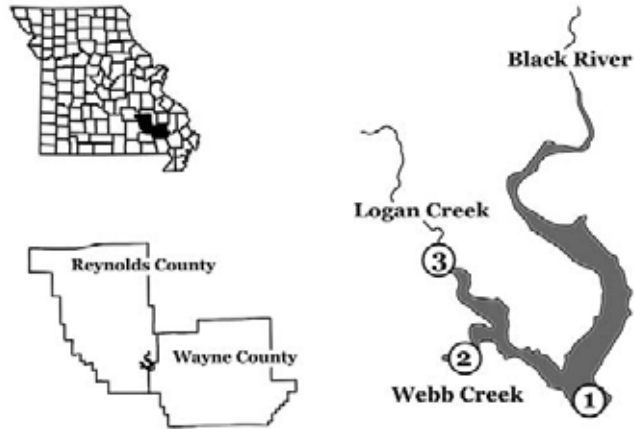


# Clearwater Lake

Construction on the Clearwater Lake dam began in 1940, but thanks to World War II the reservoir didn't see completion until 1948. The result is a 2,200 acre lake with a large, 578,000 acre watershed comprised mainly of forest cover (87%) and grassland (10%). While the dam is located in Wayne County, most of the lake is in Reynolds County. This flood control reservoir can swell to over 10,000 acres at full pool.

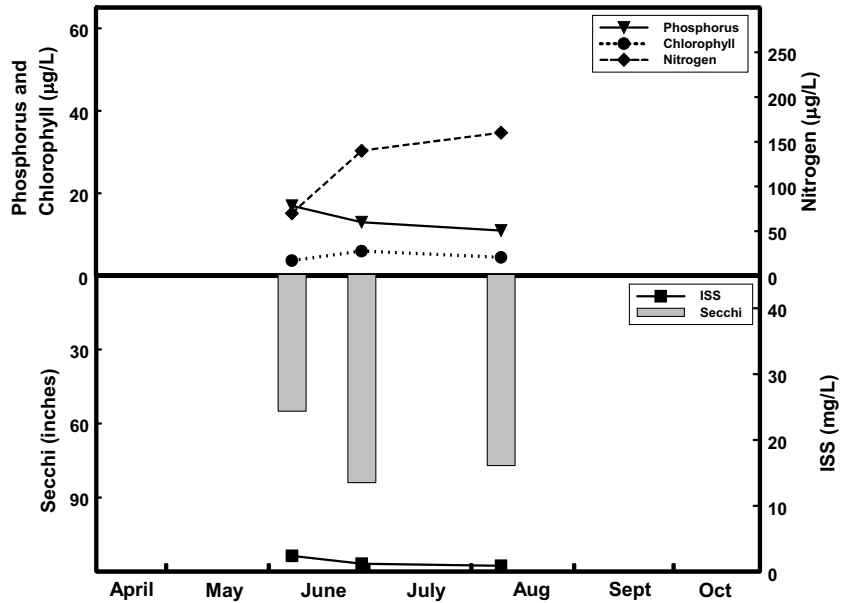


Location of Clearwater Lake and its sample sites

- 2005 marks the first year that Clearwater Lake has been sampled for the LMVP. There are 3 sample sites located on Clearwater Lake, Site 1 at the dam, Site 2 in the Webb Creek cove and Site 3 in the Logan Creek arm.
- Only 3 samples were collected at each site in 2005.
- All 3 sites had *extremely* low nitrogen concentrations.
- Sites 2 and 3, in the more riverine sections of the lake, had high concentrations of suspended sediments. Because of this, the Secchi transparency values were low for Sites 2 and 3.

# Clearwater Lake, Site 1

## Seasonal fluctuations of parameters for Clearwater Lake, Site 1 – 2005

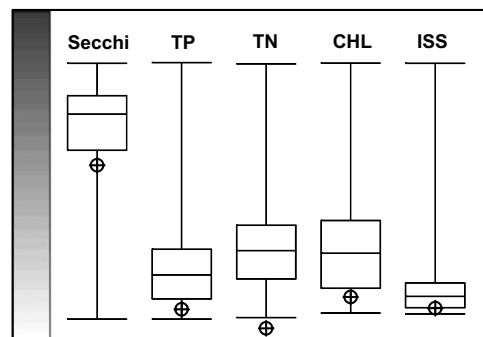


## Descriptive statistics for Clearwater Lake, Site 1 – 2005

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
<b>Geometric Mean</b>	70	13	116	4.6	1.4
<b>Minimum</b>	55	11	70	3.7	0.9
<b>Maximum</b>	84	17	160	6.0	2.4
<b>Number of Samples</b>	3	3	3	3	3

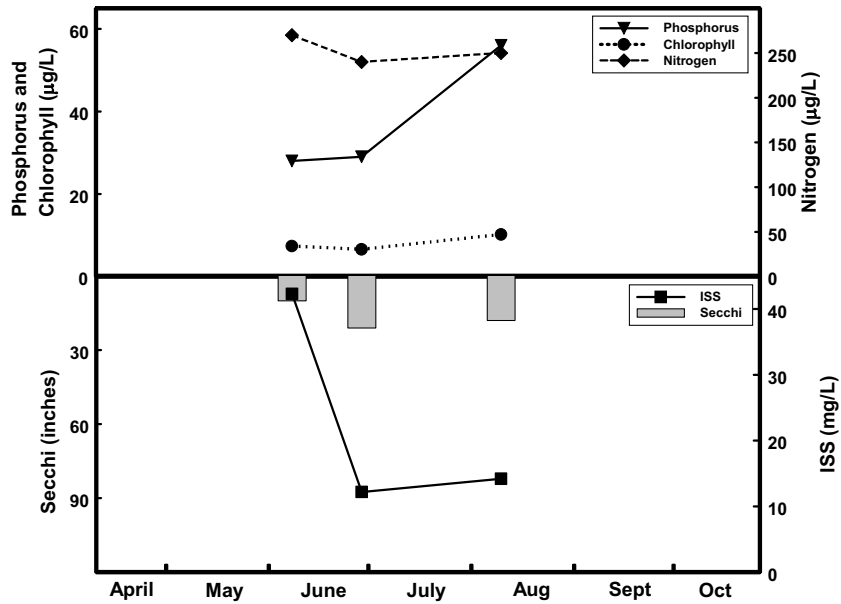
Site 1 had extremely low concentrations of nutrients (TN, TP) and chlorophyll (CHL), very little suspended sediments (ISS), and a high Secchi transparency value (Secchi). The dam at Clearwater Lake has exceptional water quality.

### Relative Rank for Clearwater Lake, Site 1



# Clearwater Lake, Site 2

## Seasonal fluctuations of parameters for Clearwater Lake, Site 2 – 2005

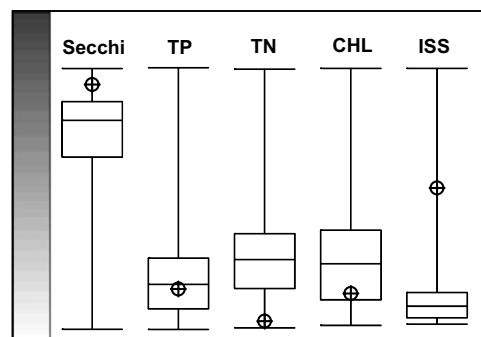


## Descriptive statistics for Clearwater Lake, Site 2 – 2005

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
<b>Geometric Mean</b>	16	36	253	7.9	19.4
<b>Minimum</b>	10	28	240	6.6	12.2
<b>Maximum</b>	21	56	270	10.2	42.3
<b>Number of Samples</b>	3	3	3	3	3

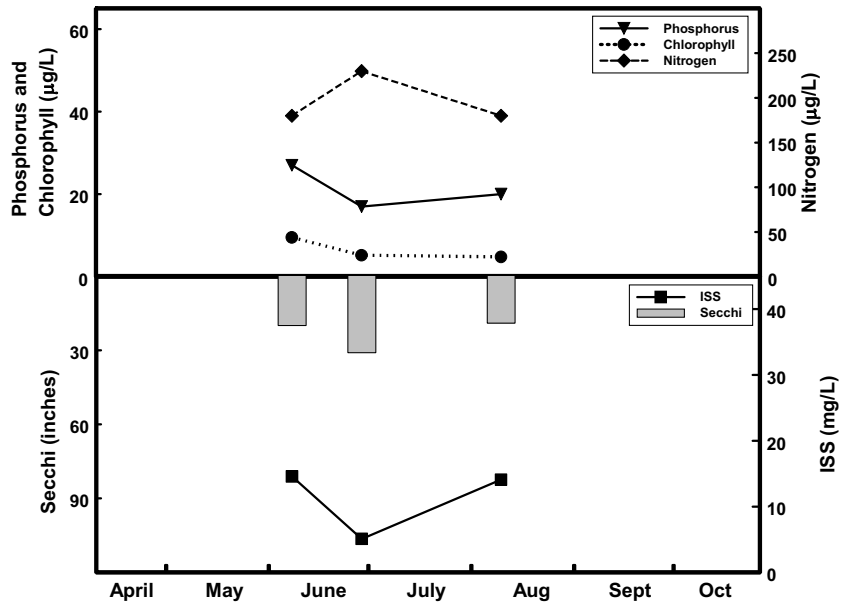
Site 2 had high concentrations of inorganic suspended solids (ISS) that had a negative effect on Secchi transparency. Phosphorus (TP) and chlorophyll (CHL) concentrations were lower than seen in most Missouri lakes, though higher than expected for a large lake in the Ozarks. Nitrogen concentrations (TN) were much lower than expected, considering the phosphorus concentrations.

### Relative Rank for Clearwater Lake, Site 2



# Clearwater Lake, Site 3

## Seasonal fluctuations of parameters for Clearwater Lake, Site 3 – 2005



## Descriptive statistics for Clearwater Lake, Site 3 – 2005

	Secchi (inches)	TP (ug/L)	TN (ug/L)	CHL (ug/L)	ISS (mg/L)
<b>Geometric Mean</b>	23	21	195	6.2	10.2
<b>Minimum</b>	19	17	180	4.8	5.1
<b>Maximum</b>	31	27	230	9.5	14.6
<b>Number of Samples</b>	3	3	3	3	3

Site 3 had higher concentrations of ISS than observed in the other sites on Clearwater Lake. This resulted in a deeper Secchi transparency than observed at Webb Creek (Site 2), though the difference is slight.

Nitrogen concentrations (TN) were very low.

### Relative Rank for Clearwater Lake, Site 3

