

# Cameron City Reservoir #3

Cameron City Reservoir #3 provides drinking water for the City of Cameron. There are 2 other reservoirs in close proximity (reservoirs #1 and #2). Lake construction was completed in 1961, making this the newest of the 3 reservoirs. This 93 acre lake has a very large watershed of 3300 acres.

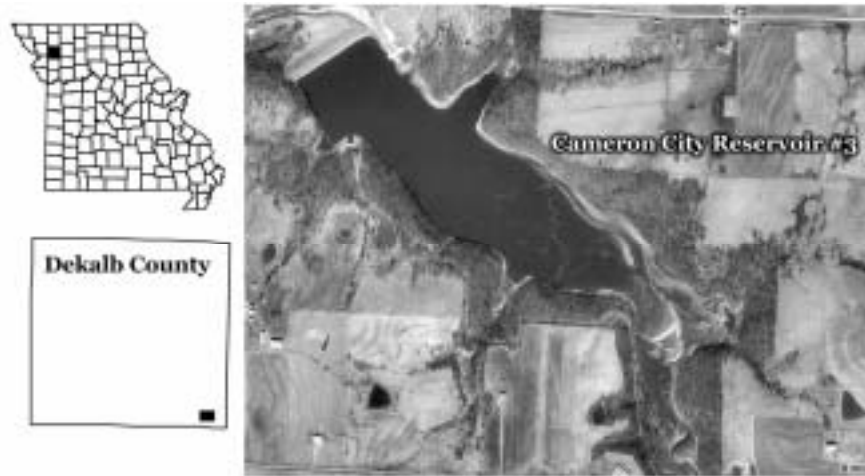


Figure 31. Location of Cameron City Reservoir #3

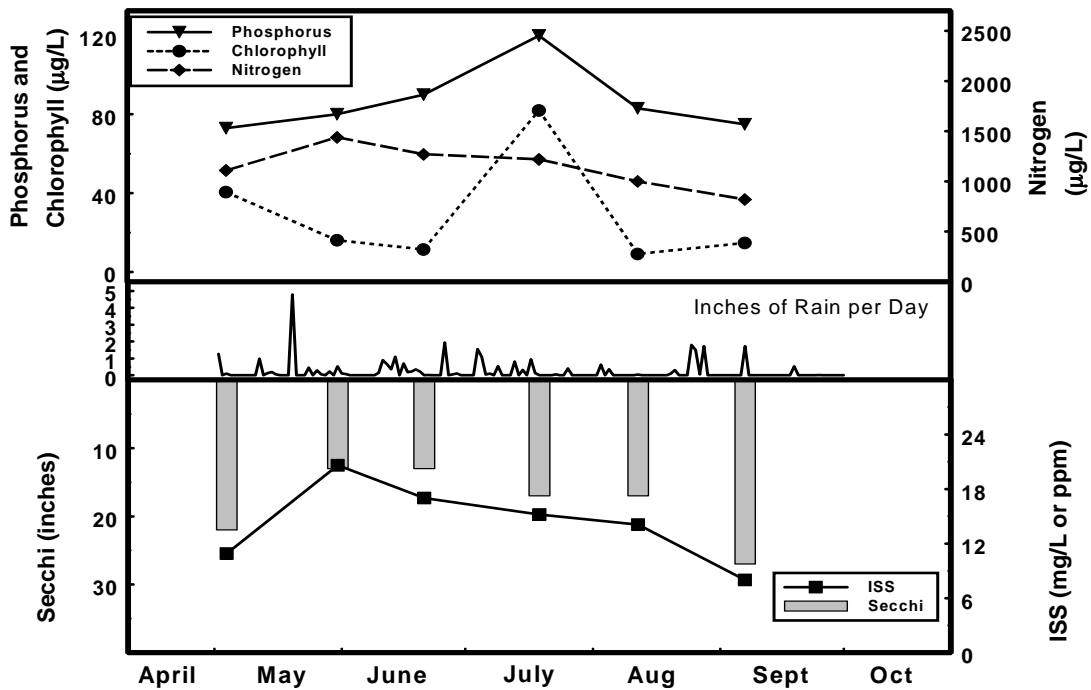


Figure 32. Seasonal fluctuations of parameters for Cameron City Reservoir #3 – 2004

Table 8. Descriptive statistics for Cameron City Reservoir #3 – 2004

	<b>Secchi (inches)</b>	<b>TP (ug/L)</b>	<b>TN (ug/L)</b>	<b>CHL (ug/L)</b>	<b>ISS (mg/L)</b>
<b>Geometric Mean</b>	18	86	1125	20.8	13.7
<b>Minimum</b>	13	73	820	9.1	8.0
<b>Maximum</b>	27	120	1440	81.9	20.6
<b>Number of Samples</b>	6	6	6	6	6

2004 Results

Figure 32 shows how the parameters nitrogen, phosphorus, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Cameron City Reservoir #3 during 2004. The descriptive statistics appear in Table 8.

A brief description of the results:

- Cameron City Reservoir #3 had high concentrations of nutrients and chlorophyll in 2004.
- ISS concentrations were never lower than 8 mg/L, indicating turbid inputs from the watershed.
- Secchi transparency values were very low and strongly related to ISS concentrations.
- Due to high ISS concentrations causing shading, algal biomass is low relative to nutrient concentrations.
- Algae responded to a mid-July peak in phosphorus.
- A huge rain event on May 19 brought 4.8 inches of rain in a single day (as measured in nearby Hamilton, MO). ISS concentration 11 days afterward was a seasonal high of 20.6 mg/L.

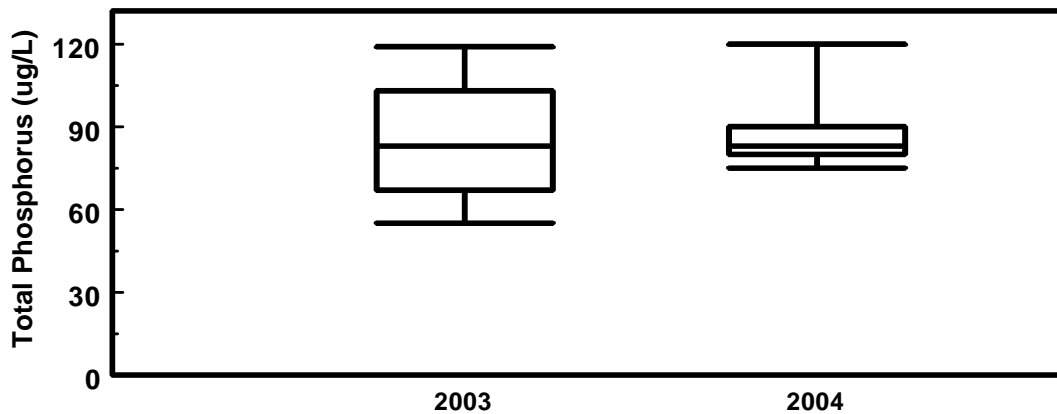


Figure 33. Phosphorus trends in Cameron City Reservoir #3. Concentrations in 2004 were similar to 2003.