

Flat Creek – Tributary to Table Rock Lake

Because of recurring June chlorophyll peaks in the Flat Creek Arm of Table Rock (Figure 132), three sites were added in Flat Creek. The goal was to determine the source of the nutrients that were driving the June algal blooms.

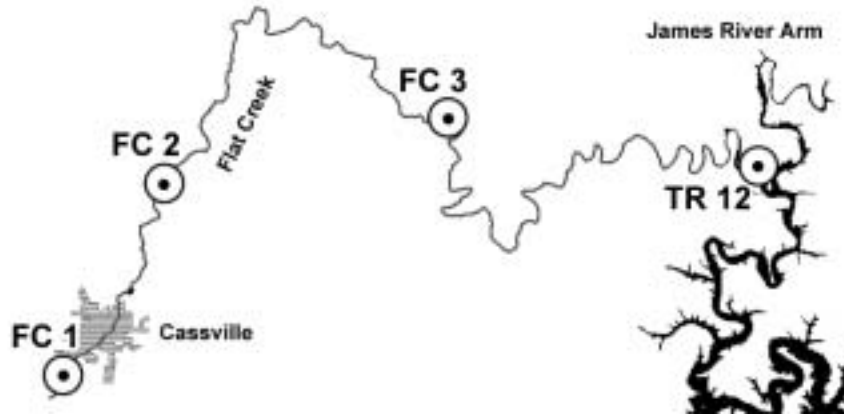


Figure 131. Sample locations on Flat Creek

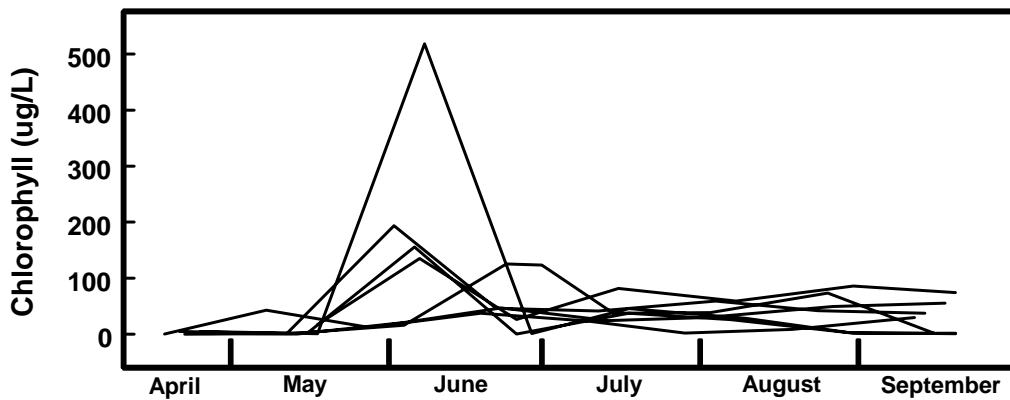


Figure 132. Chlorophyll concentrations 1998 – 2004 at Table Rock Lake, Site 12

Parameters		FC 1	FC 2	FC 3	TR 12
Phosphorus (ug/L)	Mean	21	65	36	71
	Minimum	18	37	24	27
	Maximum	37	87	102	114
Nitrogen (ug/L)	Mean	2640	2130	2224	1238
	Minimum	2410	1720	1530	940
	Maximum	2960	2810	3750	2030
ISS (mg/L)	Mean	0.7	1.7	2.6	
	Minimum	0.3	0.5	1.7	
	Maximum	1.1	4.6	4.7	

Table 50. Summary statistics for Flat Creek, 2004

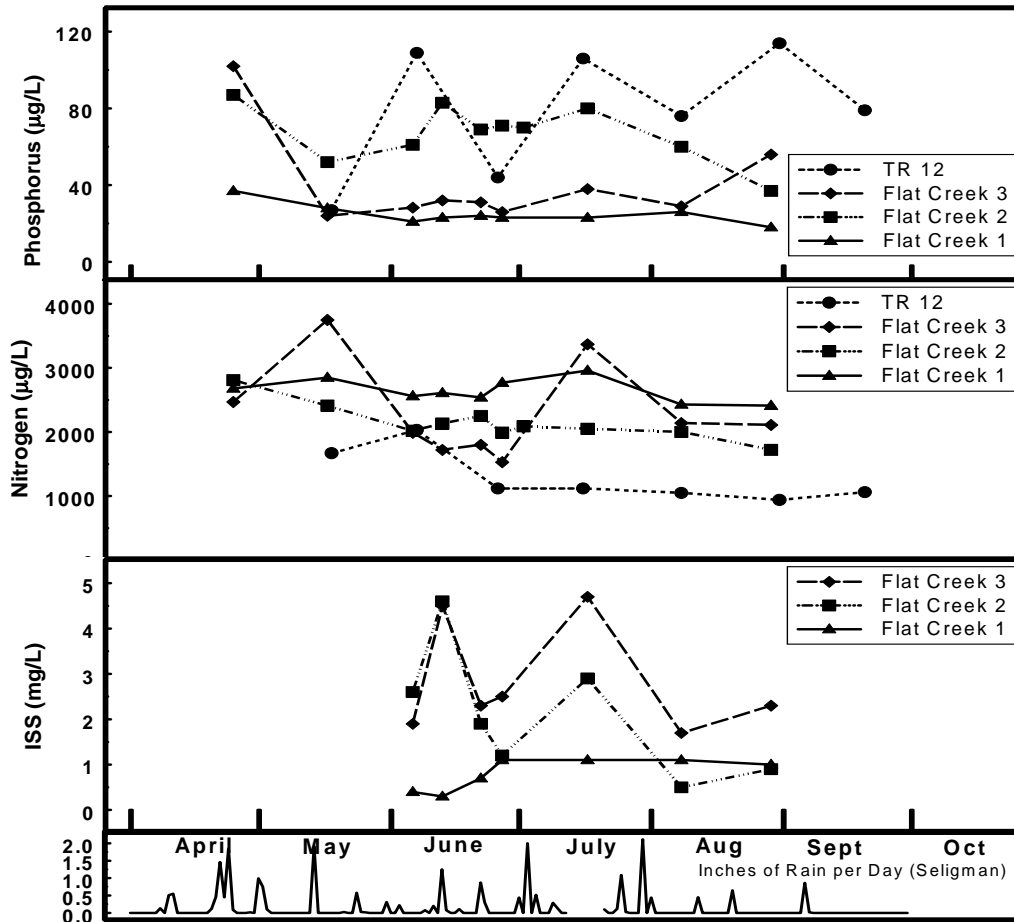


Figure 133. 2004 Seasonal fluctuations of parameters for Flat Creek Sites 1, 2, 3, and Table Rock Lake, Site 12.

Although phosphorus concentrations triple, on average, from FC 1 to FC 2, they drop by nearly half at FC 3. The increase from FC 1 to FC 2 might be attributed to point and nonpoint sources in the Cassville area. Phosphorus concentrations then double again from FC 3 to Table Rock Site 12.

Nitrogen was extremely high throughout Flat Creek, with the highest mean concentration at FC 1 and the mean concentration at Table Rock Site 12 about half of that.

ISS concentrations were low at all Flat Creek Sites (ISS not measured at Table Rock Site 12). This suggests that there is not a large influence of soil materials (which often carry nutrients) in Flat Creek. The nutrients in Flat Creek are not tied to soil, but to some other point or nonpoint source.

Hopefully, continued monitoring will allow us to track down the source of the nutrients.