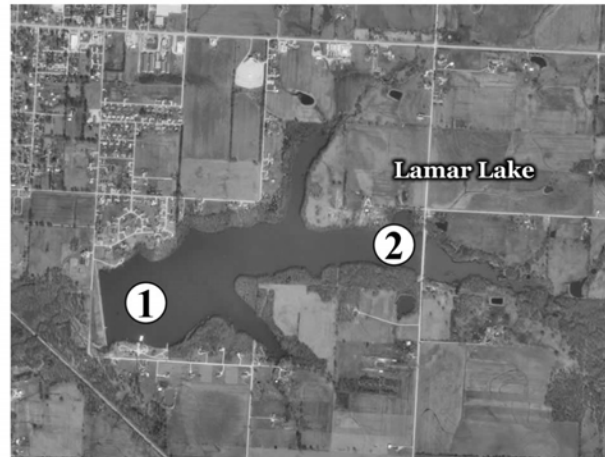


Lamar City Lake

Lamar Lake provides drinking water for the City of Lamar. This 147 acre lake has a 3055 acre watershed that is comprised of 11% forest, 65% grassland, 15% cropland, and 4% urban.



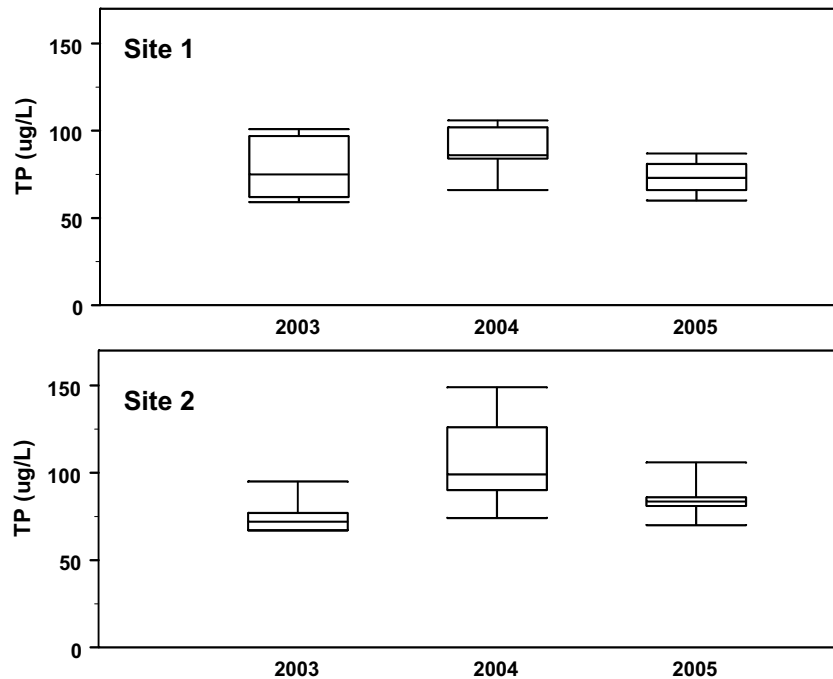
Location of Lamar City Lake

The high ratio of watershed size to lake volume limits the ability of Lamar Lake to dilute and settle out inputs of nutrients and sediments.

Phosphorus trends for Lamar City Lake, Site 1 and 2 – 2005

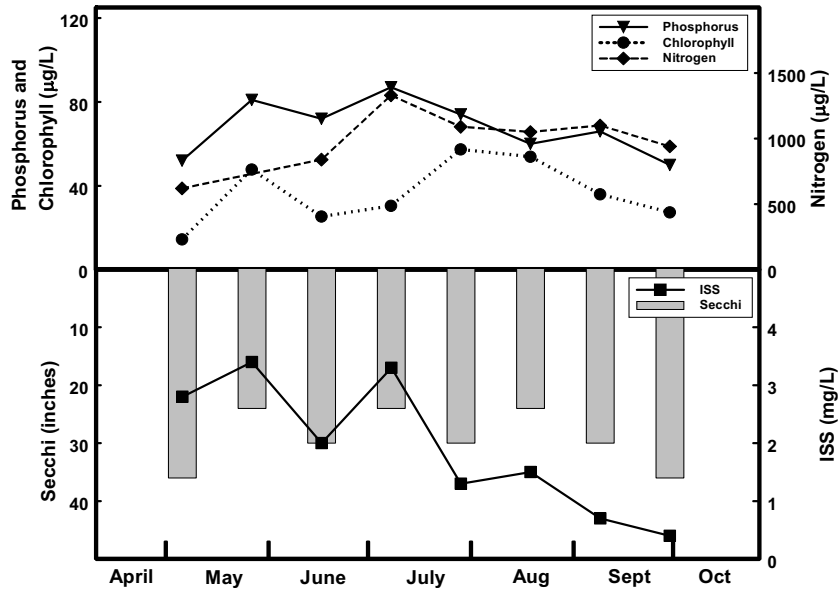
2005 was the third year for sampling at Lamar City Lake. There is not enough data to detect a trend at either site at this time.

Phosphorus concentrations are comparable at both sites.



Lamar City Lake, Site 1

Seasonal fluctuations of parameters for Lamar City Lake – 2005



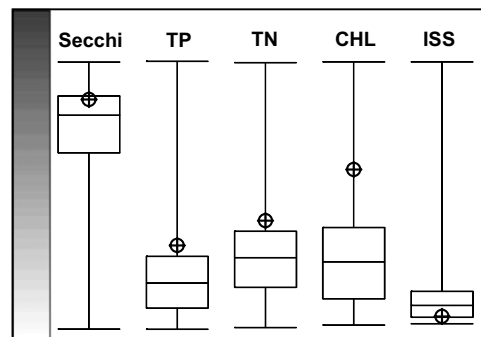
Descriptive statistics for Lamar City Lake, Site 1 – 2005

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
Geometric Mean	29	67	972	33.6	1.6
Minimum	24	50	620	14.4	0.4
Maximum	36	87	1330	57.3	3.4
Number of Samples	8	8	7	8	8

Nutrient and chlorophyll concentrations at sites 1 and 2 were high during 2005, with geometric means that were higher than observed in 75% of Missouri's lakes.

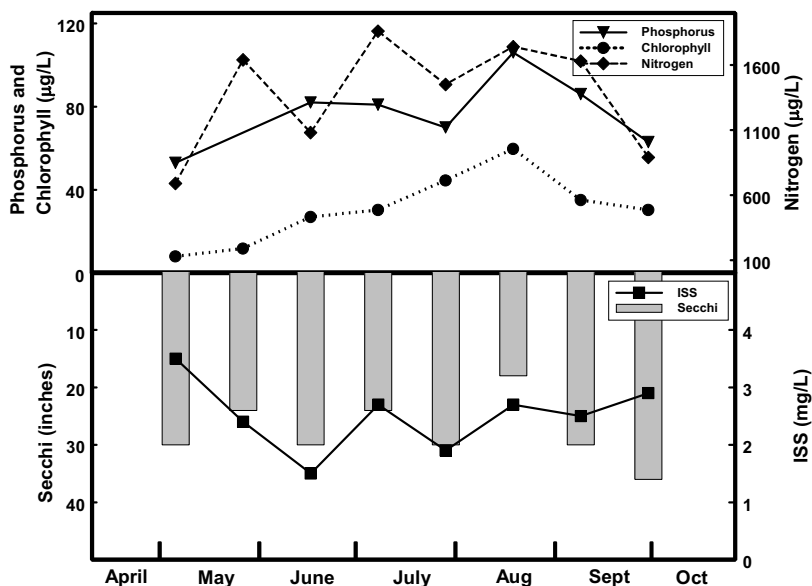
In contrast, ISS levels were quite low, with around 75% of Missouri lakes having more suspended sediments.

Relative Rank for Lamar City Lake, Site 1



Lamar City Lake, Site 2

Seasonal fluctuations of parameters for Lamar City Lake – 2005



Descriptive statistics for Lamar City Lake, Site 1 – 2005

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
Geometric Mean	27	77	1303	26.1	2.4
Minimum	18	53	690	8.0	1.5
Maximum	36	106	1860	59.7	3.5
Number of Samples	8	8	8	8	8

Water quality at the two sites was very similar, with up-lake (Site 2) having a slightly more nutrients and ISS. The parameters showed relatively normal amounts of variation during the sample season.

Relative Rank for Lamar City Lake, Site 2

