

# Bowling Green Lake 1

Pike County

2008 DATA



Date	Secchi (inches)	TP (µg/L)	TN (µg/L)	CHL (µg/L)	ISS (mg/L)
4/24		44	920	14.2	6.1
5/13		27	730	2.4	1.4
6/3				2.1	0.6
6/27		24	590	16.5	2.0
7/17		16	510	5.4	0.2
8/14		38	530	14.5	1.5
8/26		23	540		0.9
9/17		68	690	13.4	6.0
<b>Mean</b>		<b>31</b>	<b>631</b>	<b>7.4</b>	<b>1.4</b>

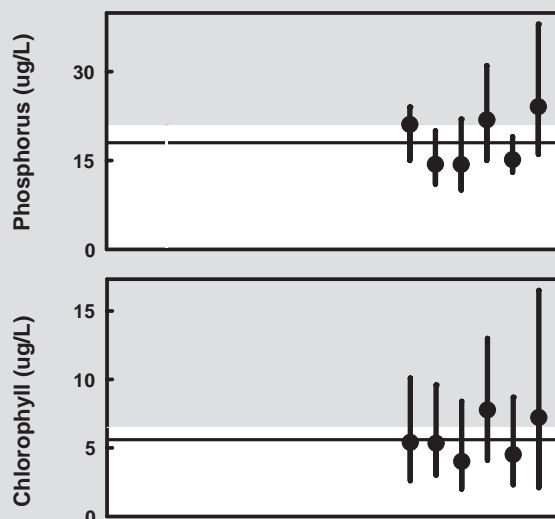
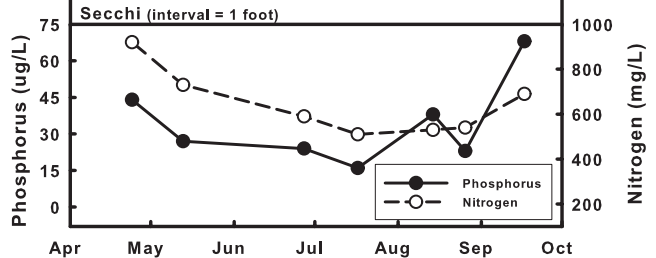
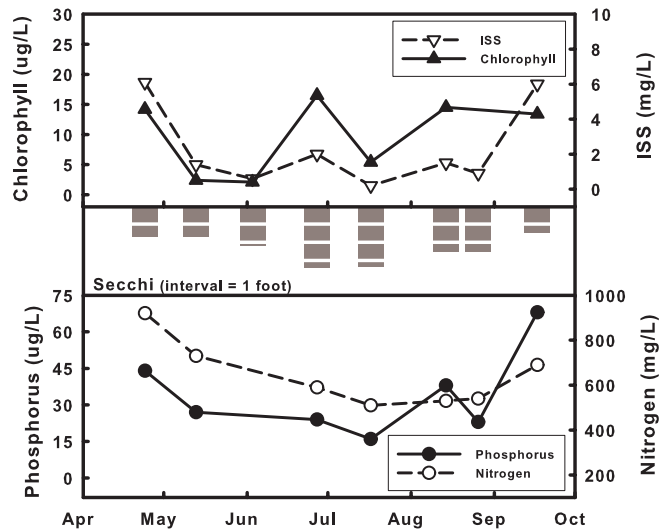
2008 SUMMARY

Secchi transparency values are omitted from this report. Discrepancies between MU values and volunteer values were too great to be ignored. Until this can be sorted out, the data will not be reported.

Chlorophyll concentrations ranged 8-fold in 2008, from a low of 2.1 to a high of 16.5 µg/L. Both nutrients had their highest values at the very beginning and the very end of the sampling season, with somewhat lower values throughout the mid-season. Seven inches of rain fell within the 5 days preceding the September sample, explaining the increase in nutrients and sediments at the end of the season.

Mean nitrogen and phosphorus values were higher in 2008 than in any year monitored by the LMVP to date. The 2008 mean chlorophyll concentration was approximately the same as the long-term mean, but the range was quite high. In 2008 the range of chlorophyll concentrations was greater than the combined range of all other years.

TRENDS



# Bowling Green Lake 2

Pike County

2008 DATA



Date	Secchi (inches)	TP (µg/L)	TN (µg/L)	CHL (µg/L)	ISS (mg/L)
4/24		111	1370	5.7	6.2
5/13		183	1480	1.4	5.1
6/3		267	1600	1.5	3.3
6/27		415	1870	7.0	2.2
7/17		412	1950	4.8	1.5
8/14		404	2180	9.5	2.0
8/26		410	2540		2.1
9/17		447	2700	23.8	0.6
<b>Mean</b>		<b>302</b>	<b>1910</b>	<b>5.1</b>	<b>2.3</b>

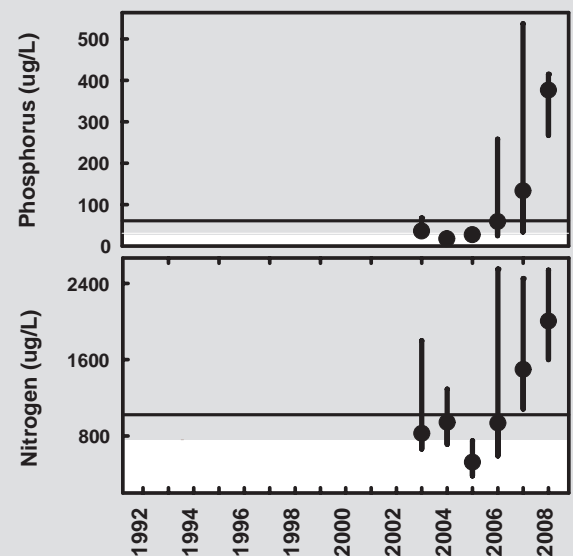
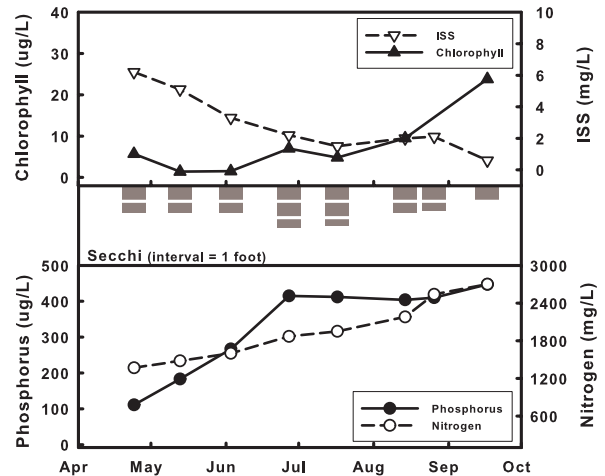
2008 SUMMARY

Nutrient concentrations, especially phosphorus, were exceptionally high in Bowling Green Lake #2 during 2008. The minimum 2008 phosphorus concentration (111 µg/L) is double the statewide average. While phosphorus concentrations were *comparatively* lower as the season began, they reached 400 µg/L in June and remained in that range for the rest of the season.

It can not be overstated how high these phosphorus concentrations are. In 2008, this lake's mean phosphorus concentration was 8 times higher than the value recommended Missouri's pending nutrient criteria.

Chlorophyll concentrations were surprisingly low given the very high nutrient values, averaging just 5.1 µg/L. Seven inches of rain fell in the 5 days preceding the last sample collection, which likely explains the high seasonal values for both nutrients and chlorophyll on that date. ISS values in Bowling Green Lake #2 remained surprisingly low during June through September, despite frequent and heavy rainfall.

Mean nitrogen and phosphorus concentrations in 2008 were higher than measured to date in this lake. 2008 mean Chlorophyll and Inorganic Suspended Solids values were comparable to the long-term mean.



TRENDS