

Fellows Lake

Greene County

2008 DATA



Date	Secchi (inches)	TP (µg/L)	TN (µg/L)	CHL (µg/L)	ISS (mg/L)
4/26	83	16	380	2.5	1.1
5/21	124	20	420	43.2	0.1
6/5	147	10	230	4.4	0.3
6/30	45	32	390	16.6	3.4
7/23	49	16	390	10.6	1.0
8/4	106	12	320	4.4	0.2
9/2	81	13	320	9.2	1.1
9/24	102	17	290	5.5	0.4
Mean	86	16	337	8.1	0.6

2008 SUMMARY

Fellows Lake was constructed in 1955 and is used as a water supply source for the City of Springfield. The lake's surface area was measured at 743 acres on April 23, 2001, though Fellows is 844 acres when full to the spillway. 2008 was the first year that Fellows Lake has been sampled for the LMVP.

Secchi values ranged over 8 feet, from a minimum of 45 to a maximum of 147 inches.

A spike in the concentrations of phosphorus and sediments (ISS) occurred in late June, as did the season's lowest measured Secchi value. Roughly 13 inches of rain fell between the early June and late June samples. Nonpoint source pollution (polluted runoff) is likely to blame for the increase in nutrients and sediments and the reduction in water clarity. Nitrogen concentrations remained fairly stable throughout the season, with less than a two-fold total range. The maximum chlorophyll concentration of 43.2 µg/L on May 21 corresponds with a Secchi measurement of over 10 feet. The values obtained on this date are notable because such a high chlorophyll value would typically be associated with much more turbid water.

While Fellows Lake's water quality is more variable than that of Stockton, the two lakes were comparable at the seasonal mean level in 2008.

