

Bowling Green Lake 1

Pike County

2006 DATA

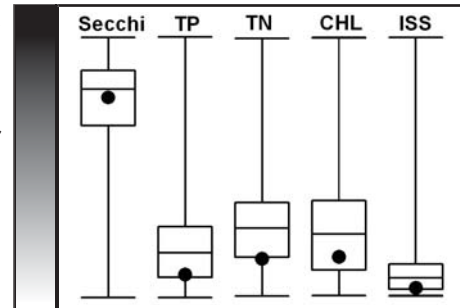


Date	Secchi (inches)	TP (µg/L)	TN (µg/L)	CHL (µg/L)	ISS (mg/L)
4/25	48	22	640	16.8	1.8
5/15	36	15	530	4.1	1.6
6/6	36	21	560	13.0	1.6
6/26	30	23	440	6.2	1.5
7/17	40	31	470	12.0	3.9
8/2	38	22	550	7.6	0.8
8/29	96	22	350	7.3	1.1
9/19	48	35	440	15.9	2.5
Mean	44	23	490	9.4	1.7

2006 SUMMARY

Parameters generally displayed normal variation during the course of the sample season. Phosphorus and nitrogen varied by a factor of two, while chlorophyll varied four-fold. The maximum Secchi transparency of 96 inches measured on August 29th is a little odd given that neither chlorophyll or inorganic suspended sediments were at a minimum.

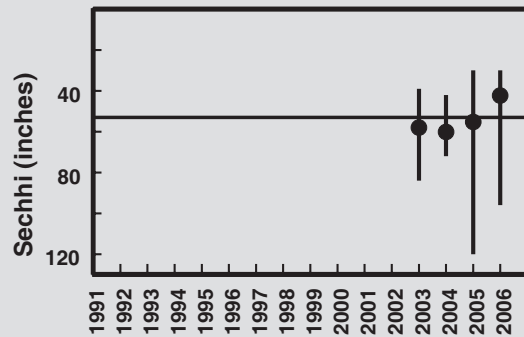
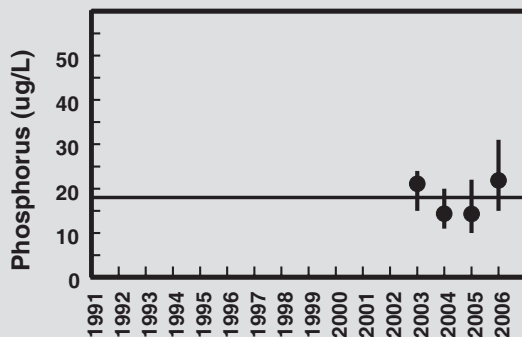
Nutrients, ISS and CHL were all near the 25th percentile of the state ranking, indicating that water quality is better than ~75% of Missouri lakes. The mean summer Secchi transparency reading was near the median, suggesting lower water clarity than expected given the chlorophyll and ISS.



Relative Rank Graph
See page 11 for details

TRENDS

There were a few higher phosphorus values in 2006 than in the past, but the year to year fluctuations displayed in Bowling Green 1 are typical for Missouri lakes. None of the parameters in Bowling Green Lake 1 show a trend in changing water quality.



Bowling Green Lake 2

Pike County

2006 DATA

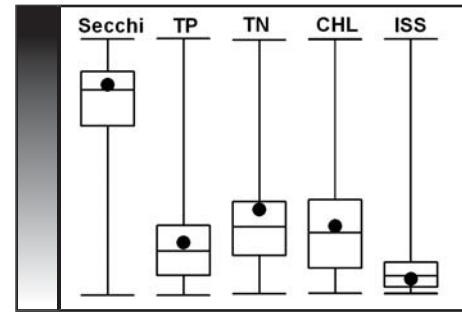


Date	Secchi (inches)	TP (µg/L)	TN (µg/L)	CHL (µg/L)	ISS (mg/L)
4/25	36	22	850	0.4	0.3
5/15	34	25	720	4.2	2.8
6/6	48	25	590	9.3	2.4
6/26	24	36	740	27.4	1.8
7/17	36	88	790	59.8	6.9
8/2	24	85	1050	29.4	3.4
8/29	48	258	2550	85.3	2.0
9/19	36	22	550	57.3	11.2
Mean	35	46	864	15.7	2.6

2006 SUMMARY

Water quality in Bowling Green Lake 2 varied widely in 2006. Phosphorus fluctuated by a factor of 10, nitrogen by a factor of ~5, and chlorophyll ranged from less than 1 to 85 µg/L. These fluctuations were more than likely due to the removal of water from Lake #2 during the summer (water was pumped from Lake 2 into Lake 1). Nutrient values during the first half of the sample season represent water quality in the surface layer of the lake. Higher values during the second half of the season probably represent water that had been in the deep layer during early summer, but became surface water as the original surface layer was pumped out. Secchi transparency values are odd as they do not seem to correlate to chlorophyll and ISS very well.

Despite some extreme nutrient and chlorophyll values measured in Bowling Green Lake 2 during 2006, the mean values were still typical for Missouri lakes, with all parameter means falling within the middle 50% of Missouri lake data.



Relative Rank Graph
See page 11 for details

TRENDS

There were higher phosphorus and ISS values in Bowling Green Lake 2 this summer than in previous years, but these values probably represent fluctuations in the lake's volume and thermal stratification and not real trends in water quality.

