Lamar City Lake

Site 1

2011 DATA

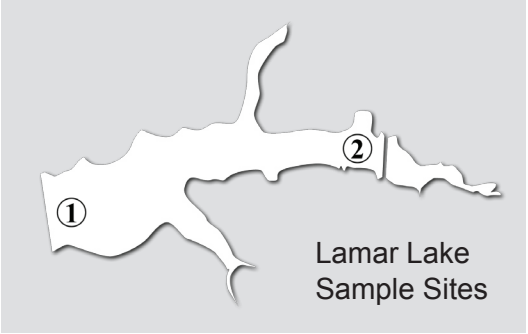
Barton County
Latitude: 37.4801 Longitude: -94.2602

Date	4/28	5/17	6/10	7/1	7/12	X	8/16	9/13	Mean
Secchi (inches)	36	48	24	34	24		24	24	30
TP (µg/L)	113	73	85	83	110		103	94	93
TN (µg/L)	1110	1100	1780	1140	1180		1600	1480	1318
CHL (µg/L)	5.6	19.9	47.7	37.6	58.9		67.2	45.0	32.2
ISS (mg/L)	3.3	1.8	3.2	0.2	1.0		2.3	2.6	1.6

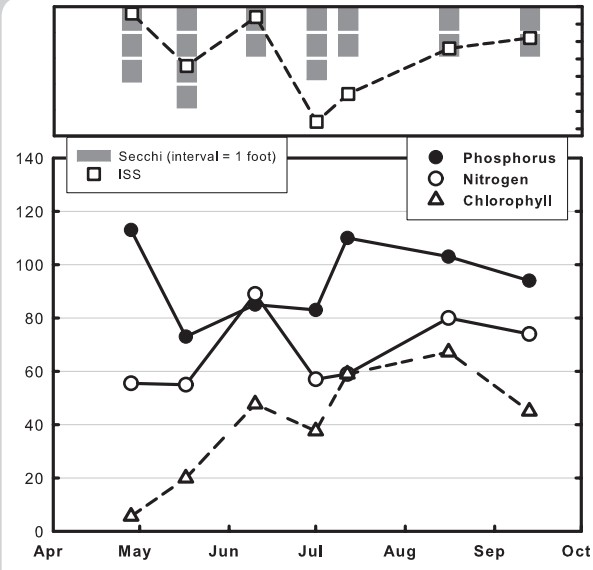
Water clarity was slightly lower at Lamar City Lake Site 1 than in the average Missouri lake. Suspended sediment concentrations were quite low, indicating that algae were likely responsible for low water clarity.

Chlorophyll values started quite low in April and increased considerably as the season progressed. The 2011 average chlorophyll value was 32.1 µg/L, roughly double the Missouri average. Nutrient concentrations at Site 1 in Lamar City Lake remained at approximately the same level throughout the 2011 sampling season. Nutrient concentrations were also high, roughly double the Missouri average.

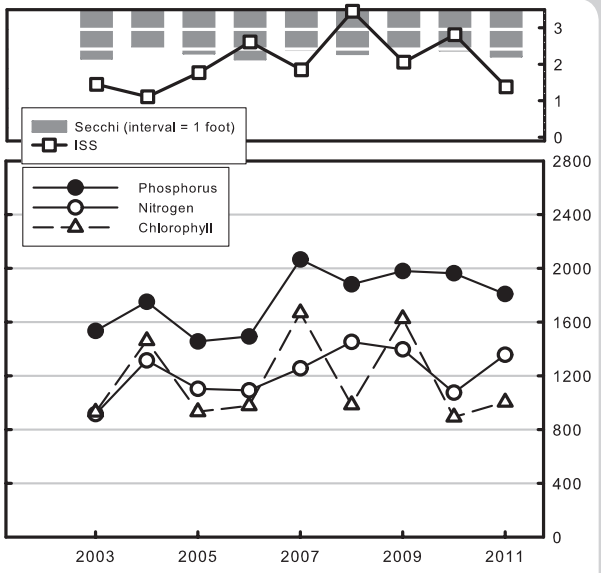
Long-term data suggest no water quality trends, though phosphorus concentrations were higher during the past 5 seasons than in the previous 4.



2011 GRAPHS



TREND GRAPHS



See page 3 for help interpreting graphs

Lamar City Lake

Site 2

2011 DATA

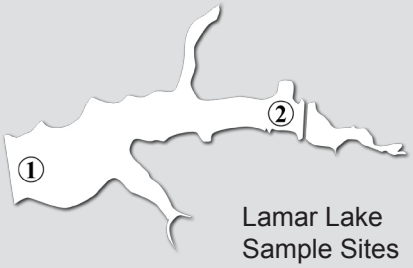
Barton County
Latitude: 37.483 Longitude: -94.2451

Date	4/28	5/17	6/10	7/1	7/12	X	8/16	9/13	Mean
Secchi (inches)	36	54	30	32	24		24	18	29
TP (µg/L)	114	85	85	129	108		101	101	75
TN (µg/L)	1160	1110	1070	1830	1570		1100	1150	1259
CHL (µg/L)	5.2	27.6	53.1	91.2	73.8		43.4	43.9	37.2
ISS (mg/L)	1.6	1.5	1.8	0.9	1.9		11.7	46.3	3.3

Water quality at Site 2 was not substantially different than at Site 1 (the dam). The average chlorophyll concentration was slightly higher at Site 2, and the average nutrient concentration was somewhat lower.

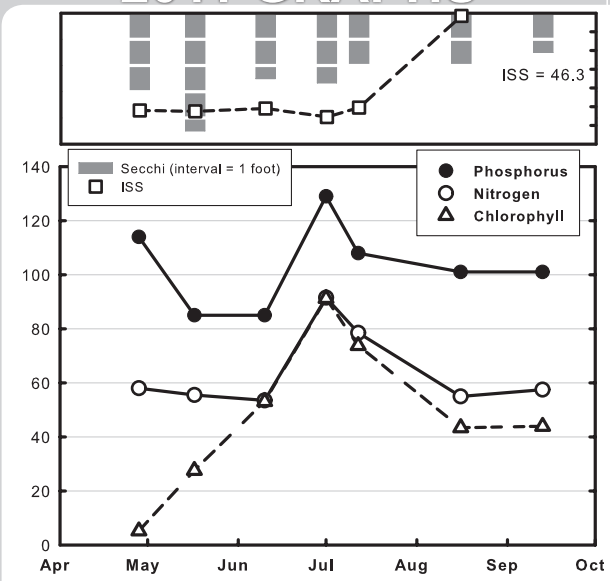
The geometric mean suspended sediment concentration was twice as high at Site 2 than at Site 1, but the value was still quite low. The only striking difference between the two sites was the extremely high suspended sediment value for September 13 (46.3 mg/L). The sample from the same date at Site 1 had a twentieth of the sediment measured at Site 2.

Long-term data from Site 2 are nearly identical to Site 1.

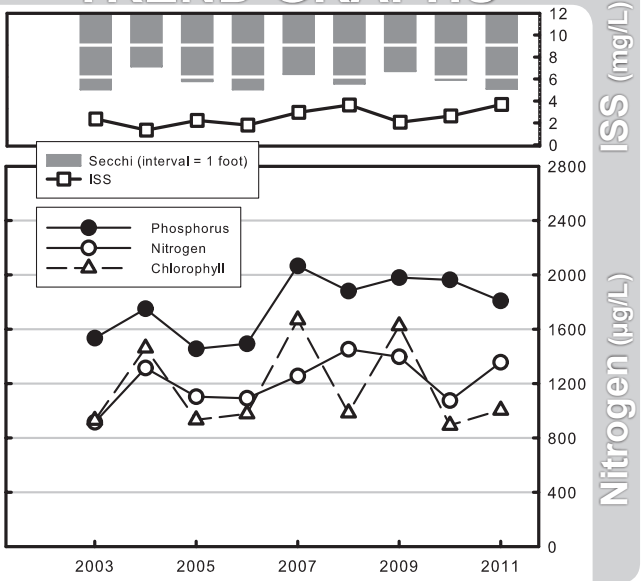


Lamar Lake
Sample Sites

2011 GRAPHS



TREND GRAPHS



See page 3 for help interpreting graphs