and ISS on July 17 coincides with a decrease in water clarity and chlorophyll and was likely caused by runoff associated with a rain event.

2009 marks the fourth year of sampling at Stephens Lake. The sampling location was moved closer to the shore this year. Concentrations of sediments (ISS) were higher this year than in previous years, with the 2009 minimum exceeding any previous year's maximum. While moving the sampling site may have had an impact on the data, chlorophyll and nitrogen values (graphs not shown) are within the range of previous years. Mean water clarity in 2009 was lower than in previous years, likely due to the higher suspended sediment concentrations.

2009 GRAPHS



TREND GRAPHS



See pages 10-11 for help interpreting graphs