

Rothwell Lake



2010 DATA

Randolph County
Latitude: 39.4184

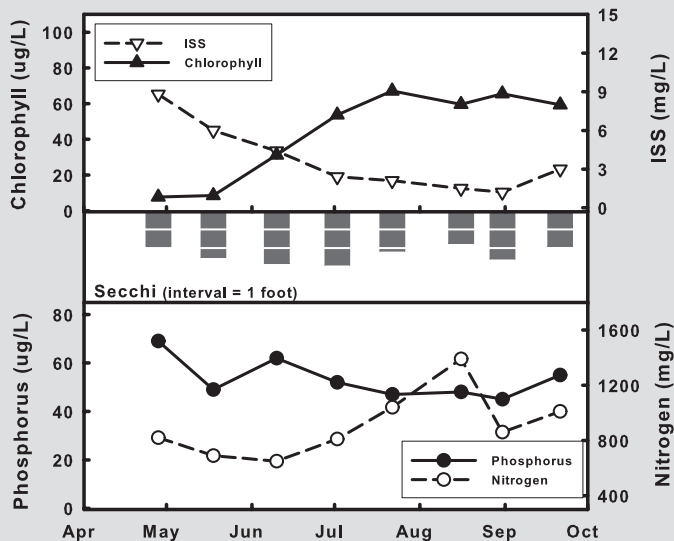
Longitude: -92.4616

Date	4/28	5/18	6/10	7/2	7/22	8/16	8/31	9/21	Mean
Secchi (inches)	24	30	34	35	26	21	31	23	28
TP (µg/L)	69	49	62	52	47	48	45	55	53
TN (µg/L)	820	690	650	810	1040	1390	860	1010	884
CHL (µg/L)	7.7	8.6	31.3	53.7	67.1	59.6	65.5	59.3	33.9
ISS (mg/L)	8.8	6.0	4.4	2.4	2.1	1.5	1.2	3.0	3.0

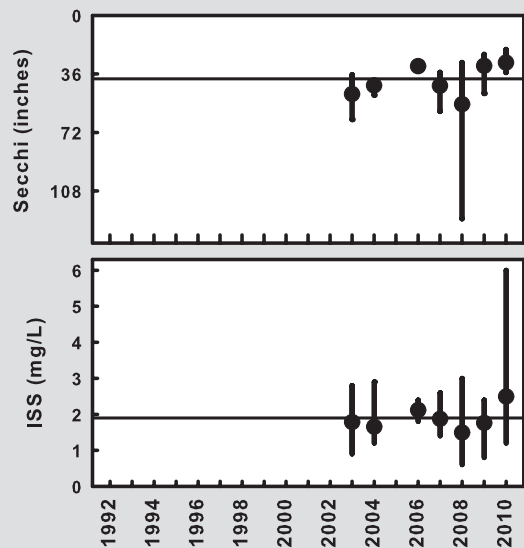
Suspended sediment concentrations in Rothwell Lake decreased through the 2010 season from an all-time high of 8.8mg/L in April (7.4mg/L in April, 2009 was second highest measured value). Chlorophyll concentrations increased as suspended sediment concentrations decreased, indicating probable light limitation of algae. In the 7 years of monitoring, just 6 Secchi observations have resulted in readings of less than 27 inches. Four of those observations were from 2010. Not surprisingly, the 2010 mean Secchi value (28 inches) was the lowest to date, though only marginally lower than 2009 and 2006 (31 inches). Phosphorus concentrations were high, but did not vary considerably during the season. Nitrogen concentrations increased in late summer, but dropped during early autumn.

The long-term trends show Secchi transparency has been below average for 2 consecutive years. No Secchi measurement in 2010 exceeded 36 inches, the statewide mean. Concentrations of suspended sediment are at least partly to blame for the diminished water clarity values. The 2010 mean ISS value was higher than any previous year, with the highest single "summer" value to date (6.0 mg/L)

2010 GRAPHS



TREND GRAPHS



See pages 10-11 for help interpreting graphs