

# Tri City Lake



## 2010 DATA

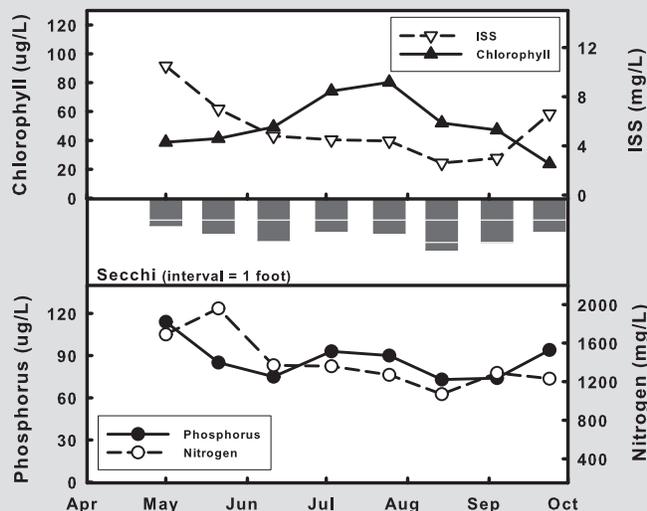
Boone County  
 Latitude: 39.1904 Longitude: -92.2085

Date	5/1	5/21	6/11	7/3	7/25	8/14	9/4	9/24	Mean
Secchi (inches)	15	19	23	18	19	28	24	18	20
TP (µg/L)	114	85	75	93	90	73	74	94	86
TN (µg/L)	1690	1960	1370	1360	1270	1070	1290	1230	1382
CHL (µg/L)	38.7	41.3	49.3	74.2	80.3	52.1	47.2	23.8	47.8
ISS (mg/L)	10.5	7.0	4.8	4.5	4.4	2.6	3.0	6.6	4.9

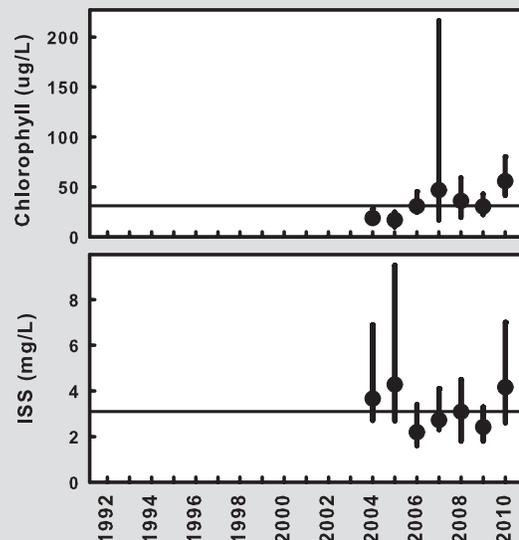
While maximum phosphorus and nitrogen values were measured early in the sample season, Tri City Lake did not display the normal pattern seen in many Missouri lakes where these springtime maximum values are followed by decreasing values during the sample season. During 2010, phosphorus remained fairly stable across the whole of the season. Chlorophyll values were generally high, with peak values in July. The seasonal pattern of chlorophyll reflects the inorganic suspended sediment levels, with the highest chlorophyll measurements coming when suspended sediment concentrations dropped below 5 mg/L. Water clarity was low throughout the season due to the moderate to high levels of both suspended sediment and algae (as estimated by chlorophyll).

Summertime inorganic suspended sediment values in 2010 were similar to those measured in 2004 and 2005, and higher than levels during the last four summers. Please note, the highest suspended sediment value in 2010 was collected on the first sample date and is not included in the long-term graph. The higher than average suspended sediment value is not as surprising as the higher than normal chlorophyll levels that were also measured in 2010. In most Missouri lakes higher suspended sediment reduces light available for algal growth. While the summertime suspended sediment values are not extreme by any means, they are high enough to have some influence on algal growth. Even with suspended sediment values over 4mg/L Tri City Lake supported chlorophyll levels in the hypereutrophic range.

## 2010 GRAPHS



## TREND GRAPHS



See pages 10-11 for help interpreting graphs