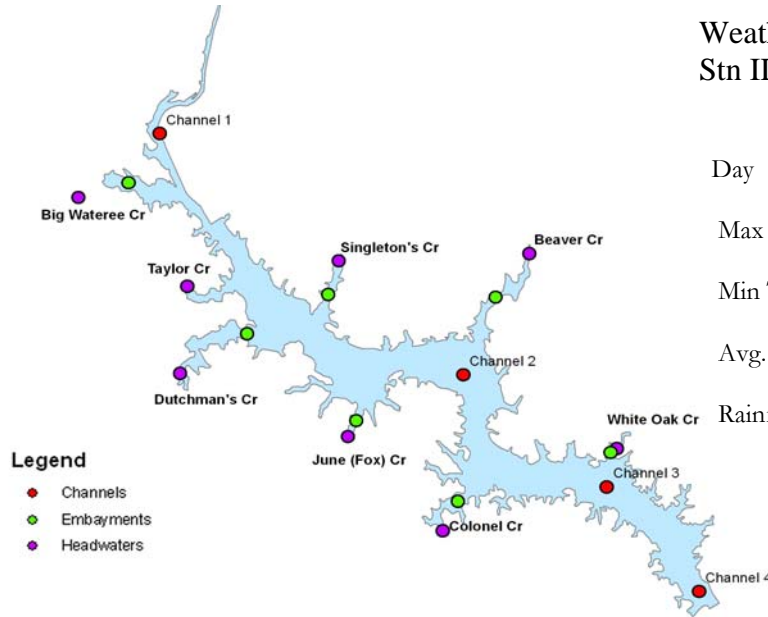


Report on Sample Run August 13, 2010

Our latest sample run was completed on Friday, August 13, 2010 at all twenty sample sites. Cynthia Wood skippered the Water Watch boat and along with USC student Allyson Shea sampled the headwaters. For sampling the embayments and channels, Brenda Worthington was at the helm of her boat and Dan Tufford and Warren Hankinson took care of the sampling. It occurred to me while sitting in high-90s heat under a blazing sun that sampling is not as much “fun” as some might think. But it beats December-March so no complaints here.



Weather Conditions at Wateree Dam Stn ID: 388979

Day	Fri 13th	Thur 12th	Prev. 7 days
Max Temp	99	97	95
Min Temp	75	77	73
Avg. Temp	87	87	84.1
Rainfall (in.)	0.00	0.00	0.00

The water quality compliance index was 77%, compared to the historic index of 86.5% for the same time of year (August). This means that of the 57 surface water samples taken (i.e., those at 1 ft below the surface) 23% (or 13 of the 57 samples taken) were *not* in compliance with SCDHEC water quality criteria. The SCDHEC turbidity criterion (25 NTU) was exceeded at only two stations: Big Wateree Creek headwater and Channel 4. This month, similar to all summer, the pH was the main source of exceedence, with eleven of the nineteen samples being out of compliance at greater than the upper range value of 8.5. There were no DO readings out of compliance this month. As we have seen throughout the growing season, the high pH values probably reflect a high rate of photosynthesis in the phytoplankton community. This was also seen in the high dissolved oxygen (DO) concentrations observed at stations with elevated pH.

In the historical data from 1999, 2000, 2003, 2008 and 2009, all three criteria were exceeded. Similar to what was found on this sampling run, the pH exceedences were always greater than the upper accepted range. All of the historical DO values out of compliance (less than 4mg) came from the year 1999 and 2009. And all the turbidity exceedences came from the years 1999, 2000 and 2008, almost exclusively occurring at the headwater locations.