# **Chapter 13 -Cape Fear River Subbasin 03-06-13** Includes Upper Little River and Barbeque Creek

## **13.1** Water Quality Overview

Subbasin 03-06-13 at a Glance					
<u>Land and Water Area (sq. mi.)</u>					
Total area: 221					
Land area: 219					
Water area: 2					
Population Statistics					
1990 Est. Pop.: 23,913 people					
Pop. Density: 109 persons/mi <sup>2</sup>					
Land Cover (%)					
Forest/Wetland: 65.2					
Surface Water: 2.0					
Urban: 1.3					
Cultivated Crop: 23.4					
Pasture/					
Managed Herbaceous: 8.1					
Use Support Ratings					
Freshwater Streams:					
Fully Supporting: 151.8 mi.					
Partially Supporting: 0.0 mi.					
Not Supporting: 0.0 mi.					
Not Rated: 27.8 mi.					

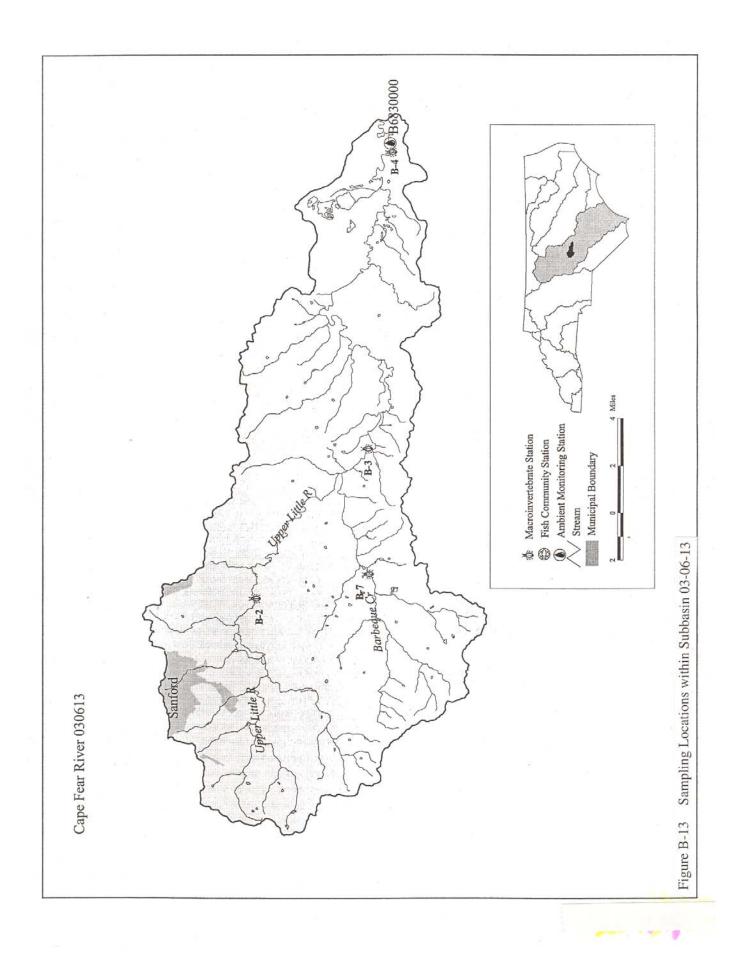
This subbasin lies within the Sand Hills and contains no urban areas (though Sanford and Lillington are just outside the subbasin), and most of the land is forested or used for agriculture. A map of the subbasin, including water quality sampling locations, is presented in Figure B-13.

Biological ratings for these sample locations are presented in Table B-13. There are no impaired streams in this subbasin. Refer to Appendix III for a complete listing of monitored waters and use support ratings.

Three sites were sampled for benthos on the Upper Little River in the headwaters, the middle section and at the ambient site near its mouth. The headwater and middle sites were barely flowing, while the downstream site had good flow. The benthos ratings indicate a progressive improvement in water quality going downstream in this agricultural watershed: Good-Fair to Good to Excellent. Only the downstream site improved, compared to 1993 when it was Good. Barbeque Creek, a slow-flowing tributary of the Upper Little River, was given a Good-Fair bioclassification in 1998; the same rating it had in 1993.

For more detailed information on water quality in this

subbasin, refer to *Basinwide Assessment Report – Cape Fear River Basin – June 1999*, available from DWQ Environmental Sciences Branch at (919) 733-9960.



BENTHOS			Bioclassification		
Site #	Stream	County	Location	1993	1998
B-2	Upper Little River	Harnett	SR 1222	Good-Fair	Good-Fair
B-3	Upper Little River	Harnett	NC 27	Good	Good
B-4	Barbeque Creek	Harnett	SR 1209	Good-Fair	Good-Fair
B-7	Upper Little River	Harnett	SR 2021	Good	Excellent

Table B-13Biological Assessment Sites in Cape Fear River Subbasin 03-06-13

#### **13.2** Impaired Waters

All streams in this subbasin were fully supporting (FS) in the 1996 Cape Fear River Basinwide Water Quality Plan and are currently fully supporting (FS) based on recent DWQ monitoring. 303(d) listed waters are summarized in Part 13.3 and waters with other issues, recommendations or projects are discussed in Part 13.4.

### 13.3 303(d) Listed Waters

There are no streams in the subbasin that are impaired and on the state's year 2000 303(d) list (not yet EPA approved). For information on 303(d) listing requirements and approaches, refer to Appendix IV.

### **13.4** Other Issues, Recommendations and Projects

DWQ encourages the use of voluntary measures to prevent water quality degradation. Enforcement of sediment and erosion control laws will help to reduce impacts on area streams. Education on local water quality issues is always a useful tool to prevent water quality problems and to promote restoration efforts. For information on water quality education programs, workshops and nonpoint source agency contacts, see Appendix V.

#### The Middle Cape Fear River Basin Association (MCFRBA)

The Middle Cape Fear River Basin Association (MCFRBA) started sampling at one station in this subbasin (30 stations total) in July 1998. This data will be used to give a higher resolution picture of water quality conditions in the Upper Little River. The data will also be analyzed to support various studies and will be used with DWQ data to develop use support ratings for waters in the Cape Fear River basin during the upcoming basinwide cycle.