

Jennings Park Lake



(Koeneman Park Lake)

2010 DATA

St. Louis County
 Latitude: 38.7384 Longitude: -90.2583

Date	5/1	5/22	6/12	7/3	7/25	8/14	9/4	9/25	Mean
Secchi (inches)	65	36	30	30	23	22	26	26	30
TP (µg/L)	50	91	170	287	393	440	283	246	201
TN (µg/L)	520	630	600	670	850	980	930	1270	775
CHL (µg/L)	7.9	21.4	29.9	39.3	59.0	61.3	34.9	27.0	30.1
ISS (mg/L)	1.6	2.8	1.5	14.8	7.3	7.9	3.0	7.3	4.3

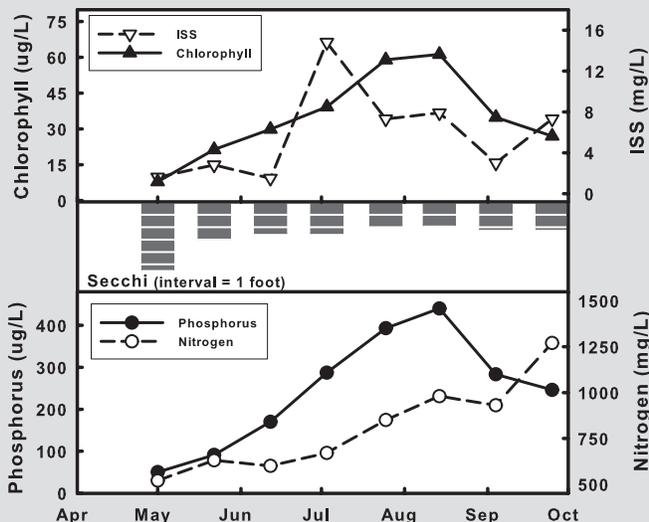
Jennings Lake once again displayed lower levels of nutrients, algal chlorophyll and inorganic suspended sediment at the beginning of the sample season, with increases through the summer. This differs from the normal seasonal pattern found in most Missouri lakes, which is dominated by inflows entering the lake during the springtime. This reversal of the normal Missouri pattern suggest that water quality in Jennings Lake may be dominated by internal loading as opposed to inputs from the watershed. Internal loading involves nutrients migrating from the lake sediment into the overlying water.

The nitrogen concentrations in Jennings Lake are low relative to phosphorus values, indicating that algae in the lake are limited in growth by nitrogen. This is important because some forms of algae are able to use

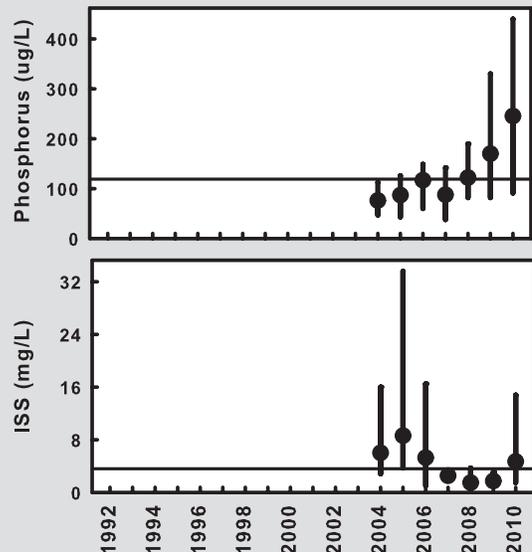
atmospheric nitrogen, making Jennings Lake a perfect place for their growth. These algae are often found in large clumps at the lake's surface, making them very undesirable to lake users.

Both the average and maximum phosphorus concentrations have increased over the last few summers in Jennings Lake. The average phosphorus concentration during the summer of 2010 was nearly twice the long-term average. In most Missouri lakes this increase in phosphorus would be mimicked by an increase in inorganic suspended sediments coming from the watershed. Review of data from Jennings Lake shows the inorganic suspended sediment values have not increased over the last few years. Phosphorus is the only water quality parameter that shows a trend.

2010 GRAPHS



TREND GRAPHS



See pages 10-11 for help interpreting graphs