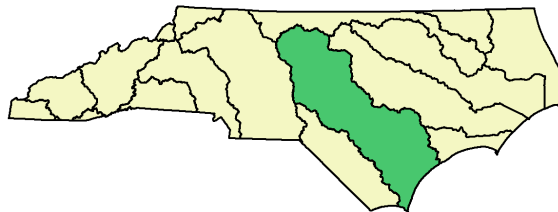




# Cape Fear River Basin Ambient Monitoring System Report

January 1, 2004 through December 31, 2008



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### Evaluation Levels

In order to assist the reader in developing a rapid understanding of the summary statistics provided throughout this data review, concentrations of water quality variables may be compared to an Evaluation Level (EL). Evaluation levels may be a water quality standard, an action level, an ecological threshold, or simply an arbitrary threshold that facilitates a rapid data review. Evaluation levels are further examined for frequency to determine if they have been exceeded in more than 10 percent of the observed samples. This summary approach facilitates a rapid and straightforward presentation of the data but may not be appropriate for making specific use support decisions necessary for identification of impaired waters under the Clean Water Act's requirements for 303(d) listings. The reader is advised to review the states 303(d) listing methodology for this purpose. (see [http://h2o.enr.state.nc.us/tmdl/General\\_303d.htm](http://h2o.enr.state.nc.us/tmdl/General_303d.htm)).

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## EXECUTIVE SUMMARY

A general understanding of human activities and natural forces that affect pollution loads and their potential impacts on water quality can be obtained through routine sampling from fixed water quality monitoring stations. During this assessment period (January 1, 2004 through December 31, 2008) chemical and physical measurements were obtained by the Division of Water Quality (DWQ) from 73 stations located throughout the Cape Fear River Basin.

In addition to the 73 sites monitored by DWQ, there are 124 sites in the basin that are monitored by discharger coalitions. Twenty-eight of these sites are monitored by both DWQ and the discharger coalitions, which allows for comparison of results. Based on the results nearly all parameters are comparable, with the exception of fecal coliform. This may be due to differences in holding times or perhaps differences in flow or runoff on sampling days.

In order to evaluate acceptable water quality criteria at least 10 observations are desired. If at least 10 results were collected for a given site for a given parameter, the results are then compared to water quality evaluation levels. The water quality evaluation level may be an ecological evaluation level, a narrative or a numeric standard. If less than 10 results were collected, then no comparison to evaluation levels was made. When more than 10 percent of the results exceeded the evaluation level (10% criteria), a binomial statistical test was employed to determine how much statistical confidence there is that the results statistically exceed the 10% criteria. If at least 95% confidence was found that a 10% exceedance occurred, then that is termed a statistically significant exceedance (SSE). This method was applied for all parameters with an evaluation level, except for fecal coliform bacteria, which uses a 20% criteria in most waters as well as a geometric mean criteria. See page 18 for an explanation of fecal coliform methods. The results of the data analysis are displayed in tables, box plots, scatter plots, and maps. For complete summaries on each station, reference the AMS Station Summary Sheets located in Appendix A.

Ninety-nine sites did not have any 10% exceedances. A total of 43 locations were found with SSEs. Nine of these were found to have more than one SSE. SSEs were found for pH at 20 sites, for fecal coliform screening at 17 sites, for dissolved oxygen at 13 sites, for turbidity at three sites, for chlorophyll a at two sites, for total nitrates and nitrites at one site, and chloride at one site. Twenty-nine sites with 10% exceedances did not rise to the level of SSEs.

**Table 1** summarizes areas of potential concern in the Cape Fear River Basin using these criteria. While reading the table please note the following: The majority of the parameters listed are compared directly to their standards. There is one exception, however. The fecal coliform standard requires that five samples be taken in the span of 30 days, which was not done for the ambient data. Therefore the review of fecal coliform ambient data should be used for screening only. A summary of the evaluation level data is included as **Figure 1**.

Analysis of long term trends (ten years) reveals generally improving trends in water quality in the Deep River and Haw River Hydrologic Units (HUs) based on improving ammonia concentrations and fecal coliform counts among other parameters. Conversely, the other four HUs in the basin were found to have generally worsening water quality. The strongest indicator of changing water quality in these trends was fecal coliform; five of the six HUs were found to have statistically significant trends in fecal coliform counts. Note that this analysis only includes river data, not lake sampling data.

Geographically, there are three urban areas that appear to have to have issues: Durham, Fayetteville, and Wilmington. New Hope Creek and Northeast Creek in Durham each have multiple issues with chlorophyll a, pH, turbidity, dissolved oxygen, and fecal coliform. In Fayetteville, there are issues with fecal coliform and dissolved oxygen. In the Wilmington area there are concerns with pH, dissolved oxygen, and turbidity. Urban areas often have multiple sources of issues, including wastewater treatment plants, stormwater runoff, and lack of adequate vegetative buffers around stream.

For a stretch of the Cape Fear River from Navassa to Channel Marker 61 in Wilmington, low dissolved oxygen is an issue of note. The Cape Fear River in this area is not classified as swamp. But in this stretch are the mouths of the Black River and the Northeast Cape Fear River. Both of those river systems contain large areas of swamp. Seven stations in this stretch of the Cape Fear have SSEs for dissolved oxygen. The low dissolved oxygen of the Wilmington area Cape Fear stations may be related to the influx of swamp water and other issues.

Note that although nutrient concentrations were assessed in this document, no loading analysis was done. Flow effects and drought impacts also were not assessed.

**Table 1. Areas of Concern in the Cape Fear River Basin**

Station	Location	Stream Class	Agency	Parameter	%Exceed	%Conf
<b>HUC 03030002 : Haw River</b>						
B0070010	Troublesome Crk At Us 29 Bus Nr Reidsville	C NSW	UCFRBA	D.O. (<4 mg/L)	11.7%	75.2%
B0170000	Haw Riv At Sr 2620 High Rock Rd Nr Williamsburg	C NSW	UCFRBA	Fecal coliform (>400 col/100 mL)	21.3%	67.1%
B0480050	N Buffalo Crk At N Buffalo Crk Wwtp Influent Conduit Pier At Greensboro	C NSW	UCFRBA	Fecal coliform (>400 col/100 mL)	31.1%	98.7%
				Fecal coliform (Geomean >200 col/100 mL)	265	
B0540050	N Buffalo Crk At Sr 2770 Huffine Mill Rd Nr Mcleansville	C NSW	UCFRBA	Fecal coliform (>400 col/100 mL)	26.2%	91.2%
B0670000	S Buffalo Crk At Sr 3000 Mcconnell Rd Nr Greensboro	C NSW	UCFRBA	Fecal coliform (>400 col/100 mL)	24.6%	85.4%
B0750000	S Buffalo Crk At Sr 2821 At Mcleansville	C NSW	NCAMBNT	Fecal coliform (>400 col/100 mL)	24.6%	84.8%
				Fecal coliform (Geomean >200 col/100 mL)	222	
			UCFRBA	Fecal coliform (>400 col/100 mL)	27.9%	95.0%
Fecal coliform (Geomean >200 col/100 mL)	265					
B1140000	Haw Riv At Nc 49N At Haw River	C NSW	NCAMBNT	Fecal coliform (>400 col/100 mL)	25.0%	86.4%
B1260000	Town Branch At Sr 2109 Nr Graham	C NSW	NCAMBNT	Fecal coliform (>400 col/100 mL)	28.6%	95.7%
B1350000	Moadams Crk At Corrigdor Rd Ups Of Discharge Nr Mebane	C NSW	UCFRBA	Fecal coliform (>400 col/100 mL)	21.7%	69.4%
B1940000	Big Alamance Crk At Nc 87 Nr Swepsonville	C NSW	UCFRBA	Fecal coliform (>400 col/100 mL)	21.7%	69.4%
B2100000	Haw Riv At Sr 1713 Nr Bynum	WS-IV NSW	NCAMBNT	Turbidity (>50 NTU)	11.7%	75.2%
B2450000	Robeson Crk At Boat Access Off Sr 1943 Nr Hanks Chapel	WS-IV B NSW CA	NCAMBNT	pH (>9 SU)	11.1%	70.7%
				Chlorophyll a (>40 ug/L)	38.8%	100.0%
			UCFRBA	pH (>9 SU)	21.2%	99.9%
Turbidity (>25 NTU)	16.7%	96.6%				
B3020000	New Hope Crk At Nc 54 Nr Durham	WS-IV NSW	UCFRBA	D.O. (<4 mg/L)	29.4%	100.0%
				Fecal coliform (>400 col/100 mL)	28.3%	95.7%
B3025000	Third Fork Crk At Nc 54 Nr Durham	WS-IV NSW	UCFRBA	D.O. (<4 mg/L)	23.3%	99.9%
				Fecal coliform (>400 col/100 mL)	25.0%	86.9%
				Fecal coliform (Geomean >200 col/100 mL)	218	
B3040000	New Hope Crk At Sr 1107 Nr Blands	WS-IV NSW	UCFRBA	Fecal coliform (>400 col/100 mL)	25.0%	86.9%
				Turbidity (>50 NTU)	11.7%	75.2%
B3300000	Northeast Crk At Sr 1102 Sedwick Rd Nr Rtp	WS-IV NSW	UCFRBA	D.O. (<4 mg/L)	27.1%	100.0%
				Fecal coliform (>400 col/100 mL)	26.7%	92.3%
				Turbidity (>50 NTU)	11.7%	75.2%
B3670000	Northeast Crk At Sr 1731 O Kelly Church Rd Nr Durham	WS-IV NSW	UCFRBA	Fecal coliform (>400 col/100 mL)	28.3%	95.7%
				Turbidity (>50 NTU)	38.3%	100.0%
B3899180	Morgan Crk At Mason Farm Wwtp Entrance At Chapel Hill	WS-IV NSW	UCFRBA	Fecal coliform (>400 col/100 mL)	25.0%	86.9%
				Fecal coliform (Geomean >200 col/100 mL)	202	
B3900000	Morgan Crk At Sr 1726 Nr Farrington	WS-IV NSW	NCAMBNT	Total Nitrate and Nitrite as Nitrogen (>10 mg/L)	11.4%	75.2%
				Total Nitrate and Nitrite as Nitrogen (>10 mg/L)	13.3%	85.8%
			UCFRBA	Fecal coliform (>400 col/100 mL)	26.7%	92.3%
				Fecal coliform (Geomean >200 col/100 mL)	236	

**Table 1. Areas of Concern in the Cape Fear River Basin (cont.)**

Station	Location	Stream Class	Agency	Parameter	%Exceed	%Conf
<b>HUC 03030003 : Deep River</b>						
B4240000	E Fork Deep Riv At Sr 1541 Nr High Point	WS-IV*	NCAMBNT	Turbidity (>50 NTU)	11.7%	75.2%
B4350000	Deep Riv At Sr 1113 Kivett Dr Nr Hayworth Spring	WS-IV CA*	UCFRBA	D.O. (<4 mg/L)	11.6%	76.1%
B4380000	Richland Crk At Sr 1154 Kersey Valley Rd Nr High Point	WS-IV CA*	UCFRBA	Fecal coliform (>400 col/100 mL)	30.0%	97.8%
B4440000	Deep Riv At Sr 1129 Nr High Point	WS-IV CA*	UCFRBA	Fecal coliform (>400 col/100 mL)	26.7%	83.6%
B4626000	Muddy Crk At Sr 1929 Cedar Square Rd Nr Glenola	WS-IV*	UCFRBA	Fecal coliform (>400 col/100 mL)	38.9%	98.4%
				Fecal coliform (Geomean >200 col/100 mL)	312	
B4800000	Deep Riv At Sr 2122 At Worthville	C	NCAMBNT	Turbidity (>50 NTU)	13.3%	81.6%
			UCFRBA	Fecal coliform (>400 col/100 mL)	23.7%	81.2%
B4850000	Haskett Crk At Us 220 Bus Nr North Asheboro	C	UCFRBA	D.O. (<4 mg/L)	14.8%	87.3%
				Fecal coliform (>400 col/100 mL)	22.2%	71.3%
				Fecal coliform (Geomean >200 col/100 mL)	244	
B4870000	Haskett Crk At Asheboro Wwtp Bridge Nr Asheboro	C	UCFRBA	Fecal coliform (>400 col/100 mL)	27.3%	89.3%
				Turbidity (>50 NTU)	14.7%	88.1%
B4920000	Deep Riv At Sr 2261 Old Liberty Rd Nr Central Falls	C	UCFRBA	Fecal coliform (>400 col/100 mL)	23.7%	81.2%
B5070000	Deep Riv At Sr 2615 At Ramseur	C	NCAMBNT	Turbidity (>50 NTU)	13.3%	81.6%
B5100000	Deep Riv At Sr 2628 Hinshaw Town Rd Nr Parks Crossroads	C	UCFRBA	Fecal coliform (>400 col/100 mL)	20.3%	60.2%
B5390800	Cotton Crk At Sr 1372 Auman Rd Nr Star	WS-III	UCFRBA	Fecal coliform (>400 col/100 mL)	66.7%	100.0%
				Fecal coliform (Geomean >200 col/100 mL)	607	
B5480000	Bear Crk At Nc 705 At Robbins	C	NCAMBNT	D.O. (<4 mg/L)	10.2%	63.5%
				pH (<6 SU)	13.5%	85.6%
B5575000	Deep Riv At Nc 42 At Carabonton	WS-IV HQW	UCFRBA	D.O. (<4 mg/L)	11.1%	73.4%
				Fecal coliform (>400 col/100 mL)	37.5%	97.3%
				Turbidity (>50 NTU)	11.8%	76.2%
B5685000	Deep Riv At Deep River Park Bridge Nr Cumnock	C	UCFRBA	Fecal coliform (>400 col/100 mL)	23.3%	79.3%
B5820000	Deep Riv At Us 15 And 501 Nr Sanford	C	UCFRBA	Fecal coliform (>400 col/100 mL)	21.7%	69.4%
B5950000	Rocky Riv At Us 64 Nr Siler City	WS-III CA	UCFRBA	D.O. (<4 mg/L)	12.9%	86.0%
B5980000	Rocky Riv At Sr 2170 Rives Chapel Rd Nr Siler City	WS-III CA	UCFRBA	Total Nitrate and Nitrite as Nitrogen (>10 mg/L)	31.7%	100.0%
B6000000	Rocky Riv At Nc 902 Nr Pittsboro	WS-III CA	NCAMBNT	Total Nitrate and Nitrite as Nitrogen (>10 mg/L)	10.9%	69.0%

**Table 1. Areas of Concern in the Cape Fear River Basin (cont.)**

Station	Location	Stream Class	Agency	Parameter	%Exceed	%Conf
<b>HUC 03030004 : Little River - Cape Fear River</b>						
B6130500	Lick Crk At Sr 1500 Nr Corinth	WS-IV	MCFRBA	D.O. (<4 mg/L)	25.0%	100.0%
B6200000	Buckhorn Crk At Nc 42 Nr Fuquay Varina	C	MCFRBA	D.O. (<4 mg/L)	15.0%	86.7%
B6830000	Upper Little Riv At Sr 2021 Nr Lillington	WS-IV	MCFRBA	pH (<6 SU)	21.7%	99.8%
B7245000	Lower Little Riv At Sr 2023 Nr Lobelia	WS-III HQW	NCAMBNT	pH (<6 SU)	63.5%	100.0%
B7280000	Lower Little Riv At Sr 1451 At Manchester	C	MCFRBA	pH (<6 SU)	38.9%	100.0%
			NCAMBNT	pH (<6 SU)	44.0%	100.0%
B7300000	Lower Little Riv At Nc 210 Nr Spring Lake	C	MCFRBA	pH (<6 SU)	41.7%	100.0%
B7547000	Cross Crk At Cross Creek Park At Fayetteville	C	MCFRBA	Fecal coliform (>400 col/100 mL)	25.3%	91.1%
B7584000	Blounts Crk At Us 301A Person St At Fayetteville	C	MCFRBA	Fecal coliform (>400 col/100 mL)	54.8%	100.0%
				Fecal coliform (Geomean >200 col/100 mL)	562	
B7584800	Ut To Cross Crk Off Anne St At Fayetteville	C	MCFRBA	Fecal coliform (>400 col/100 mL)	41.4%	100.0%
				Fecal coliform (Geomean >200 col/100 mL)	275	
B7584900	Ut To Cross Crk At Cross Creek Wrf At Fayetteville	C	MCFRBA	D.O. (<4 mg/L)	22.5%	99.5%
				Fecal coliform (>400 col/100 mL)	38.5%	99.8%
				Fecal coliform (Geomean >200 col/100 mL)	331	
B7590000	Cross Crk At Us 301 Bus And I 95 Bus At Fayetteville	C	MCFRBA	Fecal coliform (>400 col/100 mL)	36.7%	99.9%
				Fecal coliform (Geomean >200 col/100 mL)	256	
B7679300	Rockfish Crk At Us 401 Bypass Nr Raeford	B	MCFRBA	pH (<6 SU)	100.0%	100.0%
B7700000	Rockfish Crk At Sr 1432 Nr Raeford	B	MCFRBA	pH (<6 SU)	78.3%	100.0%
			NCAMBNT	Fecal coliform (>400 col/100 mL)	25.0%	86.9%
B8224000	Rockfish Crk At Sr 2350 Nr Cedar Creek	C	NCAMBNT	pH (<6 SU)	55.8%	100.0%
B8230000	Rockfish Crk At Nc 87 Nr Fayetteville	C	MCFRBA	pH (<6 SU)	49.1%	100.0%
				pH (<6 SU)	63.8%	100.0%
<b>HUC 03030005 : Cape Fear River</b>						
B8300000	Cape Fear Riv At Wo Huske Lock Nr Tar Heel	C	NCAMBNT	pH (<6 SU)	15.1%	92.2%
B8315000	Harrison Crk At Sr 1320 At Burney	C	MCFRBA	pH (<6 SU)	96.6%	100.0%
B8321000	Turnbull Crk At Sr 1509 Nr Johnstontown	C	NCAMBNT	D.O. (<4 mg/L)	11.3%	72.3%
				pH (<6 SU)	100.0%	100.0%
B8340100	Turnbull Crk At Us 701 Nc 53 And Nc 41 Nr Elizabethtown	C	MCFRBA	pH (<6 SU)	94.8%	100.0%
B8340200	Hammond Crk At Sr 1704 Nr Mount Olive	C	LCFRP	D.O. (<4 mg/L)	11.7%	75.2%
B9050000	Cape Fear Riv At Navassa	SC	NCAMBNT	D.O. (<5 mg/L)	31.4%	100.0%
				pH (<6.8 SU)	34.6%	100.0%
B9050025	Cape Fear Riv Dns Rr Bridge At Navassa	SC	LCFRP	D.O. (<5 mg/L)	48.1%	100.0%
				pH (<6.8 SU)	31.1%	100.0%
				Turbidity (>25 NTU)	18.3%	98.5%
B9050100	Cape Fear Riv At Horseshoe Bend Nr Wilmington	SC	LCFRP	D.O. (<5 mg/L)	45.9%	100.0%
				pH (<6.8 SU)	25.9%	100.0%
B9790000	Brunswick Riv Dns Nc 17 At Park Nr Belville	SC	LCFRP	D.O. (<5 mg/L)	20.0%	99.4%
B9795000	Cape Fear Riv At Cm 54	SC	LCFRP	D.O. (<5 mg/L)	20.5%	99.9%

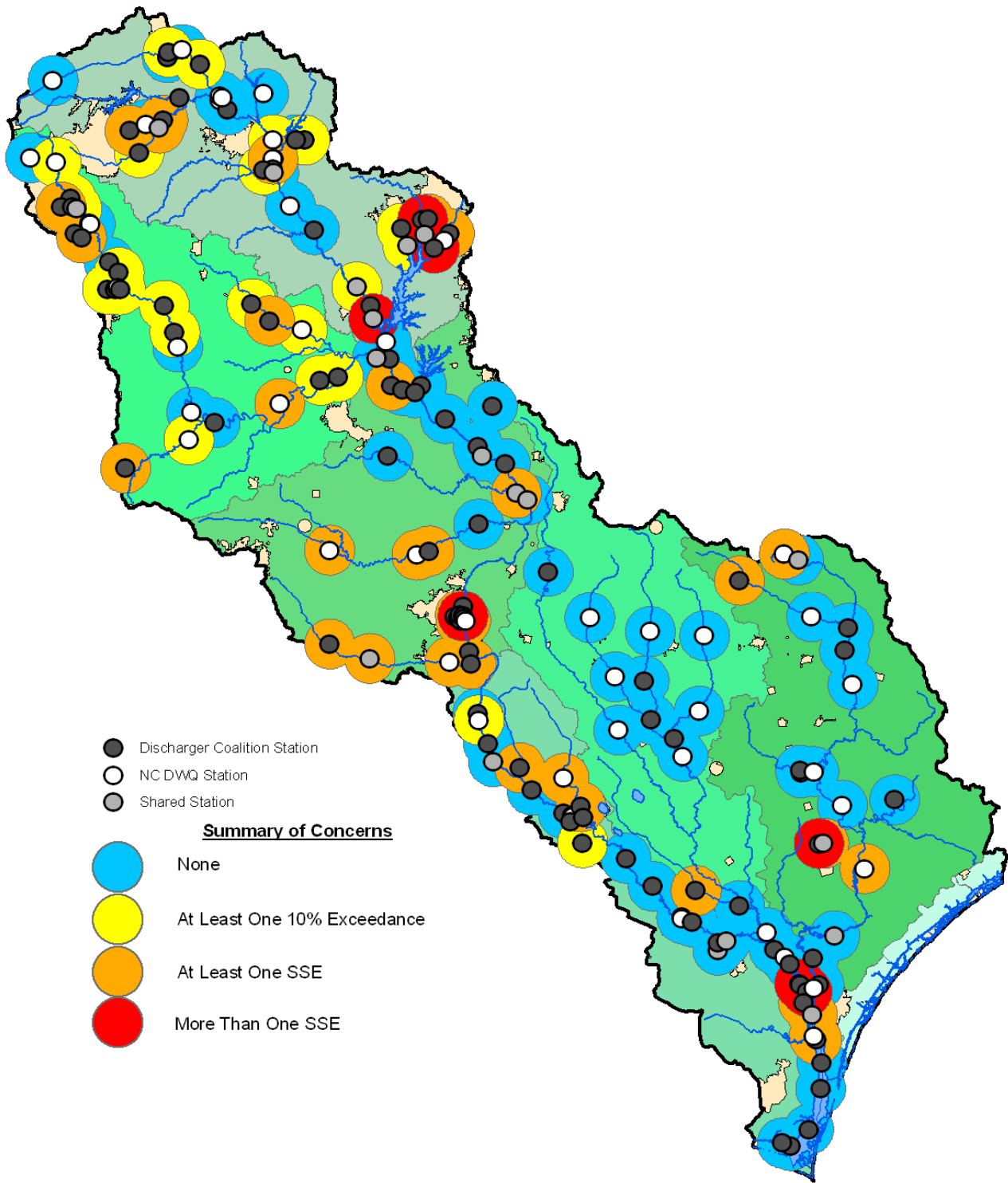


**Table 1. Areas of Concern in the Cape Fear River Basin (cont.)**

Station	Location	Stream Class	Agency	Parameter	%Exceed	%Conf
<b>HUC 03030005 : Cape Fear River</b>						
B9800000	Cape Fear Riv At Cm 61 At Wilmington	SC	LCFRP	D.O. (<5 mg/L)	32.5%	100.0%
				pH (<6.8 SU)	12.0%	79.5%
B9820000	Cape Fear Riv At Cm 56 Nr Wilmington	SC	NCAMBNT	D.O. (<5 mg/L)	26.9%	100.0%
				pH (<6.8 SU)	17.0%	96.5%
B9820000	Cape Fear Riv At Cm 56 Nr Wilmington	SC	NCAMBNT	D.O. (<5 mg/L)	19.2%	98.7%
				pH (<6.8 SU)	13.2%	84.4%
<b>HUC 03030006 : Black River</b>						
B8981000	Colly Crk At Nc 53 At Colly	C Sw	LCFRP	pH (<4.3 SU)	87.7%	100.0%
<b>HUC 03030007 : Northeast Cape Fear River</b>						
B9080000	Northeast Cape Fear Riv At Sr 1937 Nr Mt Olive	C Sw	NCAMBNT	Chloride (>230 mg/L)	55.8%	100.0%
B9130000	Panther Crk Nr Faison	C Sw	LCFRP	Fecal coliform (>400 col/100 mL)	31.7%	98.9%
B9500000	Burgaw Creek At Sr 1345 Wright St At Burgaw	C Sw	LCFRP	Fecal coliform (Geomean >200 col/100 mL)	215	
				Chlorophyll a (>40 ug/L)	28.3%	95.7%
B9520000	Burgaw Creek At Us 117 At Burgaw	C Sw	LCFRP	Fecal coliform (>400 col/100 mL)	20.0%	96.7%
				Fecal coliform (Geomean >200 col/100 mL)	46.7%	100.0%
B9520000	Burgaw Creek At Us 117 At Burgaw	C Sw	NCAMBNT	Fecal coliform (>400 col/100 mL)	363	
				Fecal coliform (Geomean >200 col/100 mL)	31.0%	98.5%
B9520000	Burgaw Creek At Us 117 At Burgaw	C Sw	NCAMBNT	Fecal coliform (>400 col/100 mL)	258	
				Fecal coliform (Geomean >200 col/100 mL)		
B9550000	Lillington Crk At Sr 1520 Nr Stag Park	C Sw	NCAMBNT	pH (<4.3 SU)	43.9%	100.0%

SSEs are shown in **blue**.

Figure 1. A Summary of Concerns



## INTRODUCTION

The DWQ's Ambient Monitoring System (AMS) is a network of stream, lake, and estuarine stations strategically located for the collection of physical and chemical water quality data. The stations are located at convenient access points (e.g. bridge crossings) that are sampled on a monthly basis. These locations were chosen to characterize the effects of point source dischargers and nonpoint sources such as agriculture, animal operations, and urbanization within watersheds.

The data are used to identify long term trends within watersheds, to develop Total Maximum Daily Loads (TMDLs) and to compare measured values with water quality standards to identify possible areas of impairment. Parametric coverage is determined by freshwater or saltwater waterbody classification and corresponding water quality standards. Under this arrangement, core parameters are based on Class C waters with additional parameters added when justified (**Table 2**).

Within this document, an analysis of how monitoring results compare with water quality standards and evaluation levels is presented. An educational and conceptual overview of water quality standards is provided at: <http://www.epa.gov/waterscience/standards>. Specific information on North Carolina water quality standards is provided at: <http://h2o.enr.state.nc.us/csu/swstdsfaq.html>. A summary of selected water quality standards are listed in **Table 3**.

Water quality data are evaluated in five year periods. Some stations have little or no data for several parameters over the period. However, for the purpose of standardization, data summaries for each station are included in this report. DWQ monitored water quality and collected samples at 73 stations in the basin throughout the assessment period. The locations of the sampling sites are illustrated in **Figure 2**, and listed in **Table 4**.

In January 2007 the DWQ began collection of samples from a series of randomly determined sites. A description of the Random Sampling Program can be found here: <http://h2o.enr.state.nc.us/esb/rams.html>. There are currently four random sites located in the Cape Fear River Basin. Because this report assesses in a five-year window and RAMS stations will only have 2 years of data, they are not included in the ambient report. Once a sufficient number of samples have been collected statewide, RAMS data will be discussed in a separate report.

### **Discharger-Led Monitoring Coalitions**

Also within the Cape Fear River basin are monitoring stations maintained by discharger-led monitoring coalitions. There are three such coalitions operating in the basin, the Upper Cape Fear River Basin Association (UCFRBA), the Middle Cape Fear River Basin Association (MCFRBA), and the Lower Cape Fear River Program (LCFRP). Each contains a coalition of municipalities and industries that release treated wastewater into the Cape Fear River basin. These three coalitions began operation in 2000, 1998 and 1996, respectively. Like other discharger coalitions, the Cape Fear coalitions have taken an active role in monitoring water quality. The North Carolina coalition program provides an alternative to individual in-stream National Pollutant Discharge Elimination System (NPDES) permit monitoring requirements. The members of the Cape Fear coalitions collected water samples from 124 monitoring stations throughout the basin under agreement with DWQ. 28 of the stations monitored by Cape Fear coalitions are also monitored by DWQ. The locations of the coalition sampling sites are also illustrated in **Figure 2**, and listed in **Table 4**. Participation in the North Carolina coalition program does not affect effluent sampling requirements.

**Table 2. Parametric coverage for the Ambient Monitoring System.**

Parameter
Dissolved oxygen (s)
pH (s)
Specific conductance
Temperature (s)
Total phosphorus
Ammonia as N
Total Kjeldahl as N
Nitrate+nitrite as N (s)
Total suspended solids
Turbidity (s)
Fecal coliform bacteria (s)
Chlorophyll a (s)

Notes:

An 's' indicates the parameter has a standard.

Chlorophyll a and nutrient sampling is only done in areas of concern, such as NSW, estuaries, lakes, and areas with known enrichment issues.

**Table 3. Selected water quality standards**

Parameter	Standards for All Freshwater			Standards to Support Additional Uses		
	Aquatic Life	Human Health	Water Supply Classifications	Trout Water	HQW	Swamp Waters
Chloride (mg/l)	230		250			
Chlorophyll a (ug/L)	40 <sup>2</sup>			15 <sup>2</sup>		
Coliform, total (MFTCC/100 ml) <sup>3</sup>			50 <sup>2</sup> (WS-I only)			
Coliform, fecal (MFFCC/100 ml) <sup>4</sup>		200 <sup>2</sup>				
Dissolved oxygen (mg/L)	4.0 <sup>5,6</sup>			6.0		2, 6
Hardness, total (mg/L)			100			
Nitrate nitrogen (mg/L)			10			2, 6
pH (units)	6.0 - 9.0 <sup>2,6</sup>					
Solids, total suspended (mg/L)					10 Trout, 20 other <sup>7</sup>	
Turbidity (NTU)	50, 25 <sup>2</sup>			10 <sup>2</sup>		

Notes:

Standards apply to all classifications. For the protection of water supply and supplemental classifications, standards listed under Standards to Support Additional Uses should be used unless standards for aquatic life or human health are listed and are more stringent. Standards are the same for all water supply classifications (Administrative Code 15A NCAC 2B 0200, eff. August 1, 2004).

<sup>2</sup>Refer to 2B.0211 for narrative description of limits.

<sup>3</sup>Membrane filter total coliform count per 100 ml of sample.

<sup>4</sup>Membrane filter fecal coliform count per 100 ml of sample.

<sup>5</sup>An instantaneous reading may be as low as 4.0 mg/L, but the daily average must be 5.0 mg/L or more.

<sup>6</sup>Designated swamp waters may have a dissolved oxygen less than 5.0 mg/L and a pH as low as 4.3, if due to natural conditions.

<sup>7</sup>For effluent limits only, refer to 2B.0224(1)(b)(ii).

Parameter (µg/L, unless noted)	Standards for All Saltwater			Standards To Support Additional Uses	
	Aquatic Life	Human Health <sup>1</sup>	Class SA <sup>2</sup>	HQW	Swamp Waters
Chlorophyll a (corrected)	40 <sup>3</sup>				
Coliform, fecal (MFFCC/100ml) <sup>4</sup>		200 <sup>3</sup>	14 <sup>3</sup>		
Dissolved oxygen (mg/L)	5.0 <sup>5</sup>			6.0	3, 5
PH (units)	6.8 - 8.5 <sup>5</sup>				3, 5
Solids, total suspended (mg/L)				10 PNA <sup>6</sup> , 20 other <sup>7</sup>	
Turbidity (NTU)	25 <sup>3</sup>				

<sup>1</sup>Standards are based on consumption of fish only unless dermal contact studies are available, see 2B.0208 for equation.

<sup>2</sup>Class SA = shellfishing waters, see 2B.0101 for description.

<sup>3</sup>See 2B.0220 for narrative description of limits.

<sup>4</sup>MFFCC/100ml means membrane filter fecal coliform count per 100 ml of sample.

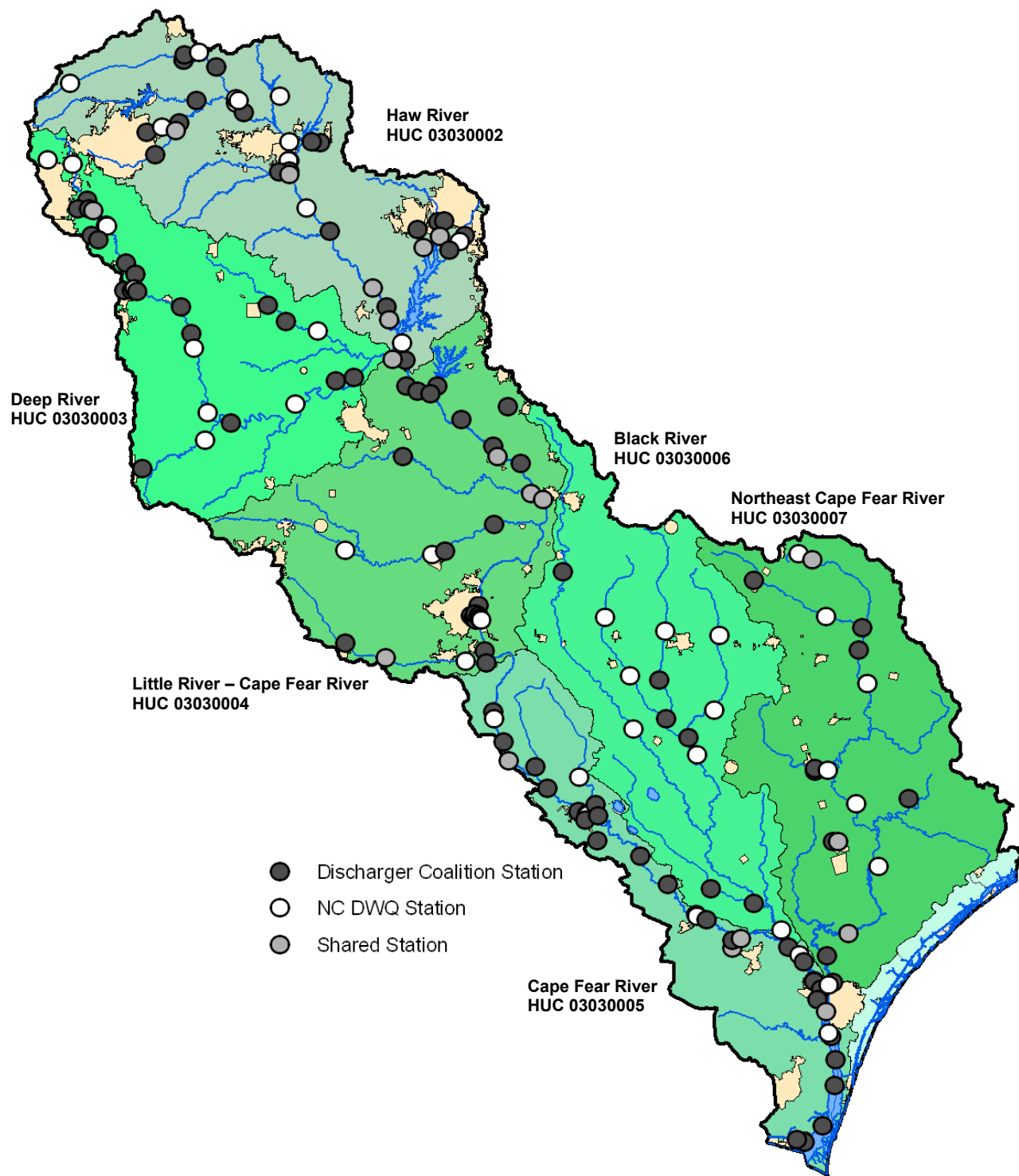
<sup>5</sup>Designated swamp waters may have a dissolved oxygen less than 5.0 mg/L and a pH as low as 4.3 s.u., if due to natural conditions.

<sup>6</sup>PNA = Primary Nursery Areas.

<sup>7</sup>For effluent limits only, see 2B.0224.

<sup>8</sup>Swamp waters, poorly flushed tidally influenced streams, or embayments, or estuarine bottom waters may have lower values if caused by natural conditions.

Figure 2. Monitoring Stations in the Cape Fear River Basin.



**Table 4. Monitoring stations in the Cape Fear River Basin, 2004 - 2008.**

Station	Agency	Active / Last Active Date	Stream Class	Location	Latitude	Longitude
<b>HUC 03030002: Haw River</b>						
B0040000	NCAMBNT	Active	C NSW	Haw Riv At Sr 2109 Nr Oak Ridge	36.21326	-79.9562
B0050000	NCAMBNT	3/7/2005	C NSW	Haw Riv At Us 29 Bus Nr Benaja	36.26517	-79.65226
B0050000	UCFRBA	Active	C NSW	Haw Riv At Us 29 Bus Nr Benaja	36.26517	-79.65226
B0070010	UCFRBA	Active	C NSW	Troublesome Crk At Us 29 Bus Nr Reidsville	36.2768	-79.64993
B0160000	NCAMBNT	Active	C NSW	Little Troublesome Crk At Sr 2600 Nr Reidsville	36.28255	-79.6116
B0170000	UCFRBA	Active	C NSW	Haw Riv At Sr 2620 High Rock Rd Nr Williamsburg	36.25143	-79.56475
B0190000	NCAMBNT	8/9/2004	C NSW	Haw Riv At Nc 87 Altamahaw	36.18241	-79.51022
B0210000	NCAMBNT	Active	C NSW	Haw Riv At Sr 1561 Nr Altamahaw	36.17864	-79.50415
B0400000	UCFRBA	Active	C NSW	Reedy Fork At Sr 2719 High Rock Rd Nr Monticello	36.1778	-79.61772
B0480050	UCFRBA	Active	C NSW	N Buffalo Crk At N Buffalo Crk Wwtp Influent Conduit Pier At Greensboro	36.1074	-79.75023
B0540000	NCAMBNT	Active	C NSW	N Buffalo Crk At Sr 2832 Nr Greensboro	36.11994	-79.70818
B0540050	UCFRBA	Active	C NSW	N Buffalo Crk At Sr 2770 Huffine Mill Rd Nr Mcleansville	36.12998	-79.6626
B0670000	UCFRBA	Active	C NSW	S Buffalo Crk At Sr 3000 Mcconnell Rd Nr Greensboro	36.05978	-79.72556
B0750000	NCAMBNT	Active	C NSW	S Buffalo Crk At Sr 2821 At Mcleansville	36.11278	-79.67181
B0750000	UCFRBA	Active	C NSW	S Buffalo Crk At Sr 2821 At Mcleansville	36.11278	-79.67181
B0840000	NCAMBNT	Active	C NSW	Reedy Fork At Nc 87 At Ossipee	36.17299	-79.51026
B0850000	UCFRBA	Active	C NSW	Haw Riv At Sr 1530 Gerringer Mill Rd Nr Ossipee	36.15314	-79.48945
B1095000	NCAMBNT	Active	WS-II HQW NSW	Jordan Crk At Sr 1754 Nr Union Ridge	36.18898	-79.39484
B1140000	NCAMBNT	Active	C NSW	Haw Riv At Nc 49N At Haw River	36.08889	-79.36822
B1200000	UCFRBA	Active	C NSW	Haw Riv At Nc 54 Nr Graham	36.04805	-79.36668
B1260000	NCAMBNT	Active	C NSW	Town Branch At Sr 2109 Nr Graham	36.04734	-79.36906
B1350000	UCFRBA	Active	C NSW	Moadams Crk At Corrigdor Rd Ups Of Discharge Nr Mebane	36.08852	-79.28443
B1380000	UCFRBA	Active	C NSW	Moadams Crk At Sr 1940 Gibson Rd Nr Florence Town	36.08913	-79.30747
B1440000	UCFRBA	Active	C NSW	Haw Riv At Sr 2158 Swepsonville Rd Nr Swepsonville	36.02562	-79.36821
B1940000	UCFRBA	Active	C NSW	Big Alamance Crk At Nc 87 Nr Swepsonville	36.0242	-79.3943
B1960000	NCAMBNT	Active	C NSW	Big Alamance Crk At Sr 2116 At Swepsonville	36.01774	-79.36703
B1960000	UCFRBA	Active	C NSW	Big Alamance Crk At Sr 2116 At Swepsonville	36.01774	-79.36703
B1980000	NCAMBNT	Active	C NSW	Haw Riv At Sr 2171 At Saxapahaw	35.9461	-79.3221
B2000000	UCFRBA	Active	C NSW	Haw Riv At Sr 1005 Nr Saxapahaw	35.89528	-79.25849
B2100000	NCAMBNT	Active	WS-IV NSW	Haw Riv At Sr 1713 Nr Bynum	35.77165	-79.14497
B2100000	UCFRBA	Active	WS-IV NSW	Haw Riv At Sr 1713 Nr Bynum	35.77165	-79.14497
B2210000	UCFRBA	4/20/2005	WS-IV NSW	Haw Riv At Us 64 Nr Pittsboro	35.73087	-79.10703
B2450000	NCAMBNT	Active	WS-IV B NSW CA	Robeson Crk At Boat Access Off Sr 1943 Nr Hanks Chapel	35.70315	-79.10027
B2450000	UCFRBA	Active	WS-IV B NSW CA	Robeson Crk At Boat Access Off Sr 1943 Nr Hanks Chapel	35.70315	-79.10027
B3020000	UCFRBA	Active	WS-IV NSW	New Hope Crk At Nc 54 Nr Durham	35.91672	-78.97043
B3025000	UCFRBA	Active	WS-IV NSW	Third Fork Crk At Nc 54 Nr Durham	35.91867	-78.9548
B3040000	NCAMBNT	Active	WS-IV NSW	New Hope Crk At Sr 1107 Nr Blands	35.88474	-78.96563
B3040000	UCFRBA	Active	WS-IV NSW	New Hope Crk At Sr 1107 Nr Blands	35.88474	-78.96563
B3300000	UCFRBA	Active	WS-IV NSW	Northeast Crk At Sr 1102 Sedwick Rd Nr Rtp	35.88702	-78.89943
B3660000	NCAMBNT	Active	WS-IV NSW	Northeast Crk At Sr 1100 Nr Nelson	35.87243	-78.91322
B3670000	UCFRBA	Active	WS-IV NSW	Northeast Crk At Sr 1731 O Kelly Church Rd Nr Durham	35.8555	-78.93968
B3899180	UCFRBA	Active	WS-IV NSW	Morgan Crk At Mason Farm Wwtp Entrance At Chapel Hill	35.8987	-79.0263
B3900000	NCAMBNT	Active	WS-IV NSW	Morgan Crk At Sr 1726 Nr Farrington	35.86115	-79.01
B3900000	UCFRBA	Active	WS-IV NSW	Morgan Crk At Sr 1726 Nr Farrington	35.86115	-79.01
B4050000	NCAMBNT	Active	WS-IV	Haw Riv Below Jordan Dam Nr Moncure	35.65342	-79.06728
B4080000	UCFRBA	Active	WS-IV	Haw Riv At Sr 1011 Old Us 1 Nr Haywood	35.61642	-79.05688
<b>HUC 03030003: Deep River</b>						
B4210000	NCAMBNT	Active	WS-IV CA*	W Fork Deep Riv At Sr 1818 Nr High Point	36.04658	-80.01407
B4240000	NCAMBNT	Active	WS-IV*	E Fork Deep Riv At Sr 1541 Nr High Point	36.03727	-79.94576
B4350000	UCFRBA	Active	WS-IV CA*	Deep Riv At Sr 1113 Kivett Dr Nr Hayworth Spring	35.95942	-79.90605
B4380000	UCFRBA	Active	WS-IV CA*	Richland Crk At Sr 1154 Kersey Valley Rd Nr High Point	35.941	-79.9322
B4410000	UCFRBA	5/27/2008	WS-IV CA*	Richland Crk At Sr 1145 Nr High Point	35.941	-79.902
B4440000	NCAMBNT	12/14/2006	WS-IV CA*	Deep Riv At Sr 1129 Nr High Point	35.93774	-79.89008
B4440000	UCFRBA	4/19/2005	WS-IV CA*	Deep Riv At Sr 1129 Nr High Point	35.93774	-79.89008
B4614500	UCFRBA	Active	WS-IV CA*	Randleman Lake At Sr 1921 Nr Randleman	35.90618	-79.85648
B4615000	NCAMBNT	12/14/2006	WS-IV CA*	Deep Riv At Sr 1921 Nr Randleman	35.90431	-79.85419
B4625000	UCFRBA	Active	WS-IV*	Muddy Crk At Sr 1922 Nr Glenola	35.88364	-79.89502
B4626000	UCFRBA	9/19/2005	WS-IV*	Muddy Crk At Sr 1929 Cedar Square Rd Nr Glenola	35.8749	-79.8769
B4770500	UCFRBA	Active	C	Deep Riv At Us 220 Bus Main St At Randleman	35.8233	-79.8033
B4800000	NCAMBNT	3/21/2005	C	Deep Riv At Sr 2122 At Worthville	35.8007	-79.77623
B4800000	UCFRBA	Active	C	Deep Riv At Sr 2122 At Worthville	35.8007	-79.77623

**Table 4. Monitoring stations in the Cape Fear River Basin, 2004 – 2008 (cont.)**

Station	Agency	Active / Date Inactive	Stream Class	Location	Latitude	Longitude
<b>HUC 03030003: Deep River</b>						
B4850000	UCFRBA	9/18/2006	C	Haskett Crk At Us 220 Bus Nr North Asheboro	35.76462	-79.80683
B4870000	UCFRBA	Active	C	Haskett Crk At Asheboro Wwtp Bridge Nr Asheboro	35.7649	-79.7864
B4890000	NCAMBNT	Active	C	Haskett Crk At Sr 2128 Nr Central Falls	35.76792	-79.77898
B4920000	UCFRBA	Active	C	Deep Riv At Sr 2261 Old Liberty Rd Nr Central Falls	35.7635	-79.77213
B5070000	NCAMBNT	3/21/2005	C	Deep Riv At Sr 2615 At Ramseur	35.73022	-79.65579
B5070000	UCFRBA	Active	C	Deep Riv At Sr 2615 At Ramseur	35.73022	-79.65579
B5100000	UCFRBA	Active	C	Deep Riv At Sr 2628 Hinshaw Town Rd Nr Parks Crossroads	35.67248	-79.62735
B5131000	NCAMBNT	11/6/2006	C	Deep Riv At Nc 42 Nr Coleridge	35.64056	-79.6194
B5190000	NCAMBNT	Active	C	Deep Riv At Sr 1456 Nr High Falls	35.50049	-79.58135
B5390800	UCFRBA	Active	WS-III	Cotton Crk At Sr 1372 Auman Rd Nr Star	35.3782	-79.7551
B5480000	NCAMBNT	Active	C	Bear Crk At Nc 705 At Robbins	35.44073	-79.58857
B5520000	UCFRBA	Active	C HQW	Deep Riv At Nc 22 At High Falls	35.47771	-79.51951
B5575000	NCAMBNT	Active	WS-IV HQW	Deep Riv At Nc 42 At Carbonton	35.52004	-79.34854
B5575000	UCFRBA	4/22/2005	WS-IV HQW	Deep Riv At Nc 42 At Carbonton	35.52004	-79.34854
B5685000	UCFRBA	Active	C	Deep Riv At Deep River Park Bridge Nr Cumnock	35.57046	-79.24116
B5820000	NCAMBNT	3/15/2005	C	Deep Riv At Us 15 And 501 Nr Sanford	35.57817	-79.19421
B5820000	UCFRBA	Active	C	Deep Riv At Us 15 And 501 Nr Sanford	35.57817	-79.19421
B5950000	UCFRBA	Active	WS-III CA	Rocky Riv At Us 64 Nr Siler City	35.73513	-79.42325
B5980000	UCFRBA	Active	WS-III CA	Rocky Riv At Sr 2170 Rives Chapel Rd Nr Siler City	35.69848	-79.37559
B6000000	NCAMBNT	Active	WS-III CA	Rocky Riv At Nc 902 Nr Pittsboro	35.67865	-79.28983
B6040300	NCAMBNT	Active	WS-IV	Deep Riv At Sr 1011 Old Us 1 Nr Moncure	35.61759	-79.09119
B6040300	UCFRBA	Active	WS-IV	Deep Riv At Sr 1011 Old Us 1 Nr Moncure	35.61759	-79.09119
<b>HUC 03030004: Little River - Cape Fear River</b>						
B6130500	MCFRBA	Active	WS-IV	Lick Crk At Sr 1500 Nr Corinth	35.55947	-79.05437
B6160000	MCFRBA	Active	WS-IV CA	Cape Fear Riv At Nc 42 Nr Corinth	35.54905	-79.0246
B6160000	NCAMBNT	12/18/2006	WS-IV CA	Cape Fear Riv At Nc 42 Nr Corinth	35.54905	-79.0246
B6200000	MCFRBA	8/23/2005	C	Buckhorn Crk At Nc 42 Nr Fuquay Varina	35.55941	-78.97342
B6204000	MCFRBA	Active	C	Buckhorn Crk Beside Sr 1921 Nr Corinth	35.54353	-78.98986
B6230000	MCFRBA	Active	WS-IV HQW	Avents Crk At Sr 1418 Nr Cokesbury	35.48772	-78.90987
B6252000	MCFRBA	Active	WS-IV	Neills Crk At Us 401 Nr Lillington	35.4281	-78.824
B6320000	MCFRBA	Active	WS-IV	Kenneth Crk At Sr 1441 Chalybeate Springs Rd Nr Angier	35.51435	-78.78622
B6370000	MCFRBA	Active	WS-IV	Cape Fear Riv At Us 401 At Lillington	35.40653	-78.8135
B6370000	NCAMBNT	Active	WS-IV	Cape Fear Riv At Us 401 At Lillington	35.40653	-78.8135
B6485000	MCFRBA	Active	WS-IV	Buies Crk At Keith Hills Golf Course Maint Shop At Buies Creek	35.3907	-78.7527
B6820050	MCFRBA	Active	C	Upper Little Riv At Sr 1222 Nr Broadway	35.40674	-79.0628
B6830000	MCFRBA	Active	WS-IV	Upper Little Riv At Sr 2021 Nr Lillington	35.32656	-78.72378
B6830000	NCAMBNT	Active	WS-IV	Upper Little Riv At Sr 2021 Nr Lillington	35.32656	-78.72378
B6840000	MCFRBA	Active	WS-V	Cape Fear Riv At Nc 217 At Erwin	35.31224	-78.6925
B6840000	NCAMBNT	Active	WS-V	Cape Fear Riv At Nc 217 At Erwin	35.31224	-78.6925
B7245000	NCAMBNT	Active	WS-III HQW	Lower Little Riv At Sr 2023 Nr Lobelia	35.20371	-79.21592
B7280000	MCFRBA	6/6/2008	C	Lower Little Riv At Sr 1451 At Manchester	35.19323	-78.98561
B7280000	NCAMBNT	Active	C	Lower Little Riv At Sr 1451 At Manchester	35.19323	-78.98561
B7300000	MCFRBA	Active	C	Lower Little Riv At Nc 210 Nr Spring Lake	35.20205	-78.953
B7319100	MCFRBA	Active	C	Lower Little Riv At Sr 1609 Nr Walkertown	35.25982	-78.82307
B7480000	MCFRBA	Active	WS-IV CA	Cape Fear Riv At Hoffer Wtp Intake At Fayetteville	35.08143	-78.86355
B7500000	MCFRBA	Active	C	Cape Fear Riv At I 95 Below Fayetteville	34.982	-78.84782
B7546500	MCFRBA	3/31/2005	C	Cross Crk Off Bragg Blvd At Fayetteville	35.05863	-78.88527
B7547000	MCFRBA	Active	C	Cross Crk At Cross Creek Park At Fayetteville	35.05386	-78.87691
B7584000	MCFRBA	Active	C	Blounts Crk At Us 301A Person St At Fayetteville	35.04976	-78.87033
B7584005	MCFRBA	3/31/2005	C	Blounts Crk Off Adams St At Fayetteville	35.05036	-78.86979
B7584800	MCFRBA	Active	C	Ut To Cross Crk Off Anne St At Fayetteville	35.06282	-78.87182
B7584900	MCFRBA	Active	C	Ut To Cross Crk At Cross Creek Wrf At Fayetteville	35.05991	-78.86468
B7590000	MCFRBA	Active	C	Cross Crk At Us 301 Bus And I 95 Bus At Fayetteville	35.05467	-78.86223
B7600000	NCAMBNT	Active	C	Cape Fear Riv At Nc 24 At Fayetteville	35.0499	-78.85745
B7679300	MCFRBA	Active	B	Rockfish Crk At Us 401 Bypass Nr Raeford	34.99932	-79.21514
B7700000	MCFRBA	Active	B	Rockfish Crk At Sr 1432 Nr Raeford	34.96826	-79.10959
B7700000	NCAMBNT	Active	B	Rockfish Crk At Sr 1432 Nr Raeford	34.96826	-79.10959
B8224000	NCAMBNT	Active	C	Rockfish Crk At Sr 2350 Nr Cedar Creek	34.96101	-78.89911
B8230000	MCFRBA	Active	C	Rockfish Crk At Nc 87 Nr Fayetteville	34.95608	-78.84405

**Table 4. Monitoring stations in the Cape Fear River Basin, 2004 – 2008 (cont.)**

Station	Agency	Active / Date Inactive	Stream Class	Location	Latitude	Longitude
<b>HUC 03030005: Cape Fear River</b>						
B8290000	MCFRBA	Active	C	Cape Fear Riv At Dupont Water Intake Ups Lock And Dam 3	34.84945	-78.82629
B8300000	NCAMBNT	Active	C	Cape Fear Riv At Wo Huske Lock Nr Tar Heel	34.83487	-78.82263
B8302000	MCFRBA	Active	C	Cape Fear Riv At Power Lines Nr Tolarsville	34.78434	-78.79825
B8305000	MCFRBA	Active	C	Cape Fear Riv At Sr 1316 At Tar Heel	34.74477	-78.78563
B8305000	NCAMBNT	Active	C	Cape Fear Riv At Sr 1316 At Tar Heel	34.74477	-78.78563
B8306000	MCFRBA	Active	C	Cape Fear Riv At Rm 80 Nr Ruskin	34.68308	-78.68465
B8315000	MCFRBA	Active	C	Harrison Crk At Sr 1320 At Burney	34.73155	-78.71616
B8320000	MCFRBA	Active	C	Cape Fear River At Us 701 At Elizabethtown	34.63239	-78.60286
B8321000	NCAMBNT	Active	C	Turnbull Crk At Sr 1509 Nr Johnstontown	34.70839	-78.60078
B8339000	MCFRBA	Active	C	Cape Fear Riv Above Lock And Dam 2	34.62762	-78.57965
B8340000	NCAMBNT	Active	C	Cape Fear Riv At Lock 2 Nr Elizabethtown	34.62636	-78.57678
B8340050	LCFRP	Active	C	Browns Crk At Nc 87 Nr Elizabethtown	34.61403	-78.58475
B8340100	MCFRBA	Active	C	Turnbull Crk At Us 701 Nc 53 And Nc 41 Nr Elizabethtown	34.6472	-78.5565
B8340130	MCFRBA	Active	C	Cape Fear Riv At Rm 70 Nr Elizabethtown	34.62458	-78.55048
B8340200	LCFRP	Active	C	Hammond Crk At Sr 1704 Nr Mount Olive	34.56896	-78.55225
B8340650	MCFRBA	Active	WS-V	Cape Fear Riv At Rm 55 Nr Bladen Springs	34.53518	-78.43975
B8348000	MCFRBA	Active	WS-IV	Cape Fear Riv At Sr 1730 Elwell Ferry Rd Nr Carvers	34.474	-78.369
B8349000	MCFRBA	Active	WS-IV CA	Cape Fear Riv Above Lock And Dam 1 Nr East Arcadia	34.40693	-78.29508
B8350000	NCAMBNT	Active	WS-IV Sw	Cape Fear Riv At Lock 1 Nr Kelly	34.40376	-78.29316
B8360000	LCFRP	Active	WS-IV Sw	Cape Fear Riv At Nc 11 Nr East Arcadia	34.39687	-78.26752
B8360000	NCAMBNT	12/18/2006	WS-IV Sw	Cape Fear Riv At Nc 11 Nr East Arcadia	34.39687	-78.26752
B8441000	LCFRP	Active	C Sw	Livingston Crk At Wright Corporation Walkway Nr Acme	34.33527	-78.20111
B8441000	NCAMBNT	Active	C Sw	Livingston Crk At Wright Corporation Walkway Nr Acme	34.33527	-78.20111
B8445000	LCFRP	11/2/2005	C Sw	Livingston Crk At Mouth Nr Riegelwood	34.35161	-78.20107
B8450000	LCFRP	Active	C Sw	Cape Fear Riv At Neils Eddy Landing Nr Acme	34.35547	-78.17942
B8450000	NCAMBNT	Active	C Sw	Cape Fear Riv At Neils Eddy Landing Nr Acme	34.35547	-78.17942
B8465000	LCFRP	Active	C Sw	Cape Fear Riv At Intake Nr Hooper Hill	34.33581	-78.05436
B9020000	NCAMBNT	Active	C Sw	Cape Fear Riv Dns Hale Pt Landing Nr Phoenix	34.31808	-78.02639
B9030000	LCFRP	Active	C Sw	Cape Fear Riv Ups Indian Creek Nr Phoenix	34.30278	-78.01406
B9050000	NCAMBNT	Active	SC	Cape Fear Riv At Navassa	34.26118	-77.98907
B9050025	LCFRP	Active	SC	Cape Fear Riv Dns Rr Bridge At Navassa	34.25943	-77.98767
B9050100	LCFRP	Active	SC	Cape Fear Riv At Horseshoe Bend Nr Wilmington	34.24372	-77.9698
B9790000	LCFRP	Active	SC	Brunswick Riv Dns Nc 17 At Park Nr Belville	34.22045	-77.97966
B9795000	LCFRP	Active	SC	Cape Fear Riv At Cm 54	34.13933	-77.94595
B9800000	LCFRP	Active	SC	Cape Fear Riv At Cm 61 At Wilmington	34.19431	-77.95679
B9800000	NCAMBNT	Active	SC	Cape Fear Riv At Cm 61 At Wilmington	34.19431	-77.95679
B9820000	NCAMBNT	Active	SC	Cape Fear Riv At Cm 56 Nr Wilmington	34.14745	-77.95263
B9845100	LCFRP	Active	SC	Cape Fear Riv At Cm 42	34.09017	-77.93355
B9850100	LCFRP	Active	SC	Cape Fear Riv At Cm 35	34.03348	-77.93702
B9910000	LCFRP	Active	SA HQW	Cape Fear Riv At Cm 23	33.9456	-77.96958
B9921000	LCFRP	Active	SC	Cape Fear Riv At Cm 18	33.91131	-78.01658
B9980000	LCFRP	Active	SA HQW	lcw Nr Southport	33.91732	-78.03794
<b>HUC 03030006: Black River</b>						
B8470000	LCFRP	Active	C Sw	South Riv At Us 13 Nr Cooper	35.156	-78.64013
B8490000	NCAMBNT	Active	C Sw	Little Coharie Crk At Sr 1414 Minnie Hall Rd Nr Salemburg	35.05553	-78.53095
B8545000	NCAMBNT	Active	C Sw	Little Coharie Crk At Sr 1240 Nr Roseboro	34.92735	-78.46568
B8580000	NCAMBNT	Active	C Sw	Great Coharie Crk At Sr 1311 Nr Clinton	35.02483	-78.3717
B8604000	LCFRP	Active	C Sw	Great Coharie Crk At Sr 1214 Nr Butler Crossroads	34.91824	-78.38918
B8610001	LCFRP	Active	C Sw	Little Coharie Crk At Sr 1207 Nr Ingold	34.83473	-78.37087
B8679500	NCAMBNT	1/18/2006	C Sw	Six Runs Crk At Sr 1919 Nr Moltonville	35.01492	-78.2295
B8725000	NCAMBNT	Active	C Sw ORW +	Six Runs Crk At Sr 1960 Nr Taylors Bridge	34.852	-78.2448
B8740000	LCFRP	Active	C Sw ORW+	Six Runs Crk At Sr 1003 Nr Ingold	34.79327	-78.31125
B8750000	NCAMBNT	Active	C Sw ORW +	Black Riv At Nc 411 Nr Tomahawk	34.7544	-78.2891
B8919000	NCAMBNT	Active	C Sw ORW +	South Riv At Sr 1503 Nr Parkersburg	34.81218	-78.45684
B8981000	LCFRP	Active	C Sw	Colly Crk At Nc 53 At Colly	34.46411	-78.25692
B9000000	LCFRP	Active	C Sw ORW+	Black Riv At Nc 210 At Still Bluff	34.43124	-78.14411
B9013000	NCAMBNT	Active	C Sw ORW +	Black Riv At Raccoon Island Nr Huggins	34.37201	-78.07212



**Table 4. Monitoring stations in the Cape Fear River Basin, 2004 – 2008 (cont.)**

Station	Agency	Active / Date Inactive	Stream Class	Location	Latitude	Longitude
<b>HUC 03030007: Northeast Cape Fear River</b>						
B9080000	NCAMBNT	Active	C Sw	Northeast Cape Fear Riv At Sr 1937 Nr Mt Olive	35.1914	-78.01759
B9090000	LCFRP	Active	C Sw	Northeast Cape Fear Riv At Nc 403 Nr Williams	35.17839	-77.98072
B9090000	NCAMBNT	Active	C Sw	Northeast Cape Fear Riv At Nc 403 Nr Williams	35.17839	-77.98072
B9130000	LCFRP	Active	C Sw	Panther Crk Nr Faison	35.13445	-78.1363
B9190500	NCAMBNT	Active	C Sw	Goshen Swamp At Sr 1004 Nr Westbrook Crossroad	35.0535	-77.9474
B9191000	LCFRP	Active	C Sw	Goshen Swamp At Nc 11 And Nc 903 Nr Kornegay	35.02808	-77.8516
B9191500	LCFRP	Active	C Sw	Northeast Cape Fear Riv At Sr 1700 Nr Sarecta	34.98008	-77.86221
B9196000	NCAMBNT	Active	C Sw	Northeast Cape Fear Riv At Sr 1961 At Hallsville	34.90589	-77.84088
B9430000	LCFRP	Active	C Sw	Rockfish Crk At Us 117 Nr Wallace	34.71684	-77.97949
B9460000	LCFRP	Active	C Sw	Little Rockfish Crk At Nc 11 Nr Wallace	34.72244	-77.98141
B9470000	NCAMBNT	Active	C Sw	Rockfish Crk At I 40 At Wallace	34.71913	-77.94622
B9480000	NCAMBNT	Active	C Sw	Northeast Cape Fear Riv At Sr 1318 Nr Watha	34.64594	-77.87246
B9490000	LCFRP	Active	C Sw	Angola Crk At Nc 53 Nr Maple Hill	34.65617	-77.73508
B9490000	NCAMBNT	12/11/2006	C Sw	Angola Crk At Nc 53 Nr Maple Hill	34.65617	-77.73508
B9500000	LCFRP	Active	C Sw	Burgaw Crk At Sr 1345 Wright St At Burgaw	34.56334	-77.93481
B9520000	LCFRP	Active	C Sw	Burgaw Crk At Us 117 At Burgaw	34.56375	-77.92202
B9520000	NCAMBNT	Active	C Sw	Burgaw Creek At Us 117 At Burgaw	34.56375	-77.92202
B9550000	NCAMBNT	Active	C Sw	Lillington Crk At Sr 1520 Nr Stag Park	34.50844	-77.81537
B9580000	LCFRP	Active	B Sw	Northeast Cape Fear Riv At Us 117 At Castle Hayne	34.36366	-77.89645
B9580000	NCAMBNT	Active	B Sw	Northeast Cape Fear Riv At Us 117 At Castle Hayne	34.36366	-77.89645
B9670000	LCFRP	Active	C Sw	Northeast Cape Fear Riv Nr Wrightsboro	34.31526	-77.95307
B9720000	LCFRP	Active	C Sw	Smith Crk At Us 117 And Nc 133 At Wilmington	34.25861	-77.93913
B9740000	NCAMBNT	Active	SC Sw	Northeast Cape Fear Riv At Nc 133 At Wilmington	34.25183	-77.95104

**Notes**

NCAMBNT: North Carolina Ambient Monitoring System  
 UCFRBA: Upper Cape Fear River Basin Association  
 MCFRBA: Middle Cape Fear River Basin Association  
 LCFRP: Lower Cape Fear River Program

**Primary Water Use Classifications**

C: Aquatic Life  
 B: Primary Recreation  
 WS-I, WS-II, WS-III, WS-IV, WS-V: Water Supply  
 SA: Saltwater Shellfish Harvesting  
 SB: Saltwater Primary Recreation  
 SC: Saltwater Aquatic Life

**Secondary Water Use Classifications**

Sw: Swamp Water  
 HQW: High Quality Water  
 ORW: Outstanding Resource Water  
 Tr: Trout Waters  
 CA: Critical Area

## PARAMETERS

### Dissolved Oxygen

Dissolved oxygen is one of the most important of all the chemical measurements. Dissolved oxygen provides valuable information about the ability of the water to support aquatic life and the capacity of water to assimilate point and nonpoint discharges. Water quality standards for dissolved oxygen vary depending on the classification of the body of water. For freshwaters, 15A NCAC 02B .0211 (3)(b) specifies:

*Dissolved oxygen: not less than 6.0 mg/l for trout waters; for non-trout waters, not less than a daily average of 5.0 mg/l with a minimum instantaneous value of not less than 4.0 mg/l; swamp waters, lake coves or backwaters, and lake bottom waters may have lower values if caused by natural conditions.*

For saltwaters, 15A NCAC 02B .0220 (3)(b) applies instead:

*Dissolved oxygen: not less than 5.0 mg/l, except that swamp waters, poorly flushed tidally influenced streams or embayments, or estuarine bottom waters may have lower values if caused by natural conditions.*

### pH

The pH of natural waters can vary throughout the state. Low values, such as less than 7.0 Standard Units (SU), can be found in waters rich in dissolved organic matter, such as swamp lands. High values, such as greater than 7.0 SU may

be found during algal blooms. Point source dischargers can also influence the pH of a stream. The measurement of pH is relatively easy; however the accuracy of field measurements is limited by the abilities of the field equipment, which is generally accurate to within 0.2 SU. This is due, in part, because the scale for measuring pH is logarithmic (i.e. a pH of 8 is ten times less concentrated in hydrogen ions than a pH of 7). The water quality standards for pH in freshwaters consider values less than 6.0 SU or greater than 9.0 SU to warrant attention. In swamp waters, a pH below 4.3 SU is of concern. For saltwaters, the acceptable range is more strict: 6.8 SU to 8.5 SU.

## **Specific Conductance**

In this report, conductivity is synonymous with specific conductance. It is reported in micro-mhos per centimeter ( $\mu\text{mhos/cm}$ ) at 25°C. Conductivity is a measure of the ability of water to conduct an electric current. The presence of ions and temperature are major factors in the ability of water to conduct a current. Clean freshwater has a low conductivity, whereas high conductivities may indicate polluted water or saline conditions. Measurements reported are corrected for temperature, thus the range of values reported over a period of time indicate the relative presence of ions in water. North Carolina freshwater streams have a natural conductance range of 17-65  $\mu\text{mhos/cm}$  (USGS 1992).

Conductivity can be used to evaluate variations in dissolved mineral concentrations (ions) among sites with varying degrees of impact resulting from point source discharges. Generally, impacted sites show elevated and widely ranging values for conductivity. Water bodies that contain saltwater will also have high conductivities. Therefore salinity must be accounted for prior to using conductivity as an indicator for problems.

## **Turbidity**

Turbidity data may denote episodic high values on particular dates or within narrow time periods. These can often be the result of intense or sustained rainfall events; however elevated values can occur at other times. In coastal areas, tidal surges can also disturb shallow estuarine sediments and naturally increase turbidity.

## **Nutrients**

Compounds of nitrogen and phosphorus are major components of living organisms and thus are essential to maintain life. These compounds are collectively referred to as "nutrients." Nitrogen compounds include ammonia-nitrogen ( $\text{NH}_3\text{-N}$ ), total Kjeldahl nitrogen (TKN) and nitrite+nitrate nitrogen ( $\text{NO}_2+\text{NO}_3\text{-N}$ ). Phosphorus is measured as total phosphorus. When nutrients are introduced to an aquatic ecosystem from municipal and industrial treatment processes, or runoff from urban or agricultural land, the excessive growth of algae (algal blooms) and other plants may be accelerated.

At neutral pH in water, ammonia normally forms an ionized solution of ammonium hydroxide, with a small amount of deionized ammonia. However, as pH increases, more ammonia is left deionized. Deionized ammonia is toxic to fish and other aquatic organisms.

## **Fecal Coliform Bacteria**

Concentrations of fecal coliform bacteria can vary greatly. The descriptive statistics used to evaluate fecal coliform bacteria data include the geometric mean and the median depending on the classification of the waterbody. For all freshwater sites in the Cape Fear River Basin, the standard specified in Administrative Code 15A NCAC 02B.0211 (3)(e) (May 1, 2007) is applicable:

*"Organisms of the coliform group: fecal coliforms shall not exceed a geometric mean of 200/100ml (MF count) based upon at least five consecutive samples examined during any 30 day period, nor exceed 400/100ml in more than 20 percent of the samples examined during such period. Violations of the fecal coliform standard are expected during rainfall events and, in some cases, this violation is expected to be caused by uncontrollable nonpoint source pollution. All coliform concentrations are to be analyzed using the membrane filter technique unless high turbidity or other*

*adverse conditions necessitate the tube dilution method; in case of controversy over results, the MPN 5-tube dilution technique shall be used as the reference method.”*

For waters where commercial shellfishing is done (Class SA), an additional water quality standard is applied (15A NCAC 02B .0221 (3)(d) (May 1, 2007):

*Organisms of coliform group: fecal coliform group not to exceed a median MF of 14/100 ml and not more than 10 percent of the samples shall exceed an MF count of 43/100 ml in those areas most probably exposed to fecal contamination during the most unfavorable hydrographic and pollution conditions.*

Class SA, non-SA tidal saltwaters, and fresh waters are present in the Cape Fear River basin. All sites where the geometric mean was greater than 200 colonies/100ml, or where greater than 20 percent of the results exceed 400 colonies/100ml (i.e. all sites that exceed the evaluation level) are indicated on the respective station summary sheets. In addition, class SA sites where the median exceeds 14 colonies/100ml or where greater than 10 percent of the results exceed 43 colonies/100ml are indicated on the sheets.

Fecal coliform problems are screened using annual summaries of Ambient sampling results. If the screening indicates that the station may be in violation of the standard, the standard is assessed using the method required by law. All such class B, class SB, and class SA waters are assessed, and other waters as resources permit. The required assessment method is known as “5 in 30”, collecting a minimum five samples within a span of 30 days. If a water body exceeds the standard more than 20% of the time during the 30-day period or the geomean for the 30-day period is greater than 200, then that water body is considered impaired and is added to the impaired water list, the 303(d) list.

In addition, for all tidal salt waters, the following is applicable 15A NCAC 02B .0220 (3)(e) (May 1, 2007):

*Enterococcus, including Enterococcus faecalis, Enterococcus faecium, Enterococcus avium, and Enterococcus gallinarum: not to exceed a geometric mean of 35 enterococci per 100 ml based upon a minimum of five samples within any consecutive 30 days.*

DWQ and the discharger coalitions do not collect Enterococcus samples. The N.C. Recreational Water Quality Program (NCRWQP) collects enterococcus samples. Their mission is to protect the public health by monitoring the quality of N.C.'s coastal recreational waters and notifying the public when bacteriological standards for safe bodily contact are exceeded. The coastal waters monitored include the ocean beaches, sounds, bays and estuarine rivers.

Enterococcus bacteria is an indicator organism found in the intestines of warm-blooded animals. While it may not cause illness itself, its presence is correlated with that of organisms that can cause illness. The program tests 239 ocean and sound-side areas. Swimming season begins on April 1<sup>st</sup> and ends Sept. 30<sup>th</sup>. All ocean beaches and high-use sound-side beaches (Tier 1) are tested weekly. Lower-use beaches (Tier 2 and Tier 3) are tested twice a month. All sites are tested twice a month in October and monthly from November through March. The NCRWQP currently uses single sample test to determine compliance with their rules (15A NCAC 18A .3402):

*(a) The Enterococcus level in a Tier I swimming area shall not exceed either:*

- (1) A geometric mean of 35 enterococci per 100 milliliter of water, that includes a minimum of at least five samples collected within 30 days; or*
- (2) A single sample of 104 enterococci per 100 milliliter of water.*

*(b) The enterococcus level in a tier II swimming area shall not exceed a single sample of 276 enterococci per 100 milliliter of water.*

*(c) The enterococcus level in a tier III swimming area shall not exceed two consecutive samples of 500 enterococci per 100 milliliter of water”*

The results of their sampling can be found on their website:

[http://www.deh.enr.state.nc.us/shellfish/Water\\_Monitoring/RWQweb/home.htm](http://www.deh.enr.state.nc.us/shellfish/Water_Monitoring/RWQweb/home.htm)

## WATER QUALITY MONITORING RESULTS SUMMARY

Water Quality within the basin during the evaluation period is summarized in the following tables. **Table 5** shows how often water quality evaluation levels were exceeded. **Table 6** shows average values, for comparison against Hydrologic Unit (HU) and basinwide averages. By comparing individual stations against averages for the HU and for the entire basin, it is possible to pick out stations that are significantly higher or lower. Comparing HUs to each other and to the Basinwide average allows for broader comparison.

**Table 5a. Frequency of Evaluation Level Exceedances**

Station	Agency	Stream Class	Water Temperature (>32 degrees C)	D.O. (<4 mg/L)	pH (<6 SU)	pH (>9 SU)	Turbidity (>25 NTU)	Turbidity (>50 NTU)	Chlorophyll a (>40 ug/L)	Nitrate & Nitrite (>10 mg/L)	Fecal coliform (>400 colis/100mL)
<b>HUC 03030002: Haw River</b>											
B0040000	NCAMBNT	C NSW	0.0%	0.0%	1.7%	0.0%	NS	1.7%	NC	NS	8.6%
B0050000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	0.0%	NS	0.0%	NC	NS	0.0%
B0050000	UCFRBA	C NSW	0.0%	2.4%	1.2%	0.0%	NS	1.7%	NC	NS	13.3%
B0070010	UCFRBA	C NSW	1.7%	11.7%	0.0%	0.0%	NS	0.0%	NC	NS	13.3%
B0160000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	0.0%	NS	1.7%	NC	NS	16.9%
B0170000	UCFRBA	C NSW	0.0%	0.0%	0.0%	0.0%	NS	6.6%	NC	NS	21.3%
B0190000	NCAMBNT	C NSW	L10	L10	L10	L10	NS	L10	NC	NS	L10
B0210000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	0.0%	NS	3.9%	NC	NS	6.0%
B0400000	UCFRBA	C NSW	0.0%	0.0%	0.0%	0.0%	NS	0.0%	NC	NS	10.0%
B0480050	UCFRBA	C NSW	0.0%	0.0%	0.0%	0.0%	NS	1.6%	NC	NS	31.1%
B0540000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	0.0%	NS	0.0%	NC	NS	19.0%
B0540050	UCFRBA	C NSW	0.0%	0.0%	0.0%	0.0%	NS	1.6%	NC	NS	26.2%
B0670000	UCFRBA	C NSW	0.0%	0.0%	0.0%	0.0%	NS	4.9%	NC	NS	24.6%
B0750000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	0.0%	NS	3.4%	NC	NS	24.6%
B0750000	UCFRBA	C NSW	0.0%	1.2%	0.0%	0.0%	NS	0.0%	NC	NS	27.9%
B0840000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	0.0%	NS	3.4%	NC	NS	14.5%
B0850000	UCFRBA	C NSW	0.0%	0.0%	0.0%	0.0%	NS	0.0%	NC	NS	11.7%
B1095000	NCAMBNT	WS-II HQW NSW	0.0%	1.8%	0.0%	0.0%	NS	3.6%	NC	NS	16.7%
B1140000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	1.7%	NS	1.7%	NC	NS	25.0%
B1200000	UCFRBA	C NSW	0.0%	0.0%	0.0%	1.2%	NS	0.0%	NC	NS	18.3%
B1260000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	0.0%	NS	1.7%	NC	NS	28.6%
B1350000	UCFRBA	C NSW	0.0%	0.0%	2.4%	0.0%	NS	3.3%	NC	NS	21.7%
B1380000	UCFRBA	C NSW	0.0%	0.0%	0.0%	0.0%	NS	3.3%	NC	NS	13.3%
B1440000	UCFRBA	C NSW	0.0%	0.0%	0.0%	2.4%	NS	1.7%	NC	NS	16.7%
B1940000	UCFRBA	C NSW	0.0%	0.0%	0.0%	0.0%	NS	3.3%	NC	NS	21.7%
B1960000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	0.0%	NS	3.4%	NC	NS	16.1%
B1960000	UCFRBA	C NSW	0.0%	1.2%	0.0%	0.0%	NS	3.3%	NC	NS	18.3%
B1980000	NCAMBNT	C NSW	0.0%	0.0%	0.0%	0.0%	NS	3.4%	NC	NS	14.3%
B2000000	UCFRBA	C NSW	0.0%	1.7%	0.0%	0.0%	NS	3.3%	NC	NS	15.0%
B2100000	NCAMBNT	WS-IV NSW	0.0%	0.0%	0.0%	2.7%	NS	11.7%	L10	0.0%	16.7%
B2100000	UCFRBA	WS-IV NSW	0.0%	0.0%	0.0%	2.3%	NS	4.5%	NC	0.0%	11.4%
B2210000	UCFRBA	WS-IV NSW	0.0%	0.0%	0.0%	6.3%	NS	0.0%	NC	0.0%	12.5%
B2450000	NCAMBNT	WS-IV B NSW CA	0.0%	2.0%	0.0%	11.1%	7.4%	NS	38.8%	0.0%	7.4%
B2450000	UCFRBA	WS-IV B NSW CA	4.7%	0.0%	0.0%	21.2%	16.7%	NS	NC	0.0%	10.0%
B3020000	UCFRBA	WS-IV NSW	0.0%	29.4%	1.2%	0.0%	NS	10.0%	NC	0.0%	28.3%
B3025000	UCFRBA	WS-IV NSW	0.0%	23.3%	0.0%	0.0%	NS	8.3%	NC	0.0%	25.0%

**Table 5a. Frequency of Evaluation Level Exceedances (cont.)**

Station	Agency	Stream Class	Water Temperature (>32 degrees C)	D.O. (<4 mg/L)	pH (<6 SU)	pH (>9 SU)	Turbidity (>25 NTU)	Turbidity (>50 NTU)	Chlorophyll a (>40 ug/L)	Nitrate & Nitrite (>10 mg/L)	Fecal coliform (>400 cois/100mL)
<b>HUC 03030002: Haw River</b>											
B3040000	NCAMBNT	WS-IV NSW	0.0%	1.1%	0.0%	0.0%	NS	7.5%	NC	1.0%	13.2%
B3040000	UCFRBA	WS-IV NSW	0.0%	1.2%	0.0%	0.0%	NS	<b>11.7%</b>	NC	1.7%	<b>25.0%</b>
B3300000	UCFRBA	WS-IV NSW	0.0%	<b>27.1%</b>	1.2%	0.0%	NS	<b>11.7%</b>	NC	0.0%	<b>26.7%</b>
B3660000	NCAMBNT	WS-IV NSW	0.0%	0.9%	0.0%	0.0%	NS	10.0%	NC	8.8%	13.3%
B3670000	UCFRBA	WS-IV NSW	0.0%	0.0%	0.0%	0.0%	NS	<b>38.3%</b>	NC	1.7%	<b>23.3%</b>
B3899180	UCFRBA	WS-IV NSW	0.0%	0.0%	0.0%	0.0%	NS	5.0%	NC	0.0%	<b>25.0%</b>
B3900000	NCAMBNT	WS-IV NSW	0.0%	0.9%	0.0%	0.0%	NS	1.7%	NC	<b>11.4%</b>	16.4%
B3900000	UCFRBA	WS-IV NSW	0.0%	0.0%	0.0%	0.0%	NS	5.0%	NC	<b>13.3%</b>	<b>26.7%</b>
B4050000	NCAMBNT	WS-IV	0.0%	0.0%	2.0%	0.0%	NS	1.9%	NC	NC	3.8%
B4080000	UCFRBA	WS-IV	0.0%	3.5%	0.0%	0.0%	NS	1.7%	NC	0.0%	8.3%
<b>HUC 03030003: Deep River</b>											
B4210000	NCAMBNT	WS-IV CA*	0.0%	0.0%	0.0%	0.0%	NS	8.3%	0.0%	0.0%	15.3%
B4240000	NCAMBNT	WS-IV*	0.0%	0.0%	0.0%	0.0%	NS	<b>11.7%</b>	NC	0.0%	15.3%
B4350000	UCFRBA	WS-IV CA*	0.0%	<b>11.6%</b>	0.0%	0.0%	NS	0.0%	NC	0.0%	16.7%
B4380000	UCFRBA	WS-IV CA*	0.0%	0.0%	1.2%	0.0%	NS	5.0%	NC	0.0%	<b>30.0%</b>
B4410000	UCFRBA	WS-IV CA*	0.0%	3.8%	0.0%	0.0%	NS	5.4%	NC	0.0%	13.5%
B4440000	NCAMBNT	WS-IV CA*	0.0%	0.0%	0.0%	0.0%	NS	0.0%	NC	2.9%	5.7%
B4440000	UCFRBA	WS-IV CA*	0.0%	4.8%	0.0%	0.0%	NS	0.0%	NC	6.3%	<b>26.7%</b>
B4614500	UCFRBA	WS-IV CA *	0.0%	0.0%	0.0%	0.0%	L10	NS	NC	L10	L10
B4615000	NCAMBNT	WS-IV CA*	2.9%	0.0%	0.0%	0.0%	NS	2.9%	NC	0.0%	2.9%
B4625000	UCFRBA	WS-IV*	0.0%	5.0%	0.0%	0.0%	NS	2.5%	NC	0.0%	15.0%
B4626000	UCFRBA	WS-IV*	0.0%	0.0%	0.0%	0.0%	NS	5.3%	NC	0.0%	<b>38.9%</b>
B4770500	UCFRBA	C	0.0%	0.0%	0.0%	0.0%	NS	5.0%	NC	NS	16.9%
B4800000	NCAMBNT	C	0.0%	0.0%	0.0%	0.0%	NS	<b>13.3%</b>	NC	NS	<b>20.0%</b>
B4800000	UCFRBA	C	0.0%	0.0%	1.2%	0.0%	NS	4.9%	L10	NS	<b>23.7%</b>
B4850000	UCFRBA	C	0.0%	<b>14.8%</b>	0.0%	0.0%	NS	7.4%	NC	NS	<b>22.2%</b>
B4870000	UCFRBA	C	0.0%	0.0%	0.0%	2.9%	NS	<b>14.7%</b>	NC	NS	<b>27.3%</b>
B4890000	NCAMBNT	C	0.0%	0.0%	0.0%	0.0%	NS	1.7%	NC	NS	10.2%
B4920000	UCFRBA	C	0.0%	0.0%	0.0%	1.2%	NS	3.3%	L10	NS	<b>23.7%</b>
B5070000	NCAMBNT	C	0.0%	0.0%	0.0%	0.0%	NS	<b>13.3%</b>	NC	NS	13.3%
B5070000	UCFRBA	C	0.0%	0.0%	0.0%	0.0%	NS	6.7%	NC	NS	18.6%
B5100000	UCFRBA	C	0.0%	0.0%	0.0%	0.0%	NS	6.7%	NC	NS	<b>20.3%</b>
B5131000	NCAMBNT	C	0.0%	0.0%	0.0%	0.0%	NS	L10	0.0%	NS	NC
B5190000	NCAMBNT	C	0.0%	0.0%	1.9%	0.0%	NS	3.8%	NC	NS	3.8%
B5390800	UCFRBA	WS-III	0.0%	2.4%	1.2%	0.0%	NS	3.3%	NC	8.3%	<b>66.7%</b>
B5480000	NCAMBNT	C	0.0%	<b>10.2%</b>	<b>13.5%</b>	0.0%	NS	0.0%	NC	NS	9.6%
B5520000	UCFRBA	C HQW	0.0%	0.0%	0.0%	0.0%	NS	5.0%	NC	NS	15.0%
B5575000	NCAMBNT	WS-IV HQW	0.0%	7.5%	0.0%	0.0%	NS	7.4%	2.0%	0.0%	7.4%
B5575000	UCFRBA	WS-IV HQW	0.0%	<b>11.1%</b>	0.0%	0.0%	NS	<b>11.8%</b>	L10	0.0%	<b>37.5%</b>
B5685000	UCFRBA	C	0.0%	1.2%	0.0%	0.0%	NS	5.0%	NC	NS	<b>23.3%</b>
B5820000	NCAMBNT	C	0.0%	0.0%	0.0%	0.0%	NS	0.0%	NC	NS	6.7%
B5820000	UCFRBA	C	0.0%	4.7%	1.2%	0.0%	NS	6.7%	NC	NS	<b>21.7%</b>
B5950000	UCFRBA	WS-III CA	0.0%	<b>12.9%</b>	0.0%	0.0%	NS	1.7%	NC	0.0%	18.3%
B5980000	UCFRBA	WS-III CA	0.0%	0.0%	0.0%	0.0%	NS	1.7%	NC	<b>31.7%</b>	16.7%

**Table 5a. Frequency of Evaluation Level Exceedances (cont.)**

Station	Agency	Stream Class	Water Temperature (>32 degrees C)	D.O. (<4 mg/L)	pH (<6 SU)	pH (>9 SU)	Turbidity (>25 NTU)	Turbidity (>50 NTU)	Chlorophyll a (>40 ug/L)	Nitrate & Nitrite (>10 mg/L)	Fecal coliform (>400 cois/100mL)
<b>HUC 03030003: Deep River</b>											
B6000000	NCAMBNT	WS-III CA	0.0%	0.0%	0.0%	0.0%	NS	1.8%	NC	<b>10.9%</b>	12.7%
B6040300	NCAMBNT	WS-IV	0.0%	2.0%	0.0%	0.0%	NS	5.6%	NC	NC	5.6%
B6040300	UCFRBA	WS-IV	0.0%	0.0%	0.0%	0.0%	NS	5.0%	NC	0.0%	16.7%
<b>HUC 03030004: Little River - Cape Fear River</b>											
B6130500	MCFRBA	WS-IV	0.0%	<b>25.0%</b>	8.3%	0.0%	NS	8.3%	NC	0.0%	13.3%
B6160000	MCFRBA	WS-IV CA	1.2%	0.0%	0.0%	3.5%	NS	4.9%	5.4%	0.0%	13.3%
B6160000	NCAMBNT	WS-IV CA	0.0%	0.0%	2.8%	0.0%	NS	2.8%	NC	0.0%	8.3%
B6200000	MCFRBA	C	0.0%	<b>15.0%</b>	5.0%	0.0%	NS	0.0%	NC	NS	0.0%
B6204000	MCFRBA	C	0.0%	5.0%	2.6%	0.0%	NS	0.0%	NC	NS	2.5%
B6230000	MCFRBA	WS-IV HQW	0.0%	0.0%	3.3%	0.0%	NS	1.7%	NC	0.0%	10.2%
B6252000	MCFRBA	WS-IV	0.0%	1.7%	3.3%	0.0%	NS	1.7%	NC	0.0%	6.7%
B6320000	MCFRBA	WS-IV	0.0%	3.3%	1.7%	0.0%	NS	5.0%	NC	0.0%	15.0%
B6370000	MCFRBA	WS-IV	1.2%	1.2%	0.0%	0.0%	NS	5.0%	NC	0.0%	13.3%
B6370000	NCAMBNT	WS-IV	0.0%	0.0%	4.0%	0.0%	NS	5.7%	NC	0.0%	11.3%
B6485000	MCFRBA	WS-IV	0.0%	8.3%	6.7%	0.0%	NS	1.7%	NC	0.0%	11.7%
B6820050	MCFRBA	C	L10	L10	L10	L10	NS	L10	NC	NS	L10
B6830000	MCFRBA	WS-IV	0.0%	0.0%	<b>21.7%</b>	0.0%	NS	0.0%	NC	0.0%	6.7%
B6830000	NCAMBNT	WS-IV	0.0%	0.0%	10.0%	0.0%	NS	0.0%	NC	0.0%	5.7%
B6840000	MCFRBA	WS-V	0.0%	0.0%	0.0%	0.0%	NS	3.3%	NC	1.7%	11.7%
B6840000	NCAMBNT	WS-V	0.0%	0.0%	0.0%	0.0%	NS	3.4%	NC	0.0%	6.9%
B7245000	NCAMBNT	WS-III HQW	0.0%	0.0%	<b>63.5%</b>	0.0%	NS	0.0%	NC	0.0%	3.8%
B7280000	MCFRBA	C	0.0%	0.0%	<b>38.9%</b>	0.0%	NS	1.9%	NC	NS	13.0%
B7280000	NCAMBNT	C	0.0%	0.0%	<b>44.0%</b>	0.0%	NS	0.0%	NC	NS	17.0%
B7300000	MCFRBA	C	0.0%	0.0%	<b>41.7%</b>	0.0%	NS	3.3%	NC	NS	15.0%
B7319100	MCFRBA	C	L10	L10	L10	L10	NS	L10	NC	NS	L10
B7480000	MCFRBA	WS-IV CA	0.0%	1.2%	0.0%	0.0%	NS	1.7%	NC	0.0%	5.0%
B7500000	MCFRBA	C	0.0%	1.2%	0.0%	0.0%	NS	3.3%	NC	NS	11.7%
B7546500	MCFRBA	C	NC	NC	NC	NC	NS	NC	NC	NS	11.1%
B7547000	MCFRBA	C	0.0%	0.0%	2.4%	0.0%	NS	0.0%	NC	NS	<b>25.3%</b>
B7584000	MCFRBA	C	0.0%	0.0%	9.5%	0.0%	NS	0.0%	NC	NS	<b>54.8%</b>
B7584005	MCFRBA	C	NC	NC	NC	NC	NS	NC	NC	NS	8.9%
B7584800	MCFRBA	C	0.0%	2.4%	0.0%	0.0%	NS	0.0%	NC	NS	<b>41.4%</b>
B7584900	MCFRBA	C	0.0%	<b>22.5%</b>	0.0%	0.0%	NS	2.5%	NC	NS	<b>38.5%</b>
B7590000	MCFRBA	C	0.0%	0.0%	1.7%	0.0%	NS	0.0%	NC	NS	<b>36.7%</b>
B7600000	NCAMBNT	C	0.0%	0.0%	0.0%	0.0%	NS	3.8%	NC	NS	13.2%
B7679300	MCFRBA	B	0.0%	1.7%	<b>100.0%</b>	0.0%	NS	0.0%	NC	NS	3.3%
B7700000	MCFRBA	B	0.0%	3.3%	<b>78.3%</b>	0.0%	NS	0.0%	NC	NS	<b>25.0%</b>
B7700000	NCAMBNT	B	0.0%	0.0%	<b>55.8%</b>	0.0%	NS	0.0%	NC	NS	15.1%
B8224000	NCAMBNT	C	0.0%	0.0%	<b>49.1%</b>	0.0%	NS	3.6%	NC	NS	11.1%
B8230000	MCFRBA	C	0.0%	0.0%	<b>63.8%</b>	0.0%	NS	1.7%	NC	NS	15.5%
<b>HUC 03030005: Cape Fear River</b>											
B8290000	MCFRBA	C	0.0%	0.0%	1.2%	0.0%	NS	3.4%	3.6%	NS	3.4%
B8300000	NCAMBNT	C	0.0%	1.9%	<b>15.1%</b>	0.0%	NS	NC	NC	NS	NC
B8302000	MCFRBA	C	0.0%	0.0%	1.2%	0.0%	NS	1.7%	NC	NS	5.2%

**Table 5a. Frequency of Evaluation Level Exceedances (cont.)**

Station	Agency	Stream Class	Water Temperature (>32 degrees C)	D.O. (<4 mg/L)	pH (<6 SU)	pH (>9 SU)	Turbidity (>25 NTU)	Turbidity (>50 NTU)	Chlorophyll a (>40 ug/L)	Nitrate & Nitrite (>10 mg/L)	Fecal coliform (>400 coils/100mL)
<b>HUC 03030005: Cape Fear River</b>											
B8305000	MCFRBA	C	0.0%	0.0%	2.4%	0.0%	NS	1.7%	0.0%	NS	3.4%
B8305000	NCAMBNT	C	0.0%	0.0%	6.7%	0.0%	NS	3.2%	NC	NS	19.4%
B8306000	MCFRBA	C	0.0%	0.0%	1.2%	0.0%	NS	1.7%	NC	NS	5.2%
B8315000	MCFRBA	C	0.0%	0.0%	<b>96.6%</b>	0.0%	NS	0.0%	NC	NS	8.6%
B8320000	MCFRBA	C	0.0%	0.0%	1.2%	0.0%	NS	3.4%	NC	NS	3.4%
B8321000	NCAMBNT	C	0.0%	<b>11.3%</b>	<b>100.0%</b>	0.0%	NS	0.0%	NC	NS	7.3%
B8339000	MCFRBA	C	0.0%	0.0%	1.2%	0.0%	NS	1.7%	0.0%	NS	3.4%
B8340000	NCAMBNT	C	0.0%	0.0%	9.4%	0.0%	NS	NC	NC	NS	NC
B8340050	LCFRP	C	0.0%	0.0%	5.0%	0.0%	NS	NC	NC	NS	18.3%
B8340100	MCFRBA	C	0.0%	0.0%	<b>94.8%</b>	0.0%	NS	0.0%	NC	NS	0.0%
B8340130	MCFRBA	C	0.0%	0.0%	4.8%	0.0%	NS	3.4%	NC	NS	5.2%
B8340200	LCFRP	C	0.0%	<b>11.7%</b>	3.3%	0.0%	NS	NC	NC	NS	18.3%
B8340650	MCFRBA	WS-V	0.0%	0.0%	6.0%	0.0%	NS	5.2%	NC	0.0%	3.4%
B8348000	MCFRBA	WS-IV	0.0%	0.0%	3.6%	0.0%	NS	1.7%	NC	0.0%	3.4%
B8349000	MCFRBA	WS-IV CA	0.0%	0.0%	3.6%	1.2%	NS	3.4%	1.8%	0.0%	1.7%

**Table 5b. Frequency of Evaluation Level Exceedances (swamp waters)**

Station	Agency	Stream Class	Water Temperature (>32 degrees C)	pH (<4.3 SU)	pH (>9 SU)	Turbidity (>50 NTU)	Chlorophyll a (>40 ug/L)	Nitrate & Nitrite (>10 mg/L)	Chloride (>230 mg/L)	Fluoride (>1.8 mg/L)	Fecal coliform (>400 coils/100mL)
<b>HUC 03030005: Cape Fear River</b>											
B8350000	NCAMBNT	WS-IV Sw	0.0%	0.0%	0.0%	3.6%	NC	0.0%	NC	NC	0.0%
B8360000	LCFRP	WS-IV Sw	0.0%	0.0%	0.0%	5.1%	NC	0.0%	NC	NC	1.7%
B8360000	NCAMBNT	WS-IV Sw	0.0%	0.0%	0.0%	3.0%	NC	0.0%	NC	NC	0.0%
B8441000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	8.7%
B8441000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	5.3%
B8445000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	0.0%
B8450000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	3.3%
B8450000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	3.6%	NC	NS	NC	NC	0.0%
B8465000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	0.0%
B9020000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	0.0%
B9030000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	1.7%

**Table 5b. Frequency of Evaluation Level Exceedances (swamp waters cont.)**

Station	Agency	Stream Class	Water Temperature (>32 degrees C)	pH (<4.3 SU)	pH (>9 SU)	Turbidity (>50 NTU)	Chlorophyll a (>40 ug/L)	Nitrate & Nitrite (>10 mg/L)	Chloride (>230 mg/L)	Fluoride (>1.8 mg/L)	Fecal coliform (>400 colis/100mL)
<b>HUC 03030006: Black River</b>											
B8470000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	11.7%
B8490000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	1.9%
B8545000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	0.0%
B8580000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	13.0%
B8604000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	1.7%
B8610001	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	3.3%
B8679500	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	10.5%
B8725000	NCAMBNT	C Sw ORW +	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	15.1%
B8740000	LCFRP	C Sw ORW+	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	11.7%
B8750000	NCAMBNT	C Sw ORW +	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	8.3%
B8919000	NCAMBNT	C Sw ORW +	0.0%	1.9%	0.0%	0.0%	NC	NS	NC	NC	3.6%
B8981000	LCFRP	C Sw	0.0%	<b>87.7%</b>	0.0%	NC	NC	NS	NC	NC	1.8%
B9000000	LCFRP	C Sw ORW+	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	3.3%
B9013000	NCAMBNT	C Sw ORW +	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	0.0%
<b>HUC 03030007: Northeast Cape Fear River</b>											
B9080000	NCAMBNT	C Sw	1.9%	0.0%	0.0%	NC	0.0%	NS	<b>55.8%</b>	0.0%	NC
B9090000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	14.0%
B9090000	NCAMBNT	C Sw	1.9%	0.0%	0.0%	0.0%	NC	NS	NC	NC	3.8%
B9130000	LCFRP	C Sw	1.7%	0.0%	0.0%	NC	NC	NS	NC	NC	<b>31.7%</b>
B9190500	NCAMBNT	C Sw	0.0%	0.0%	0.0%	1.7%	NC	NS	NC	NC	0.0%
B9191000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	16.7%
B9191500	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	16.7%
B9196000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	3.4%
B9430000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	6.7%
B9460000	LCFRP	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	13.6%
B9470000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	12.1%
B9480000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	10.3%
B9490000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	6.7%
B9490000	NCAMBNT	C Sw	0.0%	2.9%	0.0%	0.0%	NC	NS	NC	NC	14.3%
B9500000	LCFRP	C Sw	0.0%	0.0%	0.0%	1.7%	<b>20.0%</b>	NS	NC	NC	<b>28.3%</b>
B9520000	LCFRP	C Sw	0.0%	0.0%	0.0%	0.0%	0.0%	NS	NC	NC	<b>46.7%</b>
B9520000	NCAMBNT	C Sw	0.0%	0.0%	0.0%	0.0%	0.0%	NS	NC	NC	<b>31.0%</b>
B9550000	NCAMBNT	C Sw	0.0%	<b>43.9%</b>	0.0%	1.7%	NC	NS	NC	NC	3.4%
B9580000	LCFRP	B Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	6.7%
B9580000	NCAMBNT	B Sw	0.0%	0.0%	0.0%	0.0%	NC	NS	NC	NC	0.0%
B9670000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	1.7%
B9720000	LCFRP	C Sw	0.0%	0.0%	0.0%	NC	NC	NS	NC	NC	8.9%



**Table 5c. Frequency of Evaluation Level Exceedances (salt waters)**

Station	Agency	Stream Class	Water Temperature (>32 degrees C)	D.O. (<5 mg/L)	pH (<4.3 SU)	pH (<6.8 SU)	pH (>8.5 SU)	Turbidity (>25 NTU)	Chlorophyll a (>40 ug/L)	Fecal coliform (>400 cols/100mL)	Fecal coliform (>43 cols/100mL)
<b>HUC 03030005: Cape Fear River</b>											
B9050000	NCAMBNT	SC	0.0%	<b>31.4%</b>	NS	<b>34.6%</b>	0.0%	5.5%	NC	0.0%	NS
B9050025	LCFRP	SC	0.0%	<b>48.1%</b>	NS	<b>31.1%</b>	0.0%	<b>18.3%</b>	NC	3.3%	NS
B9050100	LCFRP	SC	0.0%	<b>45.9%</b>	NS	<b>25.9%</b>	0.0%	NC	NC	0.0%	NS
B9790000	LCFRP	SC	1.7%	<b>20.0%</b>	NS	5.0%	0.0%	NC	NC	0.0%	NS
B9795000	LCFRP	SC	0.0%	<b>20.5%</b>	NS	7.2%	0.0%	NC	NC	1.7%	NS
B9800000	LCFRP	SC	0.0%	<b>32.5%</b>	NS	<b>12.0%</b>	0.0%	3.3%	0.0%	0.0%	NS
B9800000	NCAMBNT	SC	0.0%	<b>26.9%</b>	NS	<b>17.0%</b>	0.0%	5.5%	NC	0.0%	NS
B9820000	NCAMBNT	SC	0.0%	<b>19.2%</b>	NS	<b>13.2%</b>	0.0%	3.6%	L10	0.0%	NS
B9845100	LCFRP	SC	0.0%	9.6%	NS	3.6%	0.0%	NC	NC	1.7%	NS
B9850100	LCFRP	SC	0.0%	7.2%	NS	0.0%	0.0%	NC	NC	1.7%	NS
B9910000	LCFRP	SA HQW	0.0%	1.2%	NS	0.0%	0.0%	NC	NC	0.0%	3.3%
B9921000	LCFRP	SC	0.0%	0.0%	NS	0.0%	0.0%	1.7%	0.0%	0.0%	NS
B9980000	LCFRP	SA HQW	1.2%	9.6%	NS	0.0%	0.0%	NC	NC	0.0%	5.0%
<b>HUC 03030007: Northeast Cape Fear River</b>											
B9740000	NCAMBNT	SC Sw	0.0%	NS	0.0%	NS	0.0%	1.8%	NC	0.0%	NS

Notes:

**NS: No Standard** exists for this parameter in this stream class.

**NC:** Samples for this parameter were **Not Collected**.

**L10: Less than 10 samples** were collected for this parameter, therefore the results were not assessed.

1: In trout waters, a dissolved oxygen standard of 6 mg/L applies.

**Table 6a. Summary of Water Quality Parameter Averages**

Station	Agency	Water Temperature (°C)		D.O. (mg/L)		pH (SU)		Spec. conductance (umhos/cm at 25°C)		Turbidity (NTU)		Chlorophyll a (ug/L)		Fecal coliform (# colonies per 100mL)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>River Basin Average</b>		<b>19.3</b>		<b>7.6</b>		<b>6.9</b>		<b>4,137</b>		<b>13.1</b>		<b>9.5</b>		<b>75</b>	
<b>HUC 03030002</b>		<b>17.8</b>		<b>8.4</b>		<b>7.3</b>		<b>277</b>		<b>16.7</b>		<b>30.0</b>		<b>108</b>	
B0040000	NCAMBNT	58	14.6	58	7.7	59	7.1	57	103	59	13.9			58	108
B0050000	NCAMBNT	15	14.3	15	9.3	15	7.1	15	96	15	11.3			15	78
B0050000	UCFRBA	85	17.7	85	7.9	85	7.0	85	97	60	13.1			60	90
B0070010	UCFRBA	60	16.7	60	8.0	60	6.9	60	98	60	8.2			60	45
B0160000	NCAMBNT	60	16.1	59	9.4	60	7.3	58	131	60	15.8			59	156
B0170000	UCFRBA	86	17.6	86	8.4	86	7.1	86	202	61	17.6			61	112
B0190000	NCAMBNT	8	15.5	8	10.4	8	7.5	8	128	8	11.2			8	49
B0210000	NCAMBNT	51	16.4	50	9.8	51	7.4	50	160	51	18.6			50	69
B0400000	UCFRBA	60	15.8	60	9.1	60	7.1	60	103	60	10.3			60	63
B0480050	UCFRBA	86	18.1	86	8.2	86	7.3	86	236	61	7.4			61	265
B0540000	NCAMBNT	59	17.4	57	8.0	57	7.3	57	332	59	7.5			58	137
B0540050	UCFRBA	86	18.9	86	8.6	86	7.3	86	379	61	8.4			61	190
B0670000	UCFRBA	86	18.5	86	9.2	86	7.5	86	249	61	20.1			61	189
B0750000	NCAMBNT	58	19.4	56	8.0	56	7.6	56	674	59	9.0			57	222
B0750000	UCFRBA	86	21.3	86	7.7	86	7.6	86	765	61	7.8			61	265
B0840000	NCAMBNT	59	17.6	58	9.6	59	7.6	58	392	59	15.2			55	142
B0850000	UCFRBA	85	18.1	85	9.6	85	7.6	85	327	60	9.7			60	90
B1095000	NCAMBNT	56	16.2	55	8.8	56	7.3	55	119	56	15.8			54	118
B1140000	NCAMBNT	59	17.5	58	10.4	59	7.9	59	297	59	12.8			56	135
B1200000	UCFRBA	85	18.8	85	9.0	85	7.6	85	308	60	10.9			60	124
B1260000	NCAMBNT	59	16.0	58	9.4	59	7.4	59	257	59	11.6			56	181
B1350000	UCFRBA	84	16.1	84	7.3	83	7.0	84	163	60	15.3			60	172
B1380000	UCFRBA	85	17.0	85	8.7	85	7.3	85	362	60	16.6			60	164
B1440000	UCFRBA	84	18.8	85	9.2	85	7.7	85	294	60	11.3			60	88
B1940000	UCFRBA	85	17.5	85	8.2	85	7.2	85	138	60	13.2			60	177
B1960000	NCAMBNT	59	17.5	57	8.5	59	7.4	59	290	59	13.0			56	123
B1960000	UCFRBA	85	18.6	85	7.6	85	7.1	85	348	60	13.5			60	151
B1980000	NCAMBNT	58	17.9	58	9.5	59	7.7	59	256	59	19.4			56	64
B2000000	UCFRBA	59	17.7	59	9.8	59	7.6	59	267	60	15.3			60	88
B2100000	NCAMBNT	113	17.7	110	10.2	113	7.6	112	251	60	20.9	4	5.0	60	50
B2100000	UCFRBA	43	18.8	43	10.4	43	8.1	43	263	44	16.0			44	60
B2210000	UCFRBA	16	15.6	16	11.5	16	7.9	16	182	16	12.1			16	86
B2450000	NCAMBNT	54	19.4	50	10.0	54	7.5	53	178	54	13.4	49	31.7	54	10
B2450000	UCFRBA	85	21.6	85	10.2	85	8.0	84	201	60	15.4			60	20
B3020000	UCFRBA	85	18.2	85	6.2	85	6.8	85	159	60	31.1			60	183
B3025000	UCFRBA	60	15.5	60	6.8	60	6.9	60	249	60	29.1			60	218
B3040000	NCAMBNT	98	16.5	95	7.5	98	6.8	97	315	53	24.1			53	119
B3040000	UCFRBA	85	19.4	85	7.5	85	7.0	85	306	60	24.2			60	159
B3300000	UCFRBA	85	18.0	85	5.8	85	6.9	85	189	60	30.1			60	175
B3660000	NCAMBNT	113	17.2	110	7.0	113	7.0	112	460	60	23.4			60	143
B3670000	UCFRBA	85	18.9	85	7.8	85	7.1	85	384	60	70.9			60	189
B3899180	UCFRBA	85	17.9	85	8.5	85	7.2	85	205	60	14.0			60	202

**Table 6a. Summary of Water Quality Parameter Averages (cont.)**

Station	Agency	Water Temperature (°C)		D.O. (mg/L)		pH (SU)		Spec. conductance (umhos/cm at 25°C)		Turbidity (NTU)		Chlorophyll a (ug/L)		Fecal coliform (# colonies per 100mL)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>River Basin Average</b>		<b>19.3</b>		<b>7.6</b>		<b>6.9</b>		<b>4,137</b>		<b>13.1</b>		<b>9.5</b>		<b>75</b>	
<b>HUC 03030002</b>		<b>17.8</b>		<b>8.4</b>		<b>7.3</b>		<b>277</b>		<b>16.7</b>		<b>30.0</b>		<b>108</b>	
B3900000	NCAMBNT	113	16.4	110	7.5	112	7.0	112	404	60	15.5			61	171
B3900000	UCFRBA	85	18.9	85	7.5	85	7.2	85	408	60	18.0			60	236
B4050000	NCAMBNT	53	17.6	49	8.9	51	6.9	52	177	53	12.9			53	8
B4080000	UCFRBA	85	19.9	85	8.6	85	7.2	85	183	60	12.6			60	23
<b>HUC 03030003</b>		<b>17.8</b>		<b>8.5</b>		<b>7.2</b>		<b>217</b>		<b>15.6</b>		<b>4.3</b>		<b>107</b>	
B4210000	NCAMBNT	58	15.1	58	9.3	58	7.3	58	95	60	25.4	55	2.2	59	191
B4240000	NCAMBNT	58	16.3	58	9.7	58	7.5	58	132	60	23.7			59	140
B4350000	UCFRBA	85	18.4	86	7.5	86	7.1	86	163	61	12.8			60	101
B4380000	UCFRBA	86	18.2	86	9.0	86	7.1	86	170	60	12.3			60	190
B4410000	UCFRBA	53	20.4	53	8.0	53	7.0	53	357	37	11.1			37	45
B4440000	NCAMBNT	35	18.7	35	8.5	35	7.3	35	306	35	9.5			35	60
B4440000	UCFRBA	21	18.1	21	7.7	21	6.9	21	290	16	12.7			15	189
B4614500	UCFRBA	11	24.3	11	7.9	11	7.7	11	208	7	5.7			7	11
B4615000	NCAMBNT	34	18.2	35	9.6	35	7.6	35	262	35	11.7			35	49
B4625000	UCFRBA	40	14.9	40	8.5	40	7.1	40	146	40	11.0			40	154
B4626000	UCFRBA	19	15.4	19	8.8	19	7.1	19	151	19	11.5			18	312
B4770500	UCFRBA	85	18.1	85	8.7	85	7.2	85	211	60	11.9			59	87
B4800000	NCAMBNT	15	14.3	15	10.4	15	7.6	15	182	15	30.1			15	182
B4800000	UCFRBA	85	18.5	85	9.2	85	7.3	85	204	61	13.8	5	11.5	59	200
B4850000	UCFRBA	27	14.8	27	8.1	27	6.9	27	130	27	15.6			27	244
B4870000	UCFRBA	34	16.7	34	9.0	34	7.1	34	127	34	29.8			33	188
B4890000	NCAMBNT	59	19.1	57	8.9	58	7.5	58	735	59	10.1			59	97
B4920000	UCFRBA	85	19.2	85	8.5	85	7.3	85	259	61	15.6	5	7.6	59	183
B5070000	NCAMBNT	15	14.3	15	10.2	15	7.4	15	163	15	24.0			15	126
B5070000	UCFRBA	85	19.4	85	8.5	85	7.3	84	214	60	17.5			59	93
B5100000	UCFRBA	85	19.1	85	8.1	85	7.3	84	202	60	21.1			59	148
B5131000	NCAMBNT	33	17.3	32	8.8	33	7.5	33	174	1	6.8	28	3.8		
B5190000	NCAMBNT	53	16.2	49	9.5	52	6.8	52	161	53	14.2			52	53
B5390800	UCFRBA	85	16.6	85	7.8	85	7.0	85	398	60	11.3			60	607
B5480000	NCAMBNT	53	14.7	49	7.8	52	6.4	52	72	53	7.6			52	64
B5520000	UCFRBA	60	17.7	60	9.9	60	7.7	60	153	60	21.5			60	64
B5575000	NCAMBNT	54	18.0	53	7.8	54	6.8	53	141	54	16.9	49	4.9	54	46
B5575000	UCFRBA	17	15.7	18	8.3	18	7.0	18	145	17	19.0	5	12.6	16	156
B5685000	UCFRBA	84	19.1	84	7.7	84	7.0	84	139	60	19.3			60	106
B5820000	NCAMBNT	15	15.7	15	8.2	15	6.7	15	138	15	15.1			15	45
B5820000	UCFRBA	85	19.2	85	7.3	85	6.9	85	166	60	23.7			60	121
B5950000	UCFRBA	85	18.5	85	6.9	85	7.0	85	108	60	9.6			60	99
B5980000	UCFRBA	85	18.1	85	8.1	85	7.1	85	421	60	8.5			60	144
B6000000	NCAMBNT	55	16.7	54	9.8	54	7.2	54	304	55	7.0			55	55
B6040300	NCAMBNT	54	17.8	50	8.7	54	7.0	53	149	54	18.3			54	41
B6040300	UCFRBA	60	17.5	60	9.5	60	7.2	60	151	60	19.7			60	70

**Table 6a. Summary of Water Quality Parameter Averages (cont.)**

Station	Agency	Water Temperature (°C)		D.O. (mg/L)		pH (SU)		Spec. conductance (umhos/cm at 25°C)		Turbidity (NTU)		Chlorophyll a (ug/L)		Fecal coliform (# colonies per 100mL)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>River Basin Average</b>		<b>19.3</b>		<b>7.6</b>		<b>6.9</b>		<b>4,137</b>		<b>13.1</b>		<b>9.5</b>		<b>75</b>	
<b>HUC 03030004</b>		<b>18.0</b>		<b>8.5</b>		<b>6.6</b>		<b>119</b>		<b>10.8</b>		<b>13.2</b>		<b>91</b>	
B6130500	MCFRBA	60	15.0	60	6.9	60	6.6	60	83	60	21.3			60	119
B6160000	MCFRBA	85	20.9	85	8.9	85	7.3	85	168	61	16.0	56	13.2	60	41
B6160000	NCAMBNT	36	18.3	34	9.1	36	7.0	36	160	36	16.9			36	32
B6200000	MCFRBA	20	16.9	20	8.4	20	6.8	20	90	20	3.1			20	19
B6204000	MCFRBA	40	16.2	40	7.6	39	6.9	40	108	40	4.7			40	32
B6230000	MCFRBA	60	14.4	60	9.8	60	6.8	60	63	60	7.3			59	127
B6252000	MCFRBA	60	15.6	60	8.8	60	6.8	60	100	60	11.7			60	91
B6320000	MCFRBA	60	15.1	60	8.8	60	6.7	60	133	60	17.6			60	139
B6370000	MCFRBA	85	20.5	85	8.0	85	7.2	85	159	60	18.0			60	94
B6370000	NCAMBNT	52	18.4	51	8.5	50	6.7	52	152	53	22.7			53	67
B6485000	MCFRBA	59	15.9	60	8.2	60	6.6	60	97	60	7.0			60	128
B6820050	MCFRBA	6	18.4	6	8.3	6	6.5	6	77	6	6.6			6	50
B6830000	MCFRBA	60	16.4	60	8.9	60	6.4	60	72	60	6.5			60	69
B6830000	NCAMBNT	52	16.3	51	8.3	50	6.4	52	69	53	6.2			53	66
B6840000	MCFRBA	85	20.8	85	8.6	85	7.2	85	150	60	15.2			60	59
B6840000	NCAMBNT	29	18.1	28	8.8	28	6.7	29	134	29	18.2			29	49
B7245000	NCAMBNT	53	15.6	49	8.4	52	5.9	52	39	53	3.6			52	56
B7280000	MCFRBA	54	16.4	54	9.4	54	6.2	54	57	54	7.1			54	112
B7280000	NCAMBNT	52	16.4	51	9.2	50	6.1	52	44	53	4.8			53	140
B7300000	MCFRBA	60	16.4	60	9.3	60	6.1	60	57	60	9.7			60	104
B7319100	MCFRBA	6	17.7	6	8.9	6	5.7	6	59	6	4.5			6	110
B7480000	MCFRBA	251	20.7	251	8.0	249	7.1	250	135	60	13.5			60	61
B7500000	MCFRBA	251	20.7	252	7.8	251	7.1	252	139	60	13.1			60	75
B7546500	MCFRBA													45	22
B7547000	MCFRBA	42	17.5	42	10.1	42	6.7	42	62	42	5.8			87	122
B7584000	MCFRBA	42	17.9	42	9.2	42	6.4	42	78	42	8.6			42	562
B7584005	MCFRBA													45	45
B7584800	MCFRBA	42	17.4	42	7.4	42	6.9	42	222	42	14.4			87	275
B7584900	MCFRBA	40	15.6	40	6.0	40	7.4	39	837	40	19.0			39	331
B7590000	MCFRBA	60	17.0	60	9.5	60	6.9	60	94	60	6.6			60	256
B7600000	NCAMBNT	52	18.7	52	8.4	50	6.7	52	127	53	18.2			53	73
B7679300	MCFRBA	60	16.0	60	9.1	60	4.1	60	49	60	3.2			60	46
B7700000	MCFRBA	60	16.3	60	8.8	60	5.5	60	52	60	4.2			60	144
B7700000	NCAMBNT	54	16.4	53	8.3	52	5.9	53	36	54	3.8			53	101
B8224000	NCAMBNT	55	16.5	54	9.1	53	6.0	54	37	55	10.7			54	106
B8230000	MCFRBA	58	16.8	58	9.4	58	5.7	58	50	58	9.4			58	89

**Table 6a. Summary of Water Quality Parameter Averages (cont.)**

Station	Agency	Water Temperature (°C)		D.O. (mg/L)		pH (SU)		Spec. conductance (umhos/cm at 25°C)		Turbidity (NTU)		Chlorophyll a (ug/L)		Fecal coliform (# colonies per 100mL)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>River Basin Average</b>		<b>19.3</b>		<b>7.6</b>		<b>6.9</b>		<b>4,137</b>		<b>13.1</b>		<b>9.5</b>		<b>75</b>	
<b>HUC 03030005</b>		<b>21.0</b>		<b>7.1</b>		<b>6.9</b>		<b>8,496</b>		<b>11.9</b>		<b>6.2</b>		<b>28</b>	
B8290000	MCFRBA	247	20.9	247	7.4	247	7.0	247	127	59	15.4	56	7.5	58	51
B8300000	NCAMBNT	54	18.6	52	8.4	53	6.4	54	120						
B8302000	MCFRBA	249	21.0	249	7.9	249	6.8	249	128	58	12.3			58	31
B8305000	MCFRBA	249	21.0	249	7.9	249	6.8	249	136	59	11.9	56	4.4	58	29
B8305000	NCAMBNT	31	18.0	31	8.3	30	6.5	31	121	31	17.7			31	94
B8306000	MCFRBA	249	21.1	249	7.6	249	6.8	249	136	58	13.3			58	31
B8315000	MCFRBA	58	16.0	58	7.7	58	4.4	58	72	58	3.9			58	110
B8320000	MCFRBA	249	21.1	249	7.5	249	6.8	249	134	58	13.5			58	30
B8321000	NCAMBNT	55	16.0	53	6.0	54	3.9	55	69	55	3.8			55	67
B8339000	MCFRBA	248	21.0	249	7.4	249	6.7	249	134	59	13.4	56	5.1	58	28
B8340000	NCAMBNT	54	19.0	52	8.3	53	6.5	54	128						
B8340050	LCFRP	60	17.5	60	8.9	60	6.6	60	114					60	119
B8340100	MCFRBA	58	16.8	58	7.4	58	4.2	58	64	58	2.7			58	31
B8340130	MCFRBA	248	21.2	249	7.8	249	6.7	247	131	58	15.0			58	24
B8340200	LCFRP	60	16.5	60	7.3	60	6.7	60	156					60	138
B8340650	MCFRBA	249	21.2	249	7.3	249	6.7	249	127	58	13.5			58	20
B8348000	MCFRBA	249	21.3	249	7.5	249	6.7	249	126	58	13.5			58	16
B8349000	MCFRBA	249	21.5	249	7.2	249	6.7	249	127	59	12.5	55	6.4	58	14
B8350000	NCAMBNT	156	19.1	151	8.4	154	6.7	148	116	55	17.3			55	18
B8360000	LCFRP	337	22.6	337	7.8	337	6.6	337	128	59	16.5			60	20
B8360000	NCAMBNT	96	18.1	96	8.5	96	6.8	96	109	33	17.2			33	25
B8441000	LCFRP	46	18.2	46	5.6	46	6.6	46	139					46	75
B8441000	NCAMBNT	57	17.5	57	5.3	57	6.3	57	123	57	5.1			57	88
B8445000	LCFRP	38	19.0	38	7.8	38	6.6	38	176					14	22
B8450000	LCFRP	340	22.7	340	7.3	340	6.8	340	185					60	30
B8450000	NCAMBNT	159	19.2	153	7.8	156	6.7	150	174	55	16.7			55	21
B8465000	LCFRP	340	22.7	340	6.4	340	6.7	340	188					60	33
B9020000	NCAMBNT	160	19.0	154	6.5	157	6.6	151	248	55	12.9			55	33
B9030000	LCFRP	341	22.7	341	5.9	341	6.7	341	637					60	33
B9050000	NCAMBNT	159	19.3	153	6.4	156	6.8	150	5,541	55	13.1			55	35
B9050025	LCFRP	341	22.8	341	5.8	341	6.9	341	5,337	60	18.2			60	37
B9050100	LCFRP	341	22.9	341	5.7	341	6.9	341	9,477					60	37
B9790000	LCFRP	180	19.7	180	6.9	180	7.3	180	9,233					60	37
B9795000	LCFRP	229	21.3	229	6.7	229	7.5	229	22,001					60	24
B9800000	LCFRP	229	21.2	229	6.3	229	7.3	229	17,161	60	9.3	26	8.7	60	32
B9800000	NCAMBNT	161	19.3	155	6.5	158	7.2	149	18,421	55	9.7			55	35
B9820000	NCAMBNT	162	19.3	156	6.8	159	7.3	150	21,663	55	9.2	1	21.0	55	27
B9845100	LCFRP	229	21.3	229	6.9	229	7.7	229	26,967					60	17
B9850100	LCFRP	229	21.4	229	7.1	229	7.8	229	32,501					60	8
B9910000	LCFRP	226	21.3	226	7.2	226	7.9	226	42,834					60	4
B9921000	LCFRP	229	21.3	229	7.2	229	7.9	229	45,903	59	7.7	25	6.2	60	4
B9980000	LCFRP	229	21.5	229	7.0	229	7.7	229	42,290					60	6

**Table 6a. Summary of Water Quality Parameter Averages (cont.)**

Station	Agency	Water Temperature (°C)		D.O. (mg/L)		pH (SU)		Spec. conductance (umhos/cm at 25°C)		Turbidity (NTU)		Chlorophyll a (ug/L)		Fecal coliform (# colonies per 100mL)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>River Basin Average</b>		<b>19.3</b>		<b>7.6</b>		<b>6.9</b>		<b>4,137</b>		<b>13.1</b>		<b>9.5</b>		<b>75</b>	
<b>HUC 03030006</b>		<b>17.5</b>		<b>6.4</b>		<b>6.1</b>		<b>110</b>		<b>4.5</b>				<b>70</b>	
B8470000	LCFRP	60	16.7	60	4.9	60	6.1	60	117					60	84
B8490000	NCAMBNT	55	16.6	53	4.8	53	6.1	54	85	55	2.5			54	56
B8545000	NCAMBNT	52	18.4	50	6.8	50	6.2	51	87	52	2.9			51	56
B8580000	NCAMBNT	55	17.1	53	3.8	53	6.0	54	104	55	5.6			54	115
B8604000	LCFRP	60	16.9	60	6.4	60	6.4	60	170					60	43
B8610001	LCFRP	60	16.8	60	8.2	60	6.3	60	99					60	53
B8679500	NCAMBNT	20	16.4	20	4.3	20	6.3	20	134	20	9.0			19	85
B8725000	NCAMBNT	55	17.6	53	7.7	53	6.5	54	125	55	6.3			53	168
B8740000	LCFRP	60	17.0	60	8.3	60	6.6	60	122					60	100
B8750000	NCAMBNT	49	17.3	47	7.6	47	6.4	48	109	49	4.6			48	81
B8919000	NCAMBNT	55	17.1	53	6.5	54	5.7	55	72	55	2.3			55	71
B8981000	LCFRP	57	17.0	57	6.7	57	4.0	57	95					57	47
B9000000	LCFRP	60	18.7	60	6.9	60	6.1	60	106					60	61
B9013000	NCAMBNT	162	18.6	156	6.0	159	6.2	153	115	55	5.9			55	51
<b>HUC 03030007</b>		<b>18.5</b>		<b>6.6</b>		<b>6.6</b>		<b>2,828</b>		<b>7.1</b>		<b>13.6</b>		<b>98</b>	
B9080000	NCAMBNT	52	18.3	50	5.3	51	6.4	49	1,269			2	8.6		
B9090000	LCFRP	57	17.5	57	4.6	57	6.4	57	437					57	82
B9090000	NCAMBNT	53	17.4	51	5.0	52	6.2	50	409	53	4.4			53	66
B9130000	LCFRP	60	18.6	60	7.7	60	6.7	60	3,277					60	215
B9190500	NCAMBNT	58	16.9	56	6.8	57	6.5	55	226	58	7.8			58	84
B9191000	LCFRP	60	17.5	60	4.8	60	6.5	60	206					60	105
B9191500	LCFRP	60	17.8	60	7.1	60	6.6	60	205					60	144
B9196000	NCAMBNT	58	17.2	56	8.2	57	6.5	55	167	58	4.7			58	118
B9430000	LCFRP	60	17.9	60	7.8	60	6.9	60	158					60	93
B9460000	LCFRP	59	18.1	59	9.4	59	7.2	59	143	58	5.1			59	90
B9470000	NCAMBNT	58	17.5	56	7.8	57	6.6	55	158	58	5.3			58	137
B9480000	NCAMBNT	58	17.9	56	7.3	57	6.4	55	142	58	5.5			58	84
B9490000	LCFRP	60	18.1	60	5.3	60	6.0	60	124					60	79
B9490000	NCAMBNT	35	15.7	35	5.6	35	5.7	35	88	35	6.0			35	109
B9500000	LCFRP	60	16.8	60	5.9	60	6.8	60	220	59	12.6	25	44.1	60	174
B9520000	LCFRP	60	18.3	60	7.7	60	7.3	60	607	60	9.6	25	2.4	60	363
B9520000	NCAMBNT	57	19.3	56	9.3	57	7.4	55	603	58	9.2	41	2.2	58	258
B9550000	NCAMBNT	58	15.7	56	6.6	57	4.6	55	61	58	8.1			58	83
B9580000	LCFRP	60	19.4	60	6.4	60	6.3	60	265					60	49
B9580000	NCAMBNT	57	18.6	55	6.2	56	6.2	54	241	57	3.9			57	35
B9670000	LCFRP	229	21.2	229	6.2	229	6.7	229	5,679					60	49
B9720000	LCFRP	56	20.6	56	6.4	56	6.7	56	7,007					56	78
B9740000	NCAMBNT	157	19.5	151	6.1	154	7.0	147	14,751	55	9.9			55	40

**Table 6b. Summary of Water Quality Parameter Averages (Nutrients)**

Station	Agency	Total Nitrogen (mg/L) (calculated)		Total Organic Nitrogen (mg/L) (calculated)		Total Inorganic Nitrogen (mg/L) (calculated)		NH3 as N (mg/L)		NO2 + NO3 as N (mg/L)		Total Phosphorus (mg/L)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>Entire Basin</b>		<b>2.01</b>		<b>0.66</b>		<b>1.35</b>		<b>0.10</b>		<b>1.24</b>		<b>0.19</b>	
<b>HUC 03030002</b>		<b>2.90</b>		<b>0.56</b>		<b>2.24</b>		<b>0.09</b>		<b>2.15</b>		<b>0.24</b>	
B0040000	NCAMBNT	58	0.41	59	0.30	58	0.11	59	0.04	58	0.07	59	0.04
B0050000	NCAMBNT	15	0.48	15	0.28	15	0.20	15	0.02	15	0.17	15	0.05
B0050000	UCFRBA	60	1.09	60	0.89	60	0.21	60	0.04	60	0.17	60	0.05
B0070010	UCFRBA	58	0.68	58	0.42	58	0.26	58	0.12	60	0.14	60	0.05
B0160000	NCAMBNT	60	0.79	60	0.31	60	0.48	60	0.04	60	0.44	60	0.08
B0170000	UCFRBA	60	0.75	61	0.42	60	0.33	61	0.05	60	0.28	61	0.09
B0190000	NCAMBNT	8	0.64	8	0.33	8	0.32	8	0.02	8	0.29	8	0.05
B0210000	NCAMBNT	51	0.66	51	0.41	51	0.25	51	0.03	51	0.22	51	0.08
B0400000	UCFRBA	59	0.59	59	0.37	59	0.22	59	0.04	60	0.18	60	0.06
B0480050	UCFRBA	60	0.89	60	0.42	60	0.47	60	0.07	61	0.41	62	0.06
B0540000	NCAMBNT	59	10.61	59	0.84	59	9.77	59	0.40	59	9.38	59	0.55
B0540050	UCFRBA	60	9.13	60	0.58	60	8.56	60	0.26	61	8.30	61	0.44
B0670000	UCFRBA	61	0.92	61	0.46	61	0.46	61	0.10	61	0.36	61	0.07
B0750000	NCAMBNT	59	6.58	59	1.17	59	5.41	59	0.14	59	5.27	59	0.66
B0750000	UCFRBA	61	6.56	61	1.02	61	5.53	61	0.30	61	5.23	61	0.56
B0840000	NCAMBNT	59	4.88	59	0.81	59	4.08	59	0.09	59	3.98	59	0.80
B0850000	UCFRBA	60	2.91	60	0.56	60	2.36	60	0.05	60	2.31	60	0.25
B1095000	NCAMBNT												
B1140000	NCAMBNT	59	3.03	59	0.79	59	2.24	59	0.04	59	2.20	59	0.23
B1200000	UCFRBA	60	2.86	60	0.69	60	2.17	60	0.05	60	2.12	60	0.24
B1260000	NCAMBNT	58	1.05	58	0.48	58	0.57	58	0.07	58	0.50	58	0.08
B1350000	UCFRBA	2	0.84	2	0.36	2	0.49	2	0.10	2	0.39	8	0.06
B1380000	UCFRBA	60	3.66	60	0.70	60	2.96	60	0.18	60	2.78	60	0.38
B1440000	UCFRBA	60	2.77	60	0.71	60	2.06	60	0.05	60	2.02	60	0.22
B1940000	UCFRBA	60	0.68	60	0.39	60	0.29	60	0.05	60	0.24	60	0.05
B1960000	NCAMBNT	43	2.26	43	0.80	43	1.47	43	0.07	43	1.40	43	0.36
B1960000	UCFRBA	60	1.95	60	0.72	60	1.23	60	0.08	60	1.15	60	0.27
B1980000	NCAMBNT	1	2.80	1	1.11	1	1.69	1	0.09	1	1.60	1	0.22
B2000000	UCFRBA	60	1.97	60	0.61	60	1.36	60	0.06	60	1.30	60	0.18
B2100000	NCAMBNT	113	1.77	113	0.63	113	1.14	113	0.04	113	1.11	113	0.17
B2100000	UCFRBA	44	1.70	44	0.58	44	1.12	44	0.04	44	1.08	44	0.15
B2210000	UCFRBA	16	1.42	16	0.58	16	0.84	16	0.06	16	0.79	16	0.11
B2450000	NCAMBNT	54	1.27	54	0.79	54	0.48	54	0.04	54	0.44	54	0.10
B2450000	UCFRBA	60	1.29	60	0.79	60	0.49	60	0.05	60	0.45	60	0.11
B3020000	UCFRBA	60	0.79	60	0.58	60	0.21	60	0.09	60	0.13	60	0.10
B3025000	UCFRBA	60	1.03	60	0.73	60	0.31	60	0.11	60	0.20	60	0.17
B3040000	NCAMBNT	97	4.61	97	0.86	97	3.76	97	0.05	97	3.71	97	0.49
B3040000	UCFRBA	60	4.02	60	0.78	60	3.24	60	0.09	60	3.14	60	0.42
B3300000	UCFRBA	60	0.92	60	0.69	60	0.23	60	0.07	60	0.16	60	0.09
B3660000	NCAMBNT	113	4.46	113	0.90	113	3.57	113	0.09	113	3.48	113	0.49
B3670000	UCFRBA	60	3.00	60	0.86	60	2.14	60	0.07	60	2.07	60	0.32
B3899180	UCFRBA	60	0.96	60	0.37	60	0.59	60	0.05	60	0.54	60	0.08

**Table 6b. Summary of Water Quality Parameter Averages (Nutrients cont.)**

Station	Agency	Total Nitrogen (mg/L) (calculated)		Total Organic Nitrogen (mg/L) (calculated)		Total Inorganic Nitrogen (mg/L) (calculated)		NH3 as N (mg/L)		NO2 + NO3 as N (mg/L)		Total Phosphorus (mg/L)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>Entire Basin</b>		<b>2.01</b>		<b>0.66</b>		<b>1.35</b>		<b>0.10</b>		<b>1.24</b>		<b>0.19</b>	
<b>HUC 03030002</b>		<b>2.90</b>		<b>0.56</b>		<b>2.24</b>		<b>0.09</b>		<b>2.15</b>		<b>0.24</b>	
B3900000	NCAMBNT	114	7.08	114	0.78	114	6.30	114	0.19	114	6.10	114	0.28
B3900000	UCFRBA	58	6.62	58	0.65	58	5.96	58	0.19	60	5.78	60	0.25
B4050000	NCAMBNT												
B4080000	UCFRBA	60	1.13	60	0.60	60	0.53	60	0.11	60	0.42	60	0.07
<b>HUC 03030003</b>		<b>2.68</b>		<b>0.59</b>		<b>2.09</b>		<b>0.07</b>		<b>2.02</b>		<b>0.25</b>	
B4210000	NCAMBNT	60	0.76	60	0.26	60	0.51	60	0.02	60	0.48	60	0.07
B4240000	NCAMBNT	60	0.59	60	0.33	60	0.27	60	0.03	60	0.23	60	0.06
B4350000	UCFRBA	60	0.84	60	0.44	60	0.41	60	0.06	60	0.35	61	0.05
B4380000	UCFRBA	60	0.90	60	0.31	60	0.59	60	0.13	60	0.46	60	0.04
B4410000	UCFRBA	37	2.45	37	0.68	37	1.77	37	0.10	37	1.67	37	0.57
B4440000	NCAMBNT	35	3.45	35	0.74	35	2.71	35	0.05	35	2.66	35	0.55
B4440000	UCFRBA	16	4.54	16	0.83	16	3.71	16	0.14	16	3.57	16	0.64
B4614500	UCFRBA	7	0.82	7	0.73	7	0.09	7	0.05	7	0.04	7	0.03
B4615000	NCAMBNT	35	2.51	35	0.72	35	1.80	35	0.03	35	1.76	35	0.40
B4625000	UCFRBA	40	0.65	40	0.38	40	0.27	40	0.03	40	0.24	40	0.06
B4626000	UCFRBA	19	1.46	19	0.99	19	0.48	19	0.06	19	0.42	19	0.08
B4770500	UCFRBA	60	1.42	60	0.52	60	0.90	60	0.15	60	0.75	60	0.21
B4800000	NCAMBNT												
B4800000	UCFRBA	49	1.19	49	0.50	49	0.70	49	0.13	49	0.57	50	0.17
B4850000	UCFRBA	27	0.71	27	0.44	27	0.27	27	0.07	27	0.20	27	0.07
B4870000	UCFRBA	34	0.75	34	0.50	34	0.25	34	0.04	34	0.21	34	0.11
B4890000	NCAMBNT	59	13.33	59	1.04	59	12.29	59	0.22	59	12.07	59	0.91
B4920000	UCFRBA	61	2.76	61	0.61	61	2.14	61	0.11	61	2.03	61	0.26
B5070000	NCAMBNT												
B5070000	UCFRBA	45	1.81	45	0.66	45	1.15	45	0.06	45	1.09	45	0.13
B5100000	UCFRBA	60	1.66	60	0.54	60	1.12	60	0.06	60	1.06	60	0.15
B5131000	NCAMBNT												
B5190000	NCAMBNT	53	1.35	53	0.52	53	0.82	53	0.03	53	0.79	53	0.12
B5390800	UCFRBA	60	4.63	60	0.73	60	3.89	60	0.10	60	3.79	60	0.88
B5480000	NCAMBNT												
B5520000	UCFRBA	60	1.28	60	0.57	60	0.71	60	0.05	60	0.66	60	0.13
B5575000	NCAMBNT	54	1.12	54	0.53	54	0.59	54	0.05	54	0.54	54	0.14
B5575000	UCFRBA	17	2.02	17	0.71	17	1.31	17	0.09	17	1.22	17	0.13
B5685000	UCFRBA												
B5820000	NCAMBNT												
B5820000	UCFRBA	60	1.90	60	0.65	60	1.25	60	0.06	60	1.19	60	0.27
B5950000	UCFRBA	60	1.11	60	0.67	60	0.44	60	0.07	60	0.37	60	0.10
B5980000	UCFRBA	60	9.78	60	0.60	60	9.18	60	0.05	60	9.13	60	0.34
B6000000	NCAMBNT	55	5.76	55	0.71	55	5.05	55	0.02	55	5.03	55	0.17
B6040300	NCAMBNT												
B6040300	UCFRBA	59	1.80	59	0.83	59	0.96	59	0.05	60	0.91	60	0.22



**Table 6b. Summary of Water Quality Parameter Averages (Nutrients cont.)**

Station	Agency	Total Nitrogen (mg/L)		Total Organic Nitrogen (mg/L)		Total Inorganic Nitrogen (mg/L)		NH3 as N (mg/L)		NO2 + NO3 as N (mg/L)		Total Phosphorus (mg/L)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>Entire Basin</b>		<b>2.01</b>		<b>0.66</b>		<b>1.35</b>		<b>0.10</b>		<b>1.24</b>		<b>0.19</b>	
<b>HUC 03030004</b>		<b>1.27</b>		<b>0.56</b>		<b>0.71</b>		<b>0.22</b>		<b>0.49</b>		<b>0.10</b>	
B6130500	MCFRBA	60	0.72	60	0.53	60	0.19	60	0.05	60	0.14	60	0.10
B6160000	MCFRBA	61	1.32	61	0.74	61	0.58	61	0.05	61	0.53	61	0.14
B6160000	NCAMBNT	36	1.27	36	0.66	36	0.61	36	0.05	36	0.57	36	0.15
B6200000	MCFRBA	20	0.76	20	0.60	20	0.16	20	0.07	20	0.10	20	0.09
B6204000	MCFRBA	40	0.46	40	0.33	40	0.12	40	0.04	40	0.08	40	0.05
B6230000	MCFRBA	60	0.72	60	0.36	60	0.36	60	0.03	60	0.33	60	0.05
B6252000	MCFRBA	60	0.95	60	0.49	60	0.46	60	0.04	60	0.42	60	0.13
B6320000	MCFRBA	60	1.66	60	0.51	60	1.16	60	0.08	60	1.08	60	0.29
B6370000	MCFRBA	60	1.31	60	0.68	60	0.62	60	0.04	60	0.58	60	0.12
B6370000	NCAMBNT	53	1.25	53	0.61	53	0.64	53	0.04	53	0.60	53	0.12
B6485000	MCFRBA	60	0.88	60	0.67	60	0.20	60	0.06	60	0.15	60	0.08
B6820050	MCFRBA	6	1.25	6	0.85	6	0.39	6	0.03	6	0.37	6	0.12
B6830000	MCFRBA	60	0.77	60	0.46	60	0.31	60	0.03	60	0.28	60	0.05
B6830000	NCAMBNT	53	0.67	53	0.40	53	0.26	53	0.02	53	0.24	53	0.03
B6840000	MCFRBA	60	1.52	60	0.61	60	0.91	60	0.04	60	0.87	60	0.11
B6840000	NCAMBNT	29	1.20	29	0.55	29	0.65	29	0.04	29	0.61	29	0.13
B7245000	NCAMBNT	53	0.47	53	0.35	53	0.13	53	0.02	53	0.11	53	0.03
B7280000	MCFRBA	54	1.20	54	0.41	54	0.79	54	0.04	54	0.75	54	0.11
B7280000	NCAMBNT	5	0.99	5	0.42	5	0.57	5	0.04	5	0.54	5	0.05
B7300000	MCFRBA	60	1.20	60	0.43	60	0.77	60	0.04	60	0.73	60	0.11
B7319100	MCFRBA	6	1.57	6	0.62	6	0.94	6	0.02	6	0.92	6	0.11
B7480000	MCFRBA	60	1.17	60	0.56	60	0.62	60	0.04	60	0.57	60	0.17
B7500000	MCFRBA	60	1.31	60	0.55	60	0.75	60	0.05	60	0.71	60	0.12
B7546500	MCFRBA												
B7547000	MCFRBA	42	0.58	42	0.31	42	0.27	42	0.05	42	0.22	42	0.03
B7584000	MCFRBA	42	0.79	42	0.33	42	0.47	42	0.11	42	0.36	42	0.05
B7584005	MCFRBA												
B7584800	MCFRBA	42	0.98	42	0.49	42	0.48	42	0.12	42	0.36	42	0.05
B7584900	MCFRBA	40	11.09	40	1.91	40	9.17	40	6.76	40	2.41	40	0.13
B7590000	MCFRBA	60	1.08	60	0.66	60	0.42	60	0.09	60	0.34	60	0.06
B7600000	NCAMBNT	53	1.28	53	0.57	53	0.71	53	0.03	53	0.68	53	0.13
B7679300	MCFRBA	60	0.44	60	0.34	60	0.10	60	0.03	60	0.07	60	0.03
B7700000	MCFRBA	60	1.24	60	0.76	60	0.48	60	0.07	60	0.41	60	0.20
B7700000	NCAMBNT												
B8224000	NCAMBNT	55	0.67	55	0.33	55	0.34	55	0.03	55	0.31	55	0.10
B8230000	MCFRBA	58	1.01	58	0.65	58	0.36	58	0.04	58	0.32	58	0.10

**Table 6b. Summary of Water Quality Parameter Averages (Nutrients cont.)**

Station	Agency	Total Nitrogen (mg/L)		Total Organic Nitrogen (mg/L)		Total Inorganic Nitrogen (mg/L)		NH3 as N (mg/L)		NO2 + NO3 as N (mg/L)		Total Phosphorus (mg/L)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>Entire Basin</b>		<b>2.01</b>		<b>0.66</b>		<b>1.35</b>		<b>0.10</b>		<b>1.24</b>		<b>0.19</b>	
<b>HUC 03030005</b>		<b>1.22</b>		<b>0.63</b>		<b>0.58</b>		<b>0.07</b>		<b>0.51</b>		<b>0.12</b>	
B8290000	MCFRBA	59	1.38	59	0.64	59	0.74	59	0.05	59	0.70	59	0.14
B8300000	NCAMBNT												
B8302000	MCFRBA	58	1.45	58	0.62	58	0.83	58	0.08	58	0.75	58	0.15
B8305000	MCFRBA	59	1.67	59	0.58	59	1.08	59	0.07	59	1.02	59	0.21
B8305000	NCAMBNT												
B8306000	MCFRBA	58	1.63	58	0.55	58	1.07	58	0.07	58	1.01	58	0.21
B8315000	MCFRBA	58	1.28	58	0.88	58	0.41	58	0.06	58	0.34	58	0.10
B8320000	MCFRBA	58	1.68	58	0.61	58	1.06	58	0.07	58	1.00	58	0.21
B8321000	NCAMBNT												
B8339000	MCFRBA	59	1.62	59	0.58	59	1.04	59	0.07	59	0.98	59	0.20
B8340000	NCAMBNT												
B8340050	LCFRP	60	0.96	60	0.71	60	0.25	60	0.05	60	0.20	60	0.10
B8340100	MCFRBA	58	0.80	58	0.68	58	0.12	58	0.04	58	0.08	58	0.07
B8340130	MCFRBA	58	1.58	58	0.58	58	1.00	58	0.06	58	0.94	58	0.19
B8340200	LCFRP	60	0.83	60	0.66	60	0.17	60	0.06	60	0.11	60	0.13
B8340650	MCFRBA	58	1.50	58	0.57	58	0.94	58	0.06	58	0.87	58	0.17
B8348000	MCFRBA	58	1.48	58	0.58	58	0.90	58	0.05	58	0.84	58	0.16
B8349000	MCFRBA	59	1.47	59	0.60	59	0.87	59	0.06	59	0.81	59	0.15
B8350000	NCAMBNT	55	1.46	55	0.59	55	0.87	55	0.05	55	0.82	55	0.17
B8360000	LCFRP	60	1.43	60	0.77	60	0.66	60	0.05	60	0.61	60	0.16
B8360000	NCAMBNT	33	1.36	33	0.56	33	0.80	33	0.05	33	0.75	33	0.16
B8441000	LCFRP	46	1.45	46	0.72	46	0.73	46	0.35	46	0.37	46	0.05
B8441000	NCAMBNT	57	1.15	57	0.60	57	0.55	57	0.25	57	0.30	57	0.06
B8445000	LCFRP	14	1.17	14	0.63	14	0.54	14	0.07	14	0.48	14	0.11
B8450000	LCFRP	60	1.48	60	0.77	60	0.71	60	0.09	60	0.61	60	0.15
B8450000	NCAMBNT	1	1.68	1	0.73	1	0.95	1	0.06	1	0.89	1	0.17
B8465000	LCFRP	60	1.40	60	0.82	60	0.58	60	0.08	60	0.50	60	0.14
B9020000	NCAMBNT	55	1.27	55	0.61	55	0.66	55	0.07	55	0.59	55	0.14
B9030000	LCFRP	60	1.32	60	0.78	60	0.54	60	0.06	60	0.49	60	0.13
B9050000	NCAMBNT												
B9050025	LCFRP	60	1.24	60	0.76	60	0.48	60	0.06	60	0.42	60	0.12
B9050100	LCFRP	60	1.15	60	0.70	60	0.44	60	0.06	60	0.38	60	0.11
B9790000	LCFRP	60	1.09	60	0.66	60	0.43	60	0.06	60	0.37	60	0.10
B9795000	LCFRP	60	1.03	60	0.66	60	0.37	60	0.08	60	0.29	60	0.09
B9800000	LCFRP	60	1.02	60	0.64	60	0.38	60	0.07	60	0.32	60	0.09
B9800000	NCAMBNT												
B9820000	NCAMBNT	55	0.93	55	0.48	55	0.45	55	0.10	55	0.36	55	0.09
B9845100	LCFRP	60	0.98	60	0.68	60	0.30	60	0.06	60	0.24	60	0.07
B9850100	LCFRP	60	0.73	60	0.48	60	0.25	60	0.05	60	0.20	60	0.06
B9910000	LCFRP	60	0.65	60	0.49	60	0.16	60	0.03	60	0.13	60	0.04
B9921000	LCFRP	60	0.49	60	0.36	60	0.13	60	0.03	60	0.10	60	0.04
B9980000	LCFRP	59	0.60	60	0.50	59	0.11	59	0.03	60	0.08	59	0.04

**Table 6b. Summary of Water Quality Parameter Averages (Nutrients cont.)**

Station	Agency	Total Nitrogen (mg/L)		Total Organic Nitrogen (mg/L)		Total Inorganic Nitrogen (mg/L)		NH3 as N (mg/L)		NO2 + NO3 as N (mg/L)		Total Phosphorus (mg/L)	
		N	Mean	N	Mean	N	Mean	N	Mean	N	Mean	N	Mean
<b>Entire Basin</b>		<b>2.01</b>		<b>0.66</b>		<b>1.35</b>		<b>0.10</b>		<b>1.24</b>		<b>0.19</b>	
<b>HUC 03030006</b>		<b>1.07</b>		<b>0.78</b>		<b>0.29</b>		<b>0.04</b>		<b>0.25</b>		<b>0.11</b>	
B8470000	LCFRP	60	0.99	60	0.87	60	0.11	60	0.06	60	0.06	60	0.08
B8490000	NCAMBNT	55	0.91	55	0.67	55	0.24	55	0.03	55	0.21	55	0.07
B8545000	NCAMBNT												
B8580000	NCAMBNT	55	1.08	55	0.90	55	0.17	55	0.04	55	0.13	55	0.10
B8604000	LCFRP	60	1.18	60	0.96	60	0.22	60	0.05	60	0.18	60	0.32
B8610001	LCFRP	60	1.10	60	0.77	60	0.33	60	0.04	60	0.29	60	0.06
B8679500	NCAMBNT	20	0.72	20	0.64	20	0.08	20	0.04	20	0.05	20	0.17
B8725000	NCAMBNT	35	1.46	35	0.71	35	0.75	35	0.07	35	0.68	35	0.14
B8740000	LCFRP	60	1.33	60	0.75	60	0.58	60	0.06	60	0.52	60	0.10
B8750000	NCAMBNT	49	1.21	49	0.63	49	0.57	49	0.05	49	0.53	49	0.13
B8919000	NCAMBNT	55	0.80	55	0.66	55	0.13	55	0.03	55	0.11	55	0.05
B8981000	LCFRP	57	1.13	57	1.00	57	0.12	57	0.06	57	0.06	57	0.06
B9000000	LCFRP	60	0.98	60	0.78	60	0.20	60	0.03	60	0.17	60	0.08
B9013000	NCAMBNT	54	0.99	54	0.62	54	0.37	54	0.04	54	0.33	54	0.10
<b>HUC 03030007</b>		<b>2.17</b>		<b>0.87</b>		<b>1.30</b>		<b>0.07</b>		<b>1.23</b>		<b>0.30</b>	
B9080000	NCAMBNT	2	1.08	2	0.77	2	0.31	2	0.04	2	0.28	2	0.57
B9090000	LCFRP	57	1.31	57	0.88	57	0.43	57	0.07	57	0.37	57	0.24
B9090000	NCAMBNT	53	1.29	53	0.69	53	0.60	53	0.06	53	0.54	53	0.25
B9130000	LCFRP	60	1.50	60	1.03	60	0.47	60	0.09	60	0.38	60	0.19
B9190500	NCAMBNT	58	0.97	58	0.75	58	0.22	58	0.04	58	0.18	58	0.15
B9191000	LCFRP	60	1.12	60	0.98	60	0.14	60	0.07	60	0.07	60	0.20
B9191500	LCFRP	60	1.43	60	1.00	60	0.43	60	0.06	60	0.38	60	0.15
B9196000	NCAMBNT	58	1.20	58	0.74	58	0.46	58	0.03	58	0.43	58	0.14
B9430000	LCFRP	60	1.54	60	0.93	60	0.61	60	0.06	60	0.56	60	0.24
B9460000	LCFRP	59	0.92	59	0.70	59	0.22	59	0.06	59	0.16	59	0.06
B9470000	NCAMBNT	58	2.03	58	0.75	58	1.28	58	0.04	58	1.23	58	0.27
B9480000	NCAMBNT	58	1.24	58	0.72	58	0.52	58	0.04	58	0.48	58	0.15
B9490000	LCFRP	60	1.59	60	1.41	60	0.18	60	0.08	60	0.10	60	0.14
B9490000	NCAMBNT	35	1.50	35	1.19	35	0.31	35	0.15	35	0.16	35	0.19
B9500000	LCFRP	60	1.15	60	0.89	60	0.26	60	0.09	60	0.17	60	0.14
B9520000	LCFRP	60	8.97	60	1.01	60	7.96	60	0.21	60	7.75	60	1.39
B9520000	NCAMBNT	58	11.32	58	0.93	58	10.39	58	0.09	58	10.30	58	1.68
B9550000	NCAMBNT	58	0.88	58	0.82	58	0.06	58	0.04	58	0.02	58	0.05
B9580000	LCFRP	60	1.03	60	0.77	60	0.26	60	0.04	60	0.22	60	0.10
B9580000	NCAMBNT												
B9670000	LCFRP	60	1.06	60	0.80	60	0.26	60	0.04	60	0.22	60	0.10
B9720000	LCFRP												
B9740000	NCAMBNT	55	0.99	55	0.55	55	0.44	55	0.10	55	0.34	55	0.10

Notes: Empty rows indicate that no samples were collected for that parameter at that station.  
 The means displayed in this table are arithmetic means, except for fecal coliform, which is a geometric mean.

## ASSESSMENT AND INTERPRETATION METHODS

Monitoring and sampling results considered in this report represent samples collected or measurements taken at less than one-meter depth.

Percentile statistics were calculated for most of the data using JMP statistical software (version 5.01; SAS Institute, Cary, NC). Values less than the minimum reporting level (non-detects) were evaluated as equal to the reporting level. Box and whisker plots (constructed using SigmaPlot version 9) and maps are presented for most water quality parameters collected at each monitoring station. Significant trends in water quality parameters (constructed using Microsoft Excel) are illustrated as scatterplots. Significant trends are found by assessing the probability that the linear model explains the data no better than chance. If that chance is 5% or less (an observed significance probability of 0.05 or less) then that is considered evidence of a regression effect in this document. The strength of the regression effect is given as an  $r^2$  value, the portion of the data that is explained by the linear model. There are many other types of modeling (non-linear) that can be used to explore trends, but they were not used in this document.

### Assessment Considerations

#### Total Metals

The North Carolina Division of Water Quality is currently reviewing water quality standards for metals. Review of historical total metals data and biological data has shown that no correlation exists between exceedance of total metals ambient standards and biological impairment. Therefore, as of May 2007 DWQ has suspended collection of total metals at AMS stations.

#### Chlorophyll a

During this assessment period the DWQ Laboratory Section noted that chlorophyll a samples collected between 4/11/05 and 8/23/05 were incorrectly prepared for analysis, to the extent that the accuracy of the results is unknown. Therefore, the chlorophyll a results for this period were omitted from the dataset.

### Providing Confidence in the Exceedance of Water Quality Standards

Historically, NC DWQ has used guidance provided by the US EPA for determining when the number of results that exceed a water quality standard indicate potential water quality issues. The US EPA has suggested that management actions be implemented when 10 percent of the results exceeded a water quality standard. This interpretation is the same whether 1 out of 10, or 5 out of 50, or 25 out of 250 results exceed a standard. Evaluating exceedances in this manner is termed the “raw-score” approach. Although this “10 percent exceedance criterion” defines a point where potential water quality issues may be present, it does not consider uncertainty. Some results are subject to chance or other factors such as calibration errors or sample mishandling. Uncertainty levels change with sample size. The smaller the sample size, the greater the uncertainty.

This document uses a nonparametric procedure (Lin *et al.* 2000) to identify when a sufficient number of exceedances have occurred that indicate a true exceedance probability of 10 percent. Calculating the minimum number of exceedances needed for a particular sample size was done using the BINOMDIST function in Microsoft Excel<sup>®</sup>. This statistical function suggests that at least three exceedances need to be observed in a sample of 10 in order to be [about] 95 percent confident that the results statistically exceed the water quality standard more than 10% of the time. For example, there is less statistical confidence associated with a 1 exceedance out of 10 (74 percent) than when there are 3 exceedances out of 10 (99 percent confidence) (**Table 7**).

**Table 7. Exceedance Confidence**

Number of Samples	Number of Exceedances																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
10	74%	93%	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>							
12	66%	89%	<b>97%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>					
14	58%	84%	<b>96%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>			
16	51%	79%	93%	<b>98%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	
18	45%	73%	90%	<b>97%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
20	39%	68%	87%	<b>96%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
22	34%	62%	83%	94%	<b>98%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
24	29%	56%	79%	91%	<b>97%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
26	25%	51%	74%	89%	<b>96%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
28	22%	46%	69%	86%	94%	<b>98%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
30	18%	41%	65%	82%	93%	<b>97%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
32	16%	37%	60%	79%	91%	<b>96%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
34	13%	33%	55%	75%	88%	<b>95%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
36	11%	29%	51%	71%	85%	94%	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
38	10%	25%	46%	67%	83%	92%	<b>97%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
40	8%	22%	42%	63%	79%	90%	<b>96%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
42	7%	20%	38%	59%	76%	88%	<b>95%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
44	6%	17%	35%	55%	73%	85%	93%	<b>97%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
46	5%	15%	31%	51%	69%	83%	92%	<b>96%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
48	4%	13%	28%	47%	65%	80%	90%	<b>95%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
50	3%	11%	25%	43%	62%	77%	88%	94%	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
52	3%	10%	22%	40%	58%	74%	86%	93%	<b>97%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
54	2%	8%	20%	36%	54%	71%	83%	91%	<b>96%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
56	2%	7%	18%	33%	51%	67%	81%	90%	<b>95%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
58	2%	6%	16%	30%	47%	64%	78%	88%	94%	<b>97%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
60	1%	5%	14%	27%	44%	61%	75%	86%	93%	<b>97%</b>	<b>99%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
62	1%	5%	12%	24%	40%	57%	72%	84%	91%	<b>96%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
64	1%	4%	11%	22%	37%	54%	69%	81%	90%	<b>95%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
66	1%	3%	9%	20%	34%	51%	66%	79%	88%	94%	<b>97%</b>	<b>99%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
68	1%	3%	8%	18%	31%	47%	63%	76%	86%	93%	<b>96%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
70	1%	2%	7%	16%	29%	44%	60%	74%	84%	91%	<b>96%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
72	0%	2%	6%	14%	26%	41%	57%	71%	82%	90%	<b>95%</b>	<b>97%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
74	0%	2%	5%	13%	24%	38%	54%	68%	80%	88%	94%	<b>97%</b>	<b>99%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
76	0%	1%	5%	11%	22%	35%	51%	65%	77%	86%	93%	<b>96%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
78	0%	1%	4%	10%	20%	33%	48%	62%	75%	85%	91%	<b>95%</b>	<b>98%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
80	0%	1%	4%	9%	18%	30%	45%	59%	72%	83%	90%	<b>95%</b>	<b>97%</b>	<b>99%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>

Note: Bold entries indicate that there is at least 95% confidence that at least 10% of the possible samples exceed the evaluation level.

## Methods Used to Summarize Results

Methods used to summarize the results in this report encompass both tabular and graphical formats. Box and whisker plots, scatterplots, and maps were used to depict data for a variety of water quality parameters throughout the basin. For the box plots, stations with fewer than 10 data points for a given parameter were not included. This occasionally occurred when a new station was added, an old station was removed, or a station was moved to a new location in the basin.

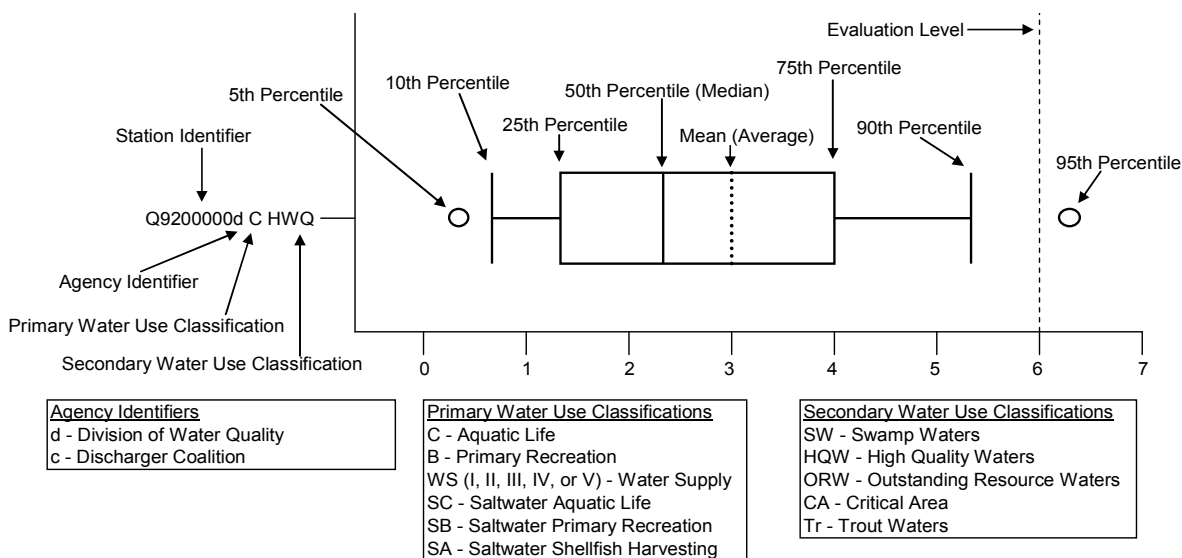
Individual station summary sheets provide details on station location, stream classification, along with specifics on what parameters were measured, the number of samples taken (i.e. sample size), the number of results below reporting levels, the number of results exceeding a water quality standard or evaluation level, statistical confidence that 10% of results exceeded the evaluation level, and a general overview of the distribution of the results using percentiles. These station summary sheets provide the greatest details on a station-by-station basis. They are included as **Appendix A** to this report.

The results were depicted in the following ways:

- Comparing stations – box plots
- Assessing stations – tables
- Comparing hydrologic units – box plots
- Illustrating trends - scatterplots
- Illustrating regional variation – maps

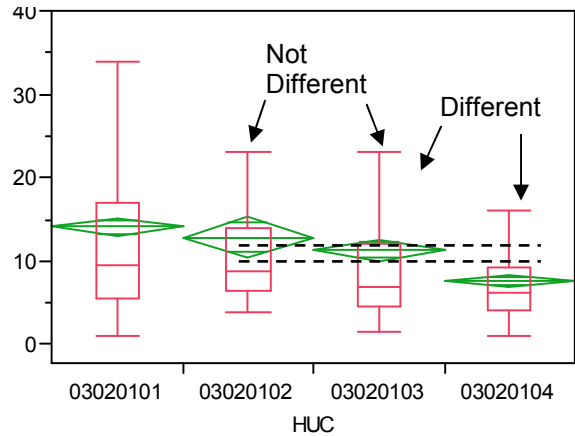
## Box and Whisker Plots

The primary method of analyzing data in this report is through the use of box and whisker plots. **Figure 3** is an annotated example of a box and whisker plot that illustrates the distribution of the results for a particular parameter at a single site. This box plot contains both the median and mean values. Differences between the median and mean can illustrate the distribution of the results. For example, if the mean is considerably larger than the median, then there are likely a few very high concentrations raising the mean. Another useful measure is to compare the 90<sup>th</sup> percentile against the evaluation level. For most parameters, 10% exceedance of the evaluation levels is considered a violation. Therefore the 90<sup>th</sup> (or 10<sup>th</sup> in the case of minimum evaluation levels) percentile exceeding the evaluation level is an equivalent statement.



**Figure 3. An Example Box Plot for a Station**

**Figure 4** is an example of a box and whisker plot that is comparing four HUCs for a single parameter. In this case the box plots are vertical instead of horizontal. A “mean diamond” is present on each. The center line of each diamond is the average. The short lines above and below the center are called “overlap marks” and represent a 95% confidence interval for the mean. To compare means, extend the overlap marks as shown in the figure. If the overlap mark of one diamond is closest to the mean line of another diamond then the two averages are not significantly different. If the overlap line is closer to the other diamond’s overlap mark, then they are significantly different.

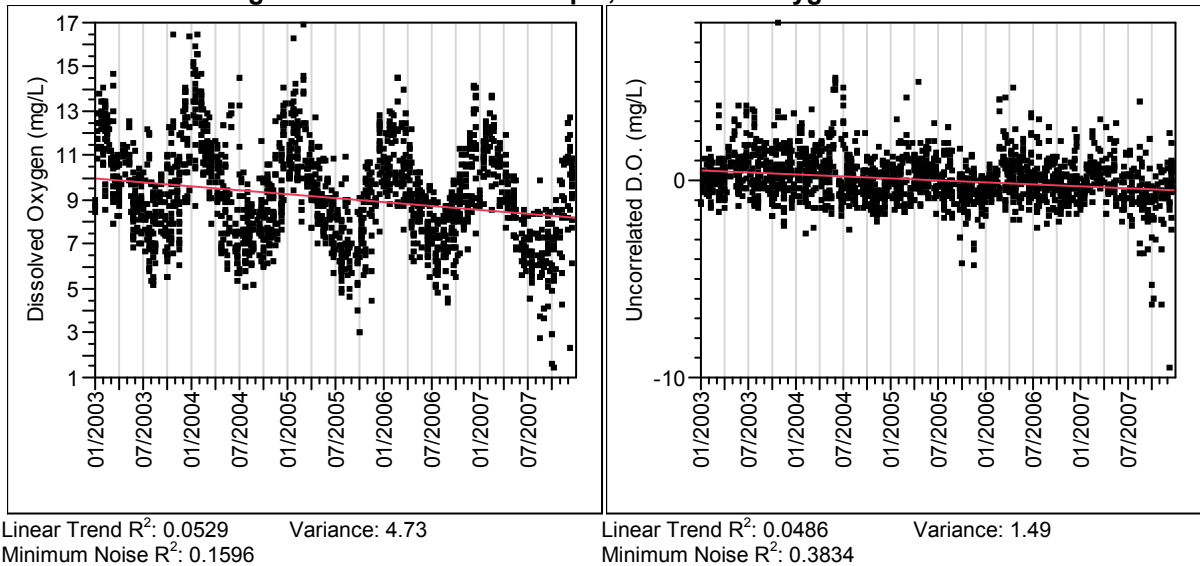


**Figure 4. A Box Plot for Comparing HUCs**

### Scatter Plots – Change Over Time

Change over time trends are illustrated in scatterplots. If there is at least 95% confidence that a particular linear trend explains the data better than chance (Prob > F of 0.05 or less) then that linear trend was included on the graph. Note that this is different from the  $r^2$ . The percentage of variance explained by the linear model ( $r^2$  value) is displayed for each trend. Occasionally other effects can give the appearance of a trend. This is most common when the number of samples is high and the correlation is small. In the example below on the right, drought events in 2005 and 2007 may be responsible for the slight trend present in the data.

**Figure 5. Scatter Plot Example, Dissolved Oxygen over Time**



In the example above, two types of change over time graphs are shown. The left graph shows *raw* dissolved oxygen results over time. The Linear Trend  $R^2$  value estimates how much of the variation in the results can be explained by the linear trend, in this case only about 5%. The Minimum Noise  $R^2$  is the amount of variation that definitely cannot be explained by variation over time. This is based on the variation that can be found in results from a single day, such as the variation between sites. This is likely an underestimate of noise in most cases. The greater the noise, the less likely there is a trend that has not been captured.

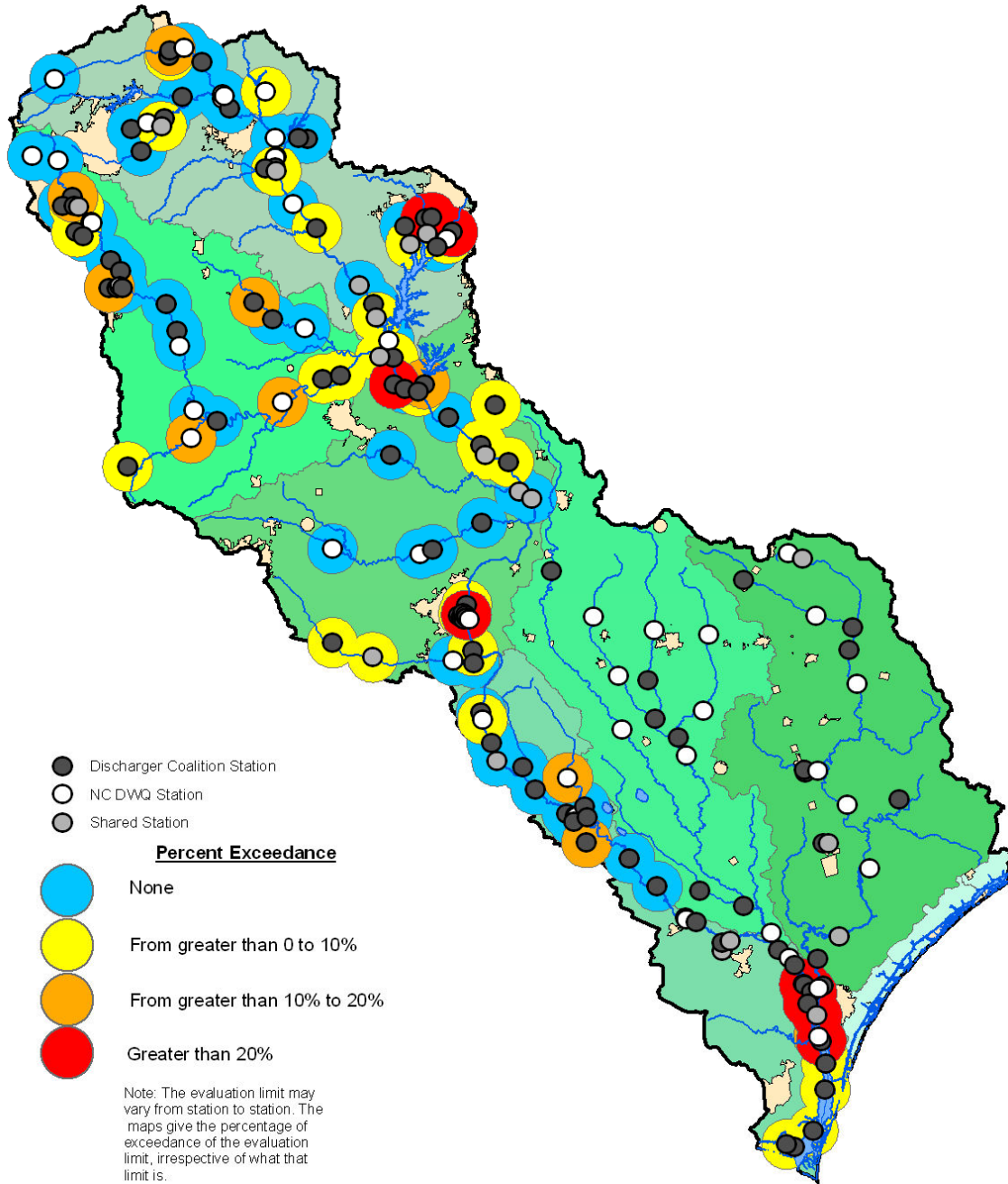
When helpful/possible, seasonal or other cyclical variation has been removed from the data via regression so that trends can be seen more easily. The graph on the left shows more variation within each year than there is between years. The variance is 4.73 mg/L. In the graph on the right, all variation that correlates to variation in water temperature

has been removed via linear regression. This reduces the variance by over half to 1.49 mg/L. Then it becomes clear visually that there are no strong temporal trends in the dissolved oxygen data that cannot be explained by changes in temperature.

### Maps

Maps are used to display data for the whole basin at once, so that the relationship of stations to each other can be seen, and regional patterns become clear. The colors signify the degree of exceedance at each location.

Figure 6. Example Map



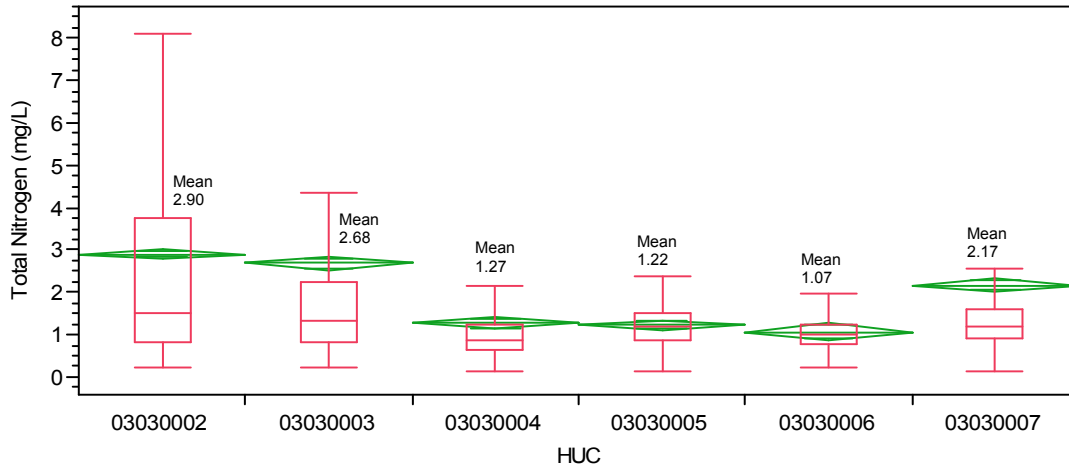


# WATER QUALITY ANALYSIS

## Comparing Hydrologic Regions

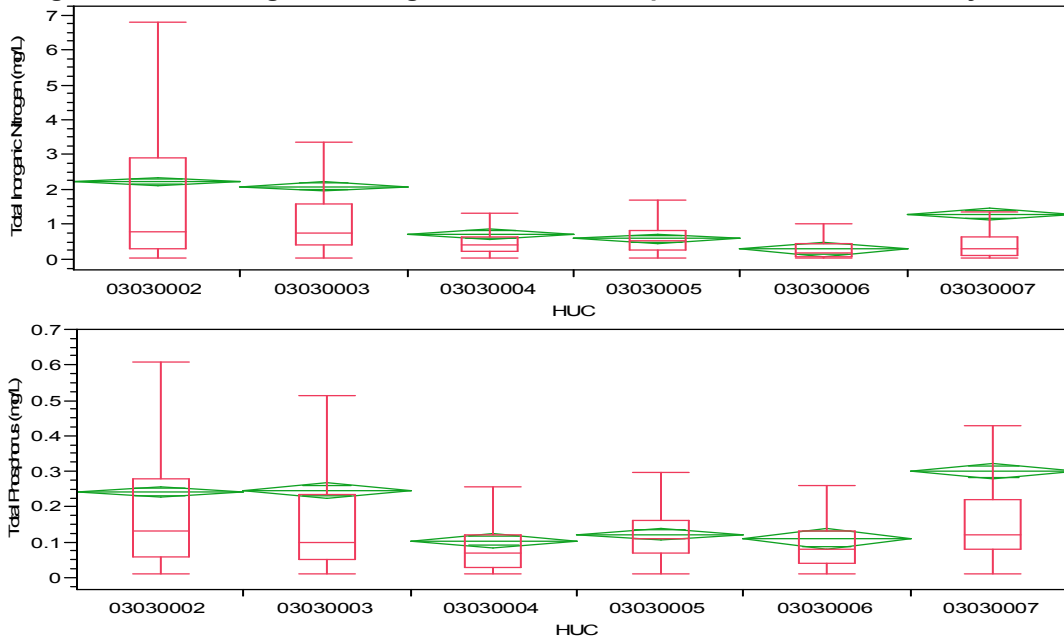
Comparisons between the six hydrologic units codes (HUCs) are illustrated with box and whisker plots. For each box plot, the data for each station in the HUC is composited. For HUC locations, refer to **Figure 2**, and **Table 4**. Refer to **Figure 3** and **Figure 4** for a description of box and whisker plots. In the following discussion, each HUC may be referred to by its last two digits, e.g. HUC 03030002 is HUC02.

**Figure 7. Total Nitrogen Concentration by HUC**



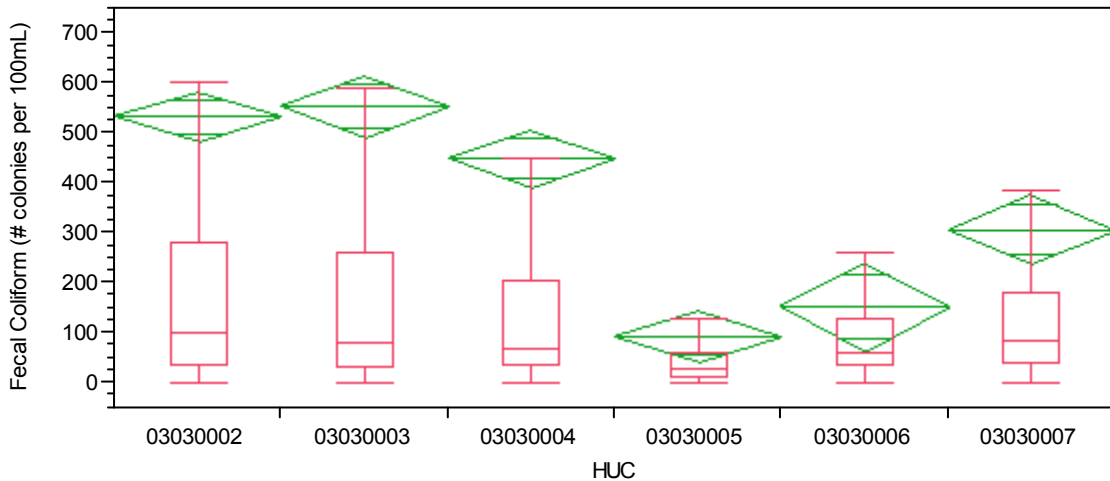
Note that for several of the HUs, the mean (green diamond) is well above the median (middle red line in the box plot). This is caused by having a few concentration spikes much higher than what is most common. Total Nitrogen means appear to be elevated in HUC02, HUC03, and HUC07 compared to the rest of the basin. Each of these three HUs includes a few stations on relatively small streams downstream of wastewater treatment plants. By the time these waters with high concentrations have reached the main stem Cape Fear River, dilution has reduced the average to that found in HUC04 and HUC05. The box plots for total phosphorus and total inorganic nitrogen look very similar (**Figure 8**).

**Figure 8. Total Inorganic Nitrogen and Total Phosphorus Concentrations by HUC**



Inorganic Nitrogen and total Phosphorus are commonly correlated with population and/or livestock centers. Nitrogen and phosphorus are ingredients in fertilizer, and are also found in wastewater effluent. Therefore agriculture, urban, and suburban areas will tend to have higher nitrogen and phosphorus concentrations than undeveloped areas. As stated before, there are several wastewater treatment plants in the Cape Fear River basin, which account for most of the high concentrations found here.

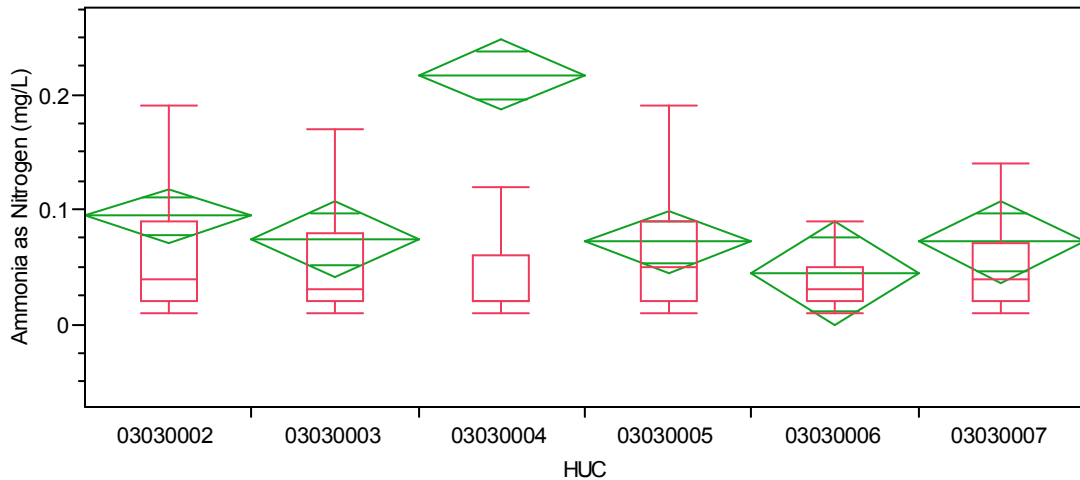
**Figure 9. Fecal Coliform by HUC**



As in **Figure 7**, for fecal coliform the averages are well above the medians. This means that there have been several very high fecal counts, which raises the average, but not enough high counts to raise the median. Fecal coliform is a highly variable parameter. High spikes of fecal coliform counts are often caused by rainfall events.

Average concentrations of fecal coliform are significantly higher in HUC02, HUC03, and HUC04. Sources of fecal coliform include surface runoff from urban areas, livestock operations, and residential areas. Sources also include sewer overflows, failed septic tanks, or malfunctioning wastewater treatment plants. Fecal coliform may also already be in the stream sediment, and be stirred up by heavy flow. Each of these HUs have large cities such as Greensboro, Durham, and Fayetteville in the drainage area. Surface runoff from these cities are likely the reason for the high averages. HUC07 is also being affected by urban runoff to a lesser extent, from smaller towns like Burgaw.

**Figure 10. Ammonia as Nitrogen by HUC**



HUC04 has an average concentration of ammonia more than twice that of the other HUCs. This is entirely due to a single station B7584900, "UT to Cross Creek at Cross Creek Wastewater Treatment Plant in Fayetteville". However, this station is located upstream of the treatment plant's discharge on a small unnamed tributary, and does not appear to be impacted by the Wastewater Treatment Plant. There are no known dischargers in this stream. It may be impacted by industry in the area.

## Comparing Agencies

DWQ and the three discharger coalitions share 28 monitoring sites in the Cape Fear basin specifically chosen to create an opportunity to compare datasets. In order to display the data comparably, several alterations of the data were necessary. First, any month that contained more than one data point for a given site and parameter was averaged into a single monthly average. Next any month that did not have data for both DWQ and the coalitions was removed. This created a data set that was equally distributed between DWQ and the coalitions. The number of samples for comparison ranged from 968 for ammonia, to 1,604 for temperature.

Ten parameters (fecal coliform, specific conductance, turbidity, pH, dissolved oxygen, temperature, ammonia, total kjeldahl nitrogen, total nitrates and nitrites, and total phosphorus) were compared using 4 methods, the Wilcoxon test, the median test, the Van der Waerden test, and a t-test. For five of the parameters (temperature, dissolved oxygen, turbidity, total phosphorus, and total kjeldahl nitrogen) all four tests agreed that there was no significant difference between NC DWQ and coalition results. For specific conductance and ammonia, three of four tests agreed that there was no significant difference between DWQ and coalition results. Two of four tests found Total nitrates to be significantly different between DWQ and coalition results. Three tests found fecal coliform to be different, and all four agreed that pH from DWQ and the coalitions were significantly different. These results are summarized in **Table 8**.

**Table 8. Summary of Differences Between DWQ and Coalition Results**

Parameter	# Statistical Tests with No Significant Difference	# Statistical Tests with Significant Difference	Average Difference
Temperature	4	0	0.01 degrees
Dissolved Oxygen	4	0	0.16 mg/L
Turbidity	4	0	0.57 NTU
Total Kjeldahl Nitrogen	4	0	0.022 mg/L
Total Phosphorus	4	0	0.06 mg/L
Ammonia	3	1	0.042 mg/L
Specific Conductance	3	1	27 umhos/cm
Total Nitrates and Nitrites	2	2	0.45 mg/L
Fecal Coliform	1	3	242 colonies per 100 mL
pH	0	4	0.1 SU

All four tests agreed that pH was significantly different. The average difference between DWQ and coalitions was small, only 0.1 SU. Therefore this difference does not appear to represent any ecological concern, but may represent a difference in equipment brands and maintenance techniques for pH probes. Total Nitrates and Nitrites differed by an average of 0.45 mg/L, which also does not appear to be of much ecological concern, especially given that the tests were split over the significance of this.

For fecal coliform, the difference between DWQ and the coalitions appears to be large and significant, however. DWQ fecal results averaged 250, while coalitions averaged 492. Fecal coliform is a highly variable parameter. Because of this North Carolina uses the geometric mean as an assessment tool for fecal coliform. Analysis of the data log transformed, which is the same as using geometric means, came up with the same results of significant difference. When the data was analyzed on a per station basis, coalition and DWQ data was NOT significantly different. However, for all stations, the average fecal coliform count was greater for coalition results than for DWQ results. This indicates that there is some small systemic bias between DWQ and Coalition results for fecal coliform. There are many possible causes for this. One potential cause is variance in travel time from sampling to laboratory. DWQ fecal screening samples typically take longer to reach the lab, which can reduce fecal coliform counts. Other potential sources of difference are laboratory differences and sampling protocol differences. Given the natural variability of the data, both sets of data are considered accurate, but they are kept separate when assessed.

## 10-Year Trends

Analysis of change over time was assessed using linear regression of ten years of data. The data were reduced to annual averages for each station, to make the data more manageable in scope. Linear regression was used to search for trends in the river basin as a whole, as well as in each of the six HUs.

Trends in the Cape Fear River Basin

For the eleven parameters tested, only two were found to have statistically significant trends (a Prob > F of less than 0.05) over the whole basin, temperature and total phosphorus. Water temperature was found to be increasing at an average rate of 0.68 °C per year. Water temperature is highly correlated with air temperature, however there are no clear trends in air temperature for that period. Another potential cause could be a loss of vegetation surrounding water bodies. Total phosphorus was found to be decreasing at a rate of approximately 0.009 mg/L per year. This reductions could represent a reduction in inputs, or it may be related to flow changes. Effects caused by flow were not assessed for this report.

Trends in the Cape Fear River Basin Hydrologic Units

Many more trends were apparent when viewed at the HU level. The following table summarizes the average rate of change (per year) for each trend.

**Table 9. Summary of Trends**

<i>Parameter</i>	<i>03030002</i>	<i>03030003</i>	<i>03030004</i>	<i>03030005</i>	<i>03030006</i>	<i>03030007</i>
<b>Temperature</b>	No Trend	No Trend	No Trend	↑ +0.147 °C	No Trend	↑ +0.120 °C
<b>Dissolved Oxygen</b>	↑ +0.092 mg/L	↑ +0.056 mg/L	No Trend	↓ -0.048 mg/L	No Trend	No Trend
<b>pH</b>	↑ 0.026 mg/L	No Trend	No Trend	No Trend	No Trend	No Trend
<b>Specific Conductance</b>	No Trend	↓ -13.82 umhos/cm	No Trend	No Trend	↑ +3.11 umhos/cm	No Trend
<b>Chlorophyll a</b>	No Trend	↓ -2.31 ug/L	No Trend	No Trend	No Trend	No Trend
<b>Fecal Coliform</b>	↓ -34.7 col/100mL	↓ -62.65 col/100mL	↑ +32.4 col/100mL	No Trend	↑ +12.6 col/100mL	↑ +34.8 col/100mL
<b>Ammonia</b>	↓ -0.023 mg/L	↓ -0.033 mg/L	No Trend	No Trend	↓ -0.011 mg/L	↓ -0.010 mg/L
<b>Total Nitrates and Nitrites</b>	No Trend	No Trend	No Trend	↓ -0.030 mg/L	No Trend	No Trend
<b>Total Kjeldahl Nitrogen</b>	↓ -0.029 mg/L	↓ -0.044 mg/L	↑ +0.05 mg/L	↑ +0.031 mg/L	↑ +0.020 mg/L	↑ +0.024 mg/L
<b>Total Phosphorus</b>	No Trend	↓ -0.05 mg/L	↓ -0.007 mg/L	↓ 0.010 mg/L	No Trend	No Trend

Note: The dissolved Oxygen trends displayed here are independent of changes in water temperature, via regression of dissolved oxygen and temperature. The nutrient trends displayed here are trends in concentration only. No loading analysis was done.

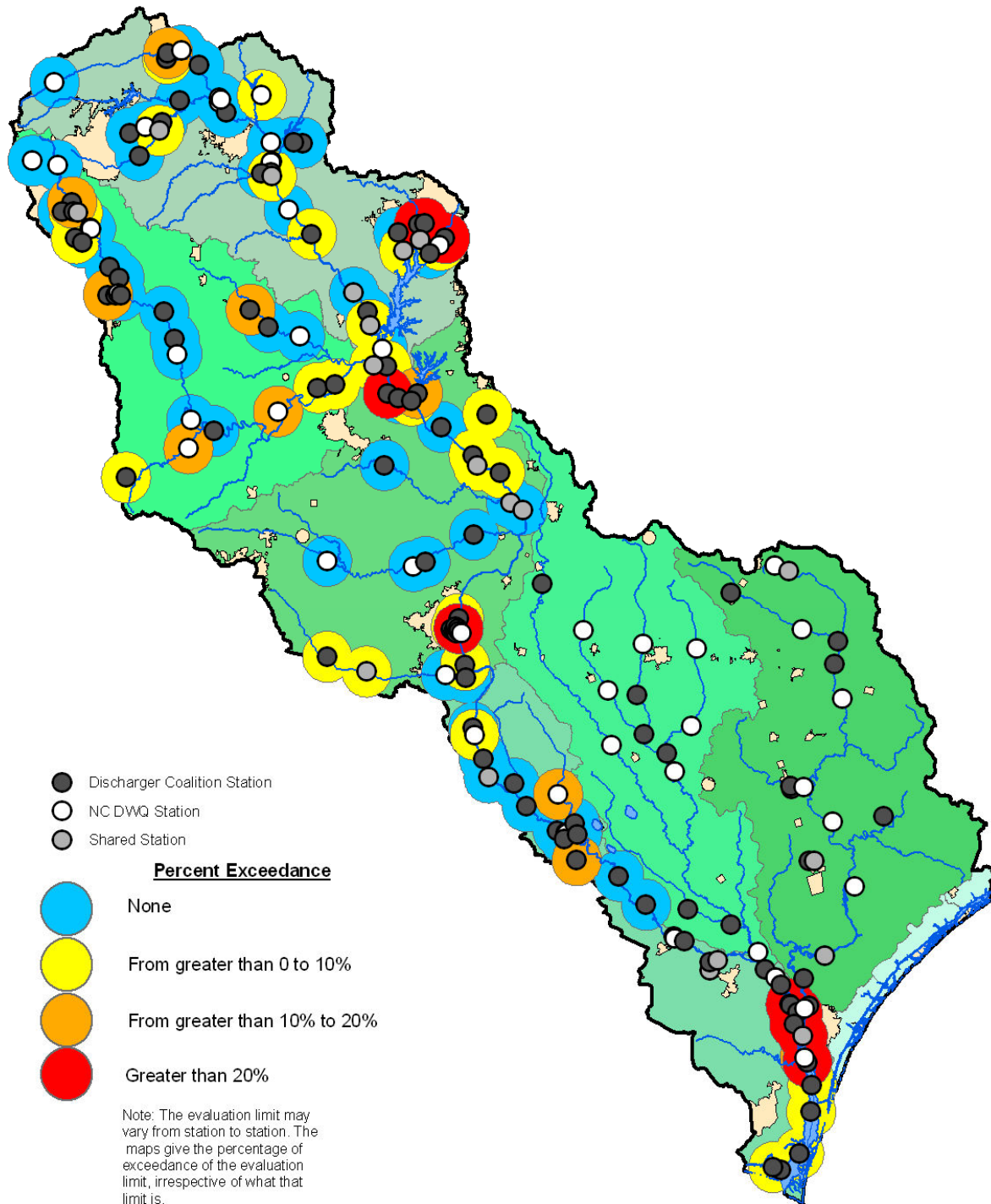
Based on these trends, the following summary statements are made:

- HU 03030002: Reductions in nutrients and fecal coliform suggest IMPROVING conditions. Changes in dissolved oxygen and pH at the levels indicated is a neutral indicator, given that the conditions are near normal.
- HU 03030003: Reductions in nutrients, fecal coliform, chlorophyll a, and specific conductance suggest IMPROVING conditions. Changes in dissolved oxygen at the levels indicated are a neutral indicator, given that the conditions are near normal.
- HU 03030004: Increases in fecal coliform suggest WORSENING conditions. Nutrient data is inconclusive. Total kjeldahl nitrogen (TKN) trends may be due to addition of a single station in 2005, and total phosphorus data shows slight reductions.
- HU 03030005: A drop in dissolved oxygen and an increase in TKN suggest WORSENING conditions. Nitrate and phosphorus data is inconclusive, as the drops are coupled with an increase in kjeldahl nitrogen, which may suggest an increase in algae.
- HU 03030006: Increases in specific conductance, fecal coliform, and TKN suggest WORSENING conditions. Reductions in ammonia are inconclusive when taken together with increases in TKN. Fecal coliform levels, though increasing, are still lower here than in other areas of the basin.
- HU 03030007: Increases in fecal coliform and TKN suggest WORSENING conditions. Reductions in ammonia are inconclusive when taken together with increases in TKN.

Please note that this analysis includes only stream and river data, not lake data. Trends in lakes may differ significantly from trends at river stations.

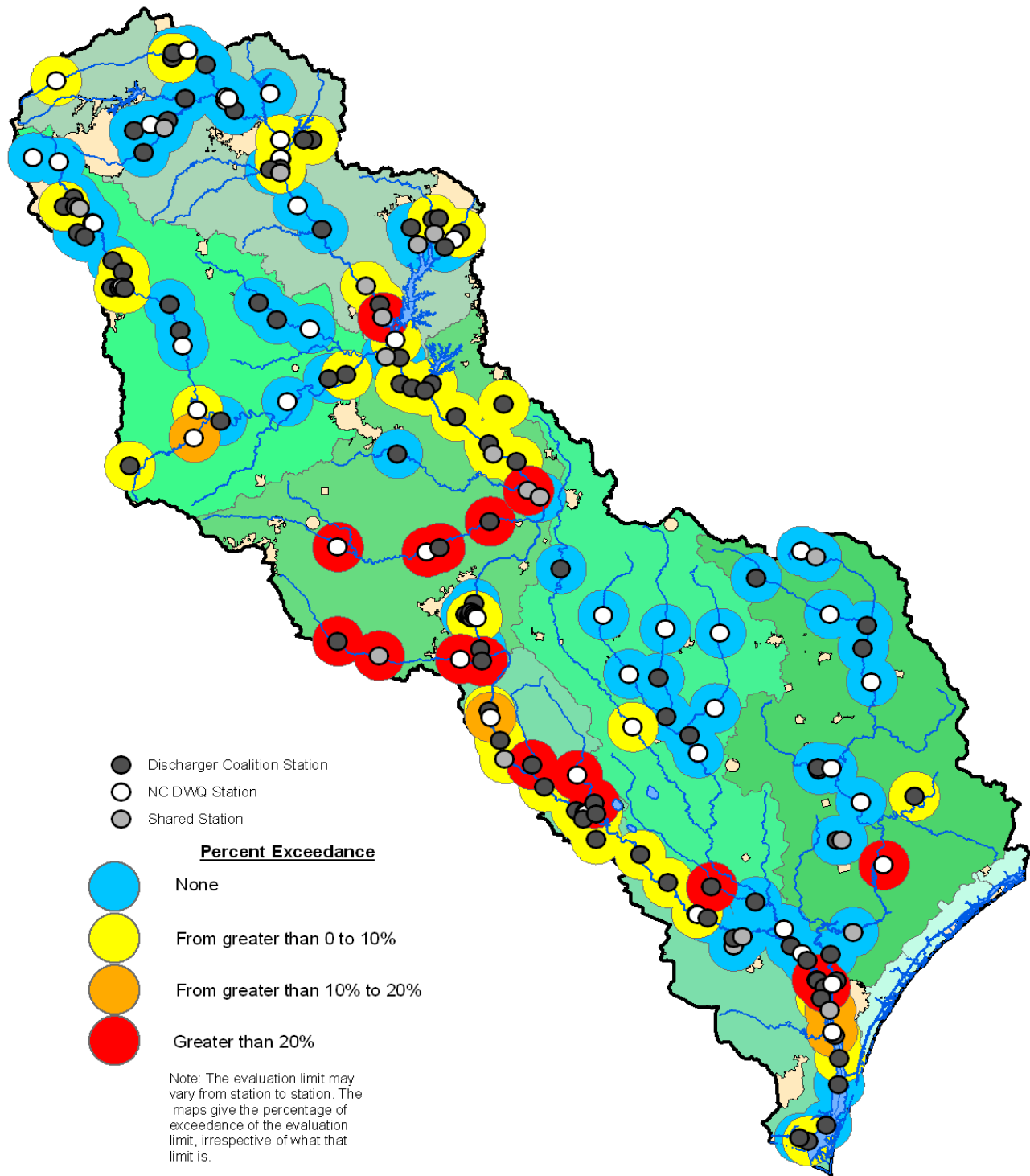
## Geographic Assessment

Figure 11. Dissolved Oxygen in the Cape Fear River Basin



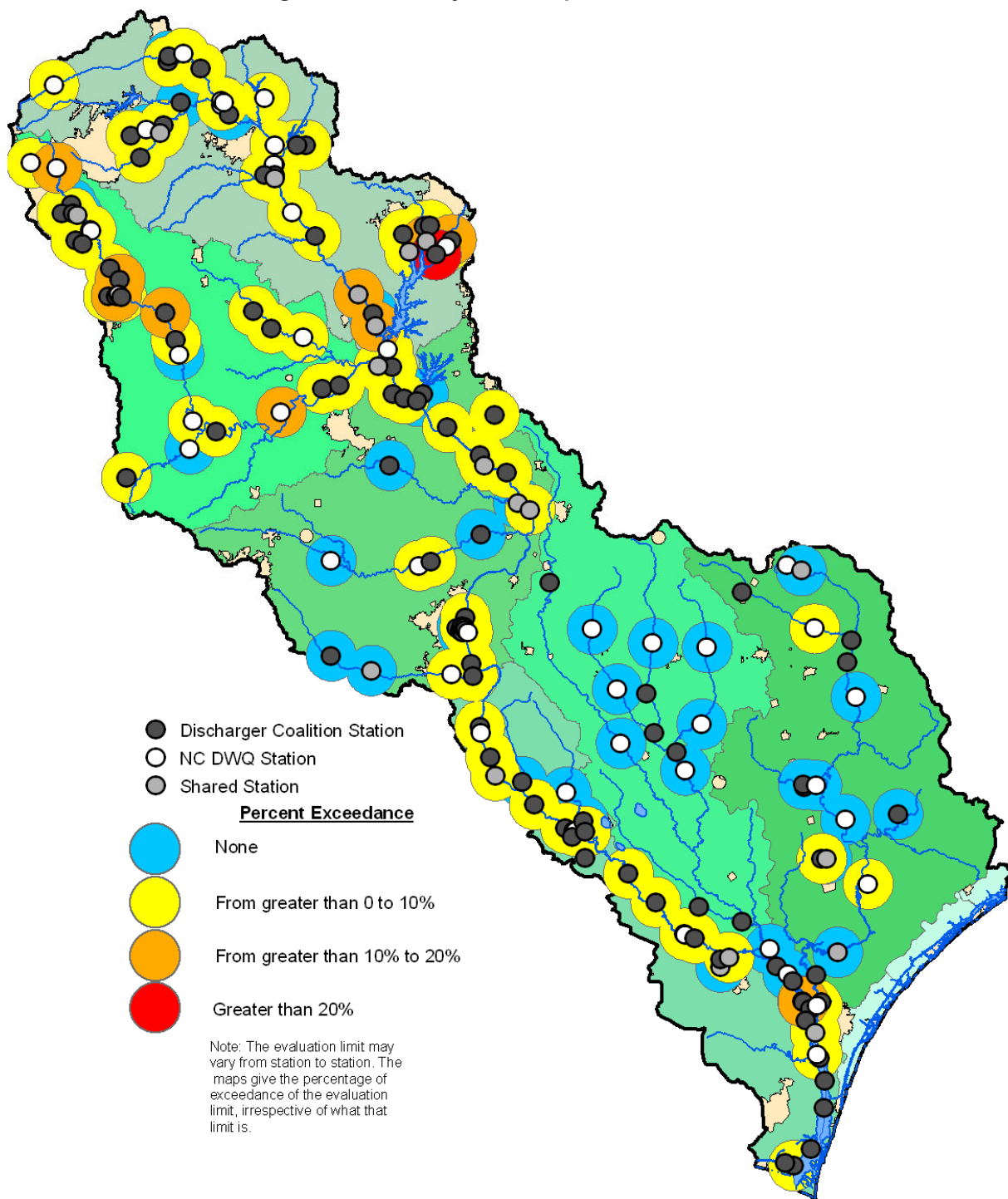
Problems with dissolved oxygen are scattered throughout the basin. Areas of particular interest are the Durham/Chapel Hill, Fayetteville, Corinth, and Wilmington areas. The Wilmington area is downstream of a large system of swamps (the Black River HU and the Northeast Cape Fear HU) and thus low dissolved oxygen may be naturally occurring.

Figure 12. pH in the Cape Fear River Basin



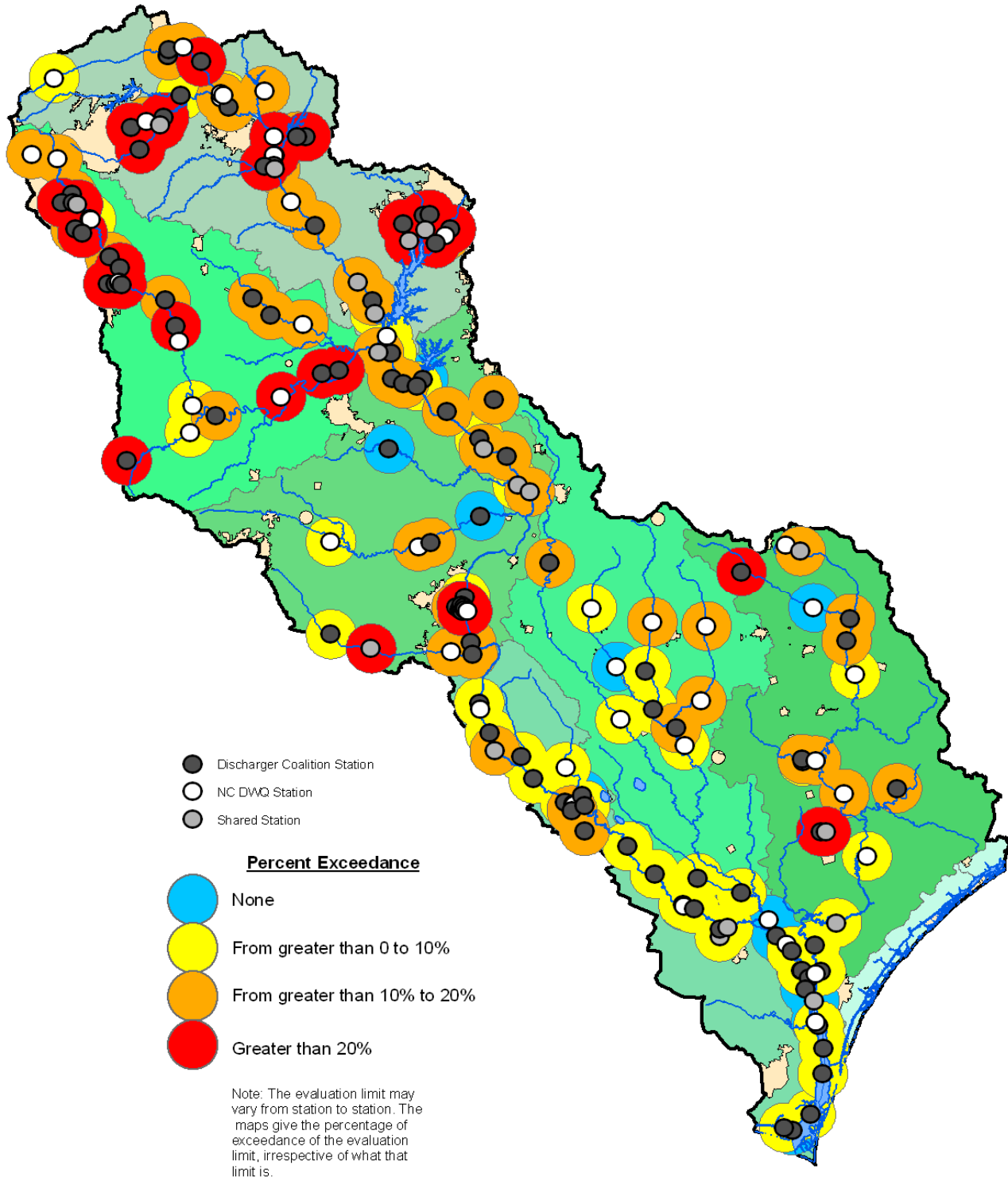
There appear to be low pH problems in several tributaries to the Cape Fear River, such as the Little River, Rock Fish Creek, Harrison Creek, and Turnbull Creek. Natural sources, such as swamp water, can cause low pH. Other possible causes include high concentrations of dissolved metals. USGS Topographic maps indicate that there may be swamp in some of these areas, despite the lack of a “swamp water” classification.

Figure 13. Turbidity in the Cape Fear River Basin



Major issues with Turbidity are not widespread in the basin. The abundance of exceedances below 10% can be caused by a few high flow events, such as rainstorms stirring up streambed sediment, and causing new sediment to be washed into the stream. Areas with insufficient vegetative buffers around streams (urban areas, areas with construction) are particularly vulnerable.

Figure 14. Fecal Coliform in the Cape Fear River Basin



High fecal coliform counts are nearly ubiquitous throughout the river basin. The highest incidence of exceedance appears to be focused in the northern portion of the basin, in the Deep River and Haw River HUs. Fecal Coliform are typically related to stormwater runoff from urban, suburban, or agricultural areas, but can also indicate problems with sewer or septic systems.



## **Significant Issues**

Significant issues in the basin are discussed in this section. Information on other parameters or other stations can be found in **Appendix A** (station summary sheets) and **Appendix B** (box plots). Box plots were constructed for each of the following parameters: water temperature, dissolved oxygen, pH, specific conductance, turbidity, fecal coliform, ammonia, total kjeldahl nitrogen, total nitrates and nitrites, and total phosphorus.

### **Fecal Coliform**

Sources of fecal coliform include surface runoff from livestock operations, residential areas, and urban areas. Sources also include sewer overflows, failed septic tanks, or malfunctioning wastewater treatment plants. Fecal coliform may also already be in the stream sediment, and be stirred up by heavy flow.

Fecal coliform results are screened using annual summaries of ambient sampling results. When the screenings indicate that the standard may have been violated, the standard is assessed by collecting five samples within 30 days. Priority for assessment of the standard is given to waters with Class B (recreational) uses. Some Class B waters in the Cape Fear River basin have exceeded the fecal coliform evaluation level and have been assessed for compliance with the standard. Based on the screening results, one station was assessed for compliance with the standard from 2004 to 2008. This station (B7700000) did not violate the standard. B7700000 was tested in June of 2005, and then again in June and July of 2008. In each case, none of the samples collected exceeded the standard of 400 colonies per 100 mL.

Thirty-nine stations out of 197, or 20% of stations exceeded the screening evaluation limit of 400 colonies per 100 mL over 20% of the time (see **Table 5**). Seventeen of them also exceeded a fecal coliform geomean 200 colonies per 100mL (see **Table 6**). Seventeen of those stations are also considered to have SSEs.

### **pH**

The second most common exceedance of evaluation limits is for pH. Twenty-five out of 197 (13%) in the basin have exceeded the evaluation level more than 10% of the time. Twenty of these are considered SSEs. The two areas of most concern are the Little River and Rockfish Creek, which together account for 10 of the 25 impacted stations and nine of the 20 SSEs. These two water bodies together drain most of the Fort Bragg military reservation. Metal from artillery and firing ranges is a potential source of low pH water; therefore it is a potential cause here. The source may also be natural as there are swamps in the area. Areas designated as swamp must meet a lower, less stringent pH standard of 4.3 SU. Despite this, there are two swamp stations that still exceeded the evaluation limit, B8981000 and B9550000. This may indicate impacts in these areas.

### **Dissolved Oxygen**

Twenty-two out of 197 (11%) stations in the basin have exceeded the evaluation level for dissolved oxygen over the five-year time period more than 10% of the time. Low dissolved oxygen can be caused by high water temperature, lack of sunlight (preventing plants from photosynthesizing), or lack of sources, such as turbulent waters. Overabundance of algae or aquatic vegetation on the surface of a stream can cut off light to deeper water, and cause dangerously low oxygen levels for fish and other aquatic animals. Swamps often naturally have low dissolved oxygen levels and are not evaluated for dissolved oxygen.

For a stretch of the Cape Fear River from Navassa to Channel Marker 61 in Wilmington, low dissolved oxygen is an issue of note. The Cape Fear River in this area is not classified as swamp. But in this stretch are the mouths of the Black River and the Northeast Cape Fear River. Both of those river systems contain large areas of swamp. Seven stations in this stretch of the Cape Fear have SSEs for dissolved oxygen. The low dissolved oxygen of the Wilmington area Cape Fear stations may be due to the influx of swamp water and not for any local reason.

**Appendix A: Station Summary Sheets**

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 2109 NR OAK RIDGE  
**Station #:** B0040000  
**Latitude:** 36.21326      **Longitude:** -79.95620  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002  
**Stream class:** C NSW  
**NC stream index:** 16-(1)

**Time period:** 01/21/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		4.6	5	5.4	7.4	9.6	10.9	13.2
	58	0	<5	5	8.6		4.6	5	5.4	7.4	9.6	10.9	13.2
pH (SU)	59	0	<6	1	1.7		5.5	6.7	6.9	7.1	7.3	7.6	7.8
	59	0	>9	0	0		5.5	6.7	6.9	7.1	7.3	7.6	7.8
Spec. conductance (umhos/cm at 25°C)	57	0	N/A				55	70	76	93	106	119	690
Water Temperature (°C)	58	0	>32	0	0		0.2	5.1	9.4	15.2	20.5	23.2	26.3
<b>Other</b>													
TSS (mg/L)	20	6	N/A				2.5	2.6	4.1	6.1	8.9	12	18
Turbidity (NTU)	59	0	>50	1	1.7		5.1	7.2	8.4	13	17	21	60
<b>Nutrients (mg/L)</b>													
NH3 as N	59	26	N/A				0.02	0.02	0.02	0.02	0.05	0.09	0.12
NO2 + NO3 as N	58	17	N/A				0.02	0.02	0.02	0.06	0.09	0.2	0.32
TKN as N	59	6	N/A				0.2	0.2	0.26	0.33	0.41	0.47	0.65
Total Phosphorus	59	0	N/A				0.02	0.02	0.02	0.03	0.04	0.05	0.31
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				81	82	93	120	255	1932	3000
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	11	>7	0	0		2	2	2	2	2	2	3
Iron, total (Fe)	13	0	>1000	13	100	100	1600	1600	1750	3000	3550	4200	4600
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	13	13	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	9	>50	0	0		10	10	10	10	18	26	30
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
58	108	5	9										

**Key:**

# result: number of observations  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT US 29 BUS NR BENAJA  
**Station #:** B0050000  
**Latitude:** 36.26517      **Longitude:** -79.65226  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002  
**Stream class:** C NSW  
**NC stream index:** 16-(1)

**Time period:** 01/21/2004 to 03/07/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	15	0	<4	0	0		6.5	6.5	6.8	9.1	11.3	13.3	13.7
	15	0	<5	0	0		6.5	6.5	6.8	9.1	11.3	13.3	13.7
pH (SU)	15	0	<6	0	0		6.6	6.7	7	7.2	7.3	7.4	7.5
	15	0	>9	0	0		6.6	6.7	7	7.2	7.3	7.4	7.5
Spec. conductance (umhos/cm at 25°C)	15	0	N/A				57	67	83	89	111	139	173
Water Temperature (°C)	15	0	>32	0	0		2	2.6	8.3	13.4	21.6	24.8	27
<b>Other</b>													
TSS (mg/L)	5	0	N/A				4	4	5	6	7	7	7
Turbidity (NTU)	15	0	>50	0	0		6.5	7.4	8.9	11	12	17.8	22
<b>Nutrients (mg/L)</b>													
NH3 as N	15	9	N/A				0.02	0.02	0.02	0.02	0.03	0.04	0.04
NO2 + NO3 as N	15	0	N/A				0.04	0.05	0.09	0.18	0.22	0.3	0.31
TKN as N	15	1	N/A				0.2	0.22	0.26	0.3	0.34	0.44	0.51
Total Phosphorus	15	0	N/A				0.03	0.04	0.04	0.05	0.06	0.06	0.06
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	5	0	N/A				110	110	160	210	470	580	580
Arsenic, total (As)	5	5	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	5	5	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	5	5	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	5	3	>7	0	0		2	2	2	2	3	3	3
Iron, total (Fe)	5	0	>1000	5	100		1600	1600	1700	1900	2250	2400	2400
Lead, total (Pb)	5	5	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	5	5	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	5	5	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	5	4	>50	0	0		10	10	10	10	10	11	11
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
15	78	0	0										

**Key:**

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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT US 29 BUS NR BENAJA  
**Station #:** B0050000  
**Latitude:** 36.26517      **Longitude:** -79.65226  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030002  
**Stream class:** C NSW  
**NC stream index:** 16-(1)

**Time period:** 01/29/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	2	2.4		3.6	5.2	6.5	7.8	9.3	11.2	13.3
	85	0	<5	7	8.2		3.6	5.2	6.5	7.8	9.3	11.2	13.3
pH (SU)	85	0	<6	1	1.2		5.8	6.5	6.8	7.1	7.2	7.3	7.6
	85	0	>9	0	0		5.8	6.5	6.8	7.1	7.2	7.3	7.6
Spec. conductance (umhos/cm at 25°C)	85	1	N/A				57	71	81	98	108	118	195
Water Temperature (°C)	85	0	>32	0	0		2	5.4	12.2	20.1	24.2	26.4	28.2
<b>Other</b>													
TSS (mg/L)	60	4	N/A				1	1	2	4.1	8	12	16
Turbidity (NTU)	60	0	>50	1	1.7		2.1	4.9	8.3	10.7	14.8	26.7	57
<b>Nutrients (mg/L)</b>													
NH3 as N	60	27	N/A				0.02	0.02	0.02	0.02	0.05	0.08	0.15
NO2 + NO3 as N	60	7	N/A				0.02	0.02	0.07	0.15	0.22	0.33	0.56
TKN as N	60	10	N/A				0.1	0.2	0.2	0.3	0.5	0.73	30.5
Total Phosphorus	60	12	N/A				0.01	0.02	0.02	0.03	0.05	0.08	0.38
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				106	116	154	218	511	875	1110
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	16	>7	5	20	96.7	2	2	2	2	6	10	11
Iron, total (Fe)	25	0	>1000	20	80	100	247	489	1255	1560	2340	2520	2780
Lead, total (Pb)	25	24	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	20	>50	0	0		10	10	10	10	10	15	16
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	60	Geomean	90	# > 400:	8	% > 400:	13	%Conf:					

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** TROUBLESOME CRK AT US 29 BUS NR REIDSVILLE  
**Station #:** B0070010 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.27680 **Longitude:** -79.64993 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-6-(3)

**Time period:** 01/29/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	7	11.7	75.2	2.5	3.6	6.3	8.3	10.2	11.4	12
	60	0	<5	9	15	92.7	2.5	3.6	6.3	8.3	10.2	11.4	12
pH (SU)	60	0	<6	0	0		6.3	6.5	6.6	6.9	7.3	7.5	7.7
	60	0	>9	0	0		6.3	6.5	6.6	6.9	7.3	7.5	7.7
Spec. conductance (umhos/cm at 25°C)	60	1	N/A				59	66	70	77	128	140	288
Water Temperature (°C)	60	0	>32	1	1.7		4	6.6	9.1	17.4	23.3	25.6	32.8
<b>Other</b>													
TSS (mg/L)	60	5	N/A				1	2	3	5	7.8	16.4	44
Turbidity (NTU)	60	0	>50	0	0		1.4	2.8	4.5	6.2	9.7	18.2	32.7
<b>Nutrients (mg/L)</b>													
NH3 as N	58	12	N/A				0.01	0.02	0.02	0.07	0.13	0.28	0.97
NO2 + NO3 as N	60	4	N/A				0.02	0.02	0.05	0.09	0.17	0.31	0.71
TKN as N	58	5	N/A				0.2	0.2	0.3	0.44	0.6	0.88	2.6
Total Phosphorus	60	32	N/A				0.01	0.02	0.02	0.02	0.03	0.11	0.38
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	1	0	N/A				276	276	276	276	276	276	276
Arsenic, total (As)	1	1	>10	0	0		10	10	10	10	10	10	10
Cadmium, total (Cd)	1	1	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	1	1	>50	0	0		5	5	5	5	5	5	5
Copper, total (Cu)	1	0	>7	0	0		5	5	5	5	5	5	5
Iron, total (Fe)	1	0	>1000	0	0		878	878	878	878	878	878	878
Lead, total (Pb)	1	1	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	1	1	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	1	1	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	1	1	>50	0	0		10	10	10	10	10	10	10
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	60	Geomean	45	# > 400:	8	% > 400: %Conf:	13						

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LITTLE TROUBLESOME CRK AT SR 2600 NR REIDSVILLE  
**Station #:** B0160000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.28255 **Longitude:** -79.61160 **Stream class:** C NSW  
**Agency:** NCAMBNT **NC stream index:** 16-7  
**Time period:** 01/21/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	59	0	<4	0	0		6.4	6.8	7.5	9.3	11.2	12.9	15.8
	59	0	<5	0	0		6.4	6.8	7.5	9.3	11.2	12.9	15.8
pH (SU)	60	0	<6	0	0		6.6	7	7	7.2	7.4	7.6	8.5
	60	0	>9	0	0		6.6	7	7	7.2	7.4	7.6	8.5
Spec. conductance (umhos/cm at 25°C)	58	0	N/A				63	108	122	134	140	150	224
Water Temperature (°C)	60	0	>32	0	0		1.9	6.7	10.9	17.4	21.8	24	27.2
<b>Other</b>													
TSS (mg/L)	20	2	N/A				3.2	3.6	5.8	8.6	12.8	26.4	30
Turbidity (NTU)	60	0	>50	1	1.7		3.2	7.5	8.9	12	18	32.8	55
<b>Nutrients (mg/L)</b>													
NH3 as N	60	28	N/A				0.02	0.02	0.02	0.02	0.03	0.07	0.57
NO2 + NO3 as N	60	0	N/A				0.1	0.24	0.34	0.46	0.52	0.63	0.73
TKN as N	60	5	N/A				0.2	0.2	0.22	0.28	0.41	0.47	2.2
Total Phosphorus	60	0	N/A				0.03	0.04	0.04	0.06	0.08	0.1	0.9
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	19	0	N/A				130	170	280	470	840	1400	2100
Arsenic, total (As)	19	19	>10	0	0		2	5	5	5	5	10	10
Cadmium, total (Cd)	19	19	>2	0	0		1	1	1	2	2	2	2
Chromium, total (Cr)	19	19	>50	0	0		10	10	10	25	25	25	25
Copper, total (Cu)	19	14	>7	0	0		2	2	2	2	2	3	3
Iron, total (Fe)	19	0	>1000	16	84.2	100	860	1000	1100	1300	1700	2200	2300
Lead, total (Pb)	19	19	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	19	15	>88	0	0		10	10	10	10	10	15	19
Zinc, total (Zn)	19	12	>50	0	0		10	10	10	10	13	18	23
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
59	156	10	17										

**Key:**

# result: number of observations  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 2620 HIGH ROCK RD NR WILLIAMSBURG  
**Station #:** B0170000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.25143 **Longitude:** -79.56475 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-(1)

**Time period:** 01/29/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	86	0	<4	0	0		4.1	5.6	6.6	8	9.8	12.3	13.6
	86	0	<5	4	4.7		4.1	5.6	6.6	8	9.8	12.3	13.6
pH (SU)	86	0	<6	0	0		6.2	6.6	6.9	7.1	7.3	7.5	7.9
	86	0	>9	0	0		6.2	6.6	6.9	7.1	7.3	7.5	7.9
Spec. conductance (umhos/cm at 25°C)	86	0	N/A				65	87	112	146	256	422	740
Water Temperature (°C)	86	0	>32	0	0		2	6.4	11.7	19.3	24	25.8	27.8
<b>Other</b>													
TSS (mg/L)	60	5	N/A				1	1	2	4	9.5	17.7	184
Turbidity (NTU)	61	0	>50	4	6.6		2.7	4.5	6.9	8.7	15.9	31.3	206
<b>Nutrients (mg/L)</b>													
NH3 as N	61	23	N/A				0.01	0.02	0.02	0.04	0.06	0.11	0.22
NO2 + NO3 as N	60	1	N/A				0.02	0.09	0.14	0.25	0.4	0.52	1.05
TKN as N	61	4	N/A				0.2	0.2	0.31	0.4	0.6	0.9	1.02
Total Phosphorus	61	4	N/A				0.01	0.02	0.04	0.06	0.09	0.22	0.4
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	26	0	N/A				85	92	145	228	479	2282	5900
Arsenic, total (As)	26	26	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	26	26	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	26	24	>50	0	0		5	5	5	5	10	10	14
Copper, total (Cu)	26	9	>7	0	0		2	2	2	3	4	5	7
Iron, total (Fe)	26	0	>1000	22	84.6	100	620	938	1130	1235	1822	2762	8420
Lead, total (Pb)	26	25	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	17	17	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	26	25	>88	0	0		5	5	7	10	10	10	10
Zinc, total (Zn)	26	14	>50	0	0		10	10	10	10	13	18	33
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
61	112	13	21	67.1									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT NC 87 ALTAMAHAW

**Station #:** B0190000

**Latitude:** 36.18241

**Longitude:** -79.51022

**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002

**Stream class:** C NSW

**NC stream index:** 16-(1)

**Time period:** 01/20/2004 to 08/09/2004

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	8	0	<4	0	0		7.4	7.4	8.4	9.7	13	13.9	13.9
	8	0	<5	0	0		7.4	7.4	8.4	9.7	13	13.9	13.9
pH (SU)	8	0	<6	0	0		7	7	7.2	7.4	8	8	8
	8	0	>9	0	0		7	7	7.2	7.4	8	8	8
Spec. conductance (umhos/cm at 25°C)	8	0	N/A				49	49	101	124	172	191	191
Water Temperature (°C)	8	0	>32	0	0		3	3	4.8	15.6	24.3	28.6	28.6
<b>Other</b>													
TSS (mg/L)	2	0	N/A				3	3	3	4	5	5	5
Turbidity (NTU)	8	0	>50	0	0		6.2	6.2	6.8	10.3	12.8	23	23
<b>Nutrients (mg/L)</b>													
NH3 as N	8	5	N/A				0.02	0.02	0.02	0.02	0.03	0.04	0.04
NO2 + NO3 as N	8	0	N/A				0.15	0.15	0.17	0.33	0.38	0.4	0.4
TKN as N	8	0	N/A				0.25	0.25	0.29	0.35	0.39	0.49	0.49
Total Phosphorus	8	0	N/A				0.03	0.03	0.04	0.06	0.07	0.07	0.07
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	3	0	N/A				120	120	120	170	180	180	180
Arsenic, total (As)	3	3	>10	0	0		10	10	10	10	10	10	10
Cadmium, total (Cd)	3	3	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	3	3	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	3	0	>7	0	0		2	2	2	2	3	3	3
Iron, total (Fe)	3	0	>1000	3	100		1200	1200	1200	1300	1300	1300	1300
Lead, total (Pb)	3	3	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	3	3	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	3	3	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	3	2	>50	0	0		10	10	10	10	25	25	25
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	8												
<b>Geomean</b>	49												
<b># &gt; 400:</b>		0											
<b>% &gt; 400: %Conf:</b>			0										

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 1561 NR ALTAMAHAW  
**Station #:** B0210000  
**Latitude:** 36.17864      **Longitude:** -79.50415  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002  
**Stream class:** C NSW  
**NC stream index:** 16-(1)

**Time period:** 09/13/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	50	0	<4	0	0		6.7	7.4	7.8	9.6	11.7	12.9	13.9
	50	0	<5	0	0		6.7	7.4	7.8	9.6	11.7	12.9	13.9
pH (SU)	51	0	<6	0	0		6.5	7	7.2	7.4	7.6	7.7	8
	51	0	>9	0	0		6.5	7	7.2	7.4	7.6	7.7	8
Spec. conductance (umhos/cm at 25°C)	50	0	N/A				61	90	104	128	152	305	566
Water Temperature (°C)	51	0	>32	0	0		1.8	6.5	10.3	17.3	23.4	26	28.7
<b>Other</b>													
TSS (mg/L)	17	4	N/A				2.5	3.7	5	6.8	10.5	22.4	24
Turbidity (NTU)	51	0	>50	2	3.9		4.4	5.9	8.1	11	16	29	230
<b>Nutrients (mg/L)</b>													
NH3 as N	51	19	N/A				0.02	0.02	0.02	0.02	0.04	0.06	0.13
NO2 + NO3 as N	51	0	N/A				0.02	0.07	0.13	0.2	0.31	0.36	0.59
TKN as N	51	0	N/A				0.24	0.28	0.35	0.42	0.5	0.55	1.2
Total Phosphorus	51	0	N/A				0.03	0.04	0.06	0.07	0.08	0.11	0.34
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	10	0	N/A				130	134	215	380	615	1053	1100
Arsenic, total (As)	10	10	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	10	10	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	10	10	>50	0	0		10	12	25	25	25	25	25
Copper, total (Cu)	10	2	>7	0	0		2	2	2	2	2	4	4
Iron, total (Fe)	10	0	>1000	9	90	100	1000	1010	1175	1400	2000	2180	2200
Lead, total (Pb)	10	10	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	10	10	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	10	8	>50	0	0		10	10	10	10	10	12	12
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
50	69	3	6										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** REEDY FORK AT SR 2719 HIGH ROCK RD NR MONTICELLO  
**Station #:** B0400000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.17780 **Longitude:** -79.61772 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-11-(9)

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	0	0		5.2	5.9	7.2	9.1	10.8	12.2	13.9
	60	0	<5	0	0		5.2	5.9	7.2	9.1	10.8	12.2	13.9
pH (SU)	60	0	<6	0	0		6.6	6.9	7	7.1	7.2	7.5	7.7
	60	0	>9	0	0		6.6	6.9	7	7.1	7.2	7.5	7.7
Spec. conductance (umhos/cm at 25°C)	60	1	N/A				76	89	96	104	111	117	135
Water Temperature (°C)	60	0	>32	0	0		3	5.1	9.9	16.6	23.5	24.8	27.1
<b>Other</b>													
TSS (mg/L)	60	5	N/A				1	1.1	2.3	5	8	14.8	67
Turbidity (NTU)	60	0	>50	0	0		1.6	3.7	5.4	8.8	13	19.4	39.4
<b>Nutrients (mg/L)</b>													
NH3 as N	59	29	N/A				0.02	0.02	0.02	0.02	0.05	0.08	0.3
NO2 + NO3 as N	60	4	N/A				0.02	0.03	0.1	0.16	0.26	0.32	0.53
TKN as N	59	10	N/A				0.2	0.2	0.26	0.38	0.5	0.67	2
Total Phosphorus	60	20	N/A				0.01	0.02	0.02	0.03	0.05	0.09	0.45

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	63	6	10	

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level: applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** N BUFFALO CRK AT N BUFFALO CRK WWTP INFLUENT CONDUIT PIER AT GREENSBORO

**Station #:** B0480050

**Hydrologic Unit Code:** 03030002

**Latitude:** 36.10740

**Longitude:** -79.75023

**Stream class:** C NSW

**Agency:** UCFRBA

**NC stream index:** 16-11-14-1

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	86	0	<4	0	0		4	5	6.5	7.8	9.9	12	13.3
	86	0	<5	7	8.1		4	5	6.5	7.8	9.9	12	13.3
pH (SU)	86	0	<6	0	0		6.6	7	7.2	7.3	7.4	7.6	8.4
	86	0	>9	0	0		6.6	7	7.2	7.3	7.4	7.6	8.4
Spec. conductance (umhos/cm at 25°C)	86	0	N/A				47	129	179	221	254	282	1877
Water Temperature (°C)	86	0	>32	0	0		3	7.1	13	19.8	24.3	25.6	27.7
<b>Other</b>													
TSS (mg/L)	61	9	N/A				1	1	1.5	2	4	8	97
Turbidity (NTU)	61	0	>50	1	1.6		1.5	2.1	3	4.5	8.9	14.4	84
<b>Nutrients (mg/L)</b>													
NH3 as N	60	19	N/A				0.02	0.02	0.02	0.04	0.1	0.16	0.35
NO2 + NO3 as N	61	2	N/A				0.02	0.12	0.24	0.35	0.51	0.77	1.24
TKN as N	60	9	N/A				0.18	0.2	0.28	0.4	0.56	0.88	2.5
Total Phosphorus	62	4	N/A				0.01	0.02	0.03	0.05	0.07	0.11	0.29
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	26	2	N/A				50	51	84	154	366	1110	4540
Arsenic, total (As)	26	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	26	26	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	26	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	26	4	>7	2	7.7		2	2	3	4	5	8	13
Iron, total (Fe)	26	0	>1000	5	19.2	96	264	418	601	738	892	1145	4880
Lead, total (Pb)	26	23	>25	0	0		2	2	10	10	10	10	16
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	26	26	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	26	7	>50	1	3.8		10	10	10	18	22	40	74

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400:	%Conf:
61	265	19	31	98.7

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** N BUFFALO CRK AT SR 2832 NR GREENSBORO  
**Station #:** B0540000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.11994 **Longitude:** -79.70818 **Stream class:** C NSW  
**Agency:** NCAMBNT **NC stream index:** 16-11-14-1

**Time period:** 01/20/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	57	0	<4	0	0		4.6	5.6	6.3	7.8	9.8	10.8	13.2
	57	0	<5	1	1.8		4.6	5.6	6.3	7.8	9.8	10.8	13.2
pH (SU)	57	0	<6	0	0		6.5	6.9	7.1	7.3	7.4	7.6	7.8
	57	0	>9	0	0		6.5	6.9	7.1	7.3	7.4	7.6	7.8
Spec. conductance (umhos/cm at 25°C)	57	0	N/A				68	191	266	343	376	415	906
Water Temperature (°C)	59	0	>32	0	0		4.3	8.7	11.7	16.7	24.1	25.5	28.2
<b>Other</b>													
TSS (mg/L)	19	8	N/A				2.5	2.5	3.2	6	6.2	12	14
Turbidity (NTU)	59	0	>50	0	0		1.1	1.8	3.2	5.2	9.4	15	31
<b>Nutrients (mg/L)</b>													
NH3 as N	59	0	N/A				0.04	0.07	0.1	0.15	0.34	0.7	4.7
NO2 + NO3 as N	59	0	N/A				1.8	3.8	5.7	9.1	12	15	20
TKN as N	59	0	N/A				0.28	0.75	0.85	1	1.3	1.7	5.2
Total Phosphorus	59	0	N/A				0.02	0.2	0.37	0.53	0.69	0.92	1.3
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				95	101	130	220	580	1124	1400
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	0	>7	5	38.5	99.9	4	4	5	7	8	13	15
Iron, total (Fe)	13	0	>1000	1	7.7		220	244	350	560	825	1360	1600
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	13	13	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	0	>50	4	30.8	99.4	35	35	40	44	52	56	57
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
58	137	11	19										

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** N BUFFALO CRK AT SR 2770 HUFFINE MILL RD NR MCLEANSVILLE  
**Station #:** B0540050 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.12998 **Longitude:** -79.66260 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-11-14-1

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	86	0	<4	0	0		4.3	6.5	7.2	8.3	10	10.9	13.7
	86	0	<5	1	1.2		4.3	6.5	7.2	8.3	10	10.9	13.7
pH (SU)	86	0	<6	0	0		6.5	7	7.1	7.2	7.4	7.7	8.4
	86	0	>9	0	0		6.5	7	7.1	7.2	7.4	7.7	8.4
Spec. conductance (umhos/cm at 25°C)	86	0	N/A				79	167	293	350	388	615	1502
Water Temperature (°C)	86	0	>32	0	0		5	9.8	13.6	20.4	24.4	26.2	27.6
<b>Other</b>													
TSS (mg/L)	61	17	N/A				1	1	1	2	4	14.8	43.3
Turbidity (NTU)	61	0	>50	1	1.6		1	1.5	2.1	3	6.6	17.8	155
<b>Nutrients (mg/L)</b>													
NH3 as N	60	7	N/A				0.02	0.02	0.03	0.05	0.11	0.68	3.82
NO2 + NO3 as N	61	0	N/A				0.2	2.63	4.06	8.73	11.6	14	17.4
TKN as N	60	9	N/A				0.2	0.2	0.29	0.58	1	1.79	4.7
Total Phosphorus	61	0	N/A				0.08	0.16	0.26	0.42	0.6	0.72	1.57
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	26	2	N/A				50	74	87	147	660	923	3030
Arsenic, total (As)	26	26	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	26	26	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	26	24	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	26	1	>7	6	23.1	98.8	2	4	4	6	7	10	12
Iron, total (Fe)	26	0	>1000	5	19.2	96	101	160	261	424	820	1384	3480
Lead, total (Pb)	26	24	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	17	17	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	26	20	>88	0	0		5	5	9	10	10	14	20
Zinc, total (Zn)	26	0	>50	9	34.6	100	20	24	34	42	59	72	102
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	61	Geomean	190	# > 400:	16	% > 400:	26	%Conf:	91.2				

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** S BUFFALO CRK AT SR 3000 MCCONNELL RD NR GREENSBORO  
**Station #:** B0670000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.05978 **Longitude:** -79.72556 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-11-14-2

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	86	0	<4	0	0		4.4	5.9	7.5	9.3	10.6	12.6	16.7
	86	0	<5	3	3.5		4.4	5.9	7.5	9.3	10.6	12.6	16.7
pH (SU)	86	0	<6	0	0		6.8	7	7.2	7.4	7.7	8	8.4
	86	0	>9	0	0		6.8	7	7.2	7.4	7.7	8	8.4
Spec. conductance (umhos/cm at 25°C)	86	0	N/A				64	130	178	240	270	307	1724
Water Temperature (°C)	86	0	>32	0	0		3	7.7	13.2	19.9	25	26.5	29.1
<b>Other</b>													
TSS (mg/L)	61	13	N/A				1	1	1	2	5	20.4	288
Turbidity (NTU)	61	0	>50	3	4.9		1.6	2.4	3.3	6.3	14.6	30.3	324
<b>Nutrients (mg/L)</b>													
NH3 as N	61	21	N/A				0.01	0.02	0.02	0.05	0.09	0.16	1.91
NO2 + NO3 as N	61	5	N/A				0.02	0.02	0.11	0.3	0.52	0.7	1.74
TKN as N	61	8	N/A				0.2	0.2	0.29	0.42	0.6	0.9	3.5
Total Phosphorus	61	3	N/A				0.01	0.02	0.04	0.05	0.07	0.19	0.38
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	26	4	N/A				42	50	95	218	773	1001	6820
Arsenic, total (As)	26	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	26	26	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	26	23	>50	0	0		5	5	5	5	10	12	17
Copper, total (Cu)	25	8	>7	2	8		2	2	2	3	5	12	25
Iron, total (Fe)	26	0	>1000	16	61.5	100	293	413	824	1110	1490	1990	7790
Lead, total (Pb)	26	24	>25	1	3.8		2	2	10	10	10	12	34
Mercury, total (Hg)	17	17	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	26	26	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	26	7	>50	1	3.8		10	10	10	14	20	35	115
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
61	189	15	25	85.4									

**Key:**

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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** S BUFFALO CRK AT SR 2821 AT MCLEANSVILLE  
**Station #:** B0750000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.11278 **Longitude:** -79.67181 **Stream class:** C NSW  
**Agency:** NCAMBNT **NC stream index:** 16-11-14-2  
**Time period:** 01/20/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	56	0	<4	0	0		5.2	5.7	6.4	7.6	9.4	10.7	13.2
	56	0	<5	0	0		5.2	5.7	6.4	7.6	9.4	10.7	13.2
pH (SU)	56	0	<6	0	0		7	7.3	7.5	7.6	7.7	7.9	8.3
	56	0	>9	0	0		7	7.3	7.5	7.6	7.7	7.9	8.3
Spec. conductance (umhos/cm at 25°C)	56	0	N/A				97	352	490	690	862	985	1124
Water Temperature (°C)	58	0	>32	0	0		3.7	11.4	14	19	25.7	27.7	29.5
<b>Other</b>													
TSS (mg/L)	19	6	N/A				2.5	2.5	3.2	6.2	9.2	22	69
Turbidity (NTU)	59	0	>50	2	3.4		1.2	2	2.8	4	7.7	20	65
<b>Nutrients (mg/L)</b>													
NH3 as N	59	13	N/A				0.02	0.02	0.02	0.03	0.05	0.09	1.8
NO2 + NO3 as N	59	0	N/A				0.16	2.2	3.4	5.4	6.9	8.8	11
TKN as N	59	0	N/A				0.36	0.85	1.1	1.2	1.4	1.7	3.1
Total Phosphorus	59	0	N/A				0.05	0.21	0.26	0.35	0.71	2	3.6
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				90	94	125	180	340	1436	2000
Arsenic, total (As)	13	12	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	0	>7	2	15.4	86.6	2	3	4	5	6	8	9
Iron, total (Fe)	13	0	>1000	1	7.7		120	180	340	510	715	2000	2800
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	13	13	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	5	>88	0	0		10	10	10	14	16	32	34
Zinc, total (Zn)	13	0	>50	8	61.5	100	33	36	40	54	76	98	110
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
57	222	14	25	84.8									

**Key:**  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** S BUFFALO CRK AT SR 2821 AT MCLEANSVILLE  
**Station #:** B0750000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.11278 **Longitude:** -79.67181 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-11-14-2

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	86	0	<4	1	1.2		3.5	6	6.7	7.3	8.7	10.1	11
	86	0	<5	4	4.7		3.5	6	6.7	7.3	8.7	10.1	11
pH (SU)	86	0	<6	0	0		7.2	7.4	7.5	7.6	7.8	7.8	8
	86	0	>9	0	0		7.2	7.4	7.5	7.6	7.8	7.8	8
Spec. conductance (umhos/cm at 25°C)	86	0	N/A				168	448	610	786	931	1058	1490
Water Temperature (°C)	86	0	>32	0	0		8	11.9	16.8	22.6	26.7	27.7	29.7
<b>Other</b>													
TSS (mg/L)	61	7	N/A				1	1	2	4	8	17.6	50
Turbidity (NTU)	61	0	>50	0	0		1.2	1.8	2.4	4.1	9.4	17.2	49.8
<b>Nutrients (mg/L)</b>													
NH3 as N	61	5	N/A				0.02	0.02	0.04	0.05	0.1	0.69	5.02
NO2 + NO3 as N	61	1	N/A				0.02	1.99	3.24	5.62	6.92	7.99	11.1
TKN as N	61	2	N/A				0.2	0.62	0.83	1.16	1.46	1.82	6.7
Total Phosphorus	61	0	N/A				0.12	0.21	0.25	0.34	0.54	0.92	4.66
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	26	1	N/A				50	74	107	174	406	691	908
Arsenic, total (As)	26	26	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	26	19	>2	1	3.8		0.5	0.6	1.4	2	2	2	3
Chromium, total (Cr)	26	24	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	26	6	>7	3	11.5	74.1	2	2	3	4	5	8	13
Iron, total (Fe)	26	0	>1000	5	19.2	96	149	194	319	502	755	1306	1460
Lead, total (Pb)	26	26	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	17	17	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	26	5	>88	0	0		5	5	10	12	19	25	34
Zinc, total (Zn)	26	0	>50	19	73.1	100	17	32	46	68	87	105	137
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	61	Geomean	265	# > 400:	17	% > 400:	28	%Conf:	95				

**Key:**  
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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** REEDY FORK AT NC 87 AT OSSIPEE  
**Station #:** B0840000  
**Latitude:** 36.17299      **Longitude:** -79.51026  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002  
**Stream class:** C NSW  
**NC stream index:** 16-11-(9)

**Time period:** 01/20/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		6.7	7.3	7.9	9.4	11	12.9	13.5
	58	0	<5	0	0		6.7	7.3	7.9	9.4	11	12.9	13.5
pH (SU)	59	0	<6	0	0		6.4	7.1	7.4	7.6	7.8	8	8.7
	59	0	>9	0	0		6.4	7.1	7.4	7.6	7.8	8	8.7
Spec. conductance (umhos/cm at 25°C)	58	0	N/A				69	134	254	394	528	634	807
Water Temperature (°C)	59	0	>32	0	0		3.4	7.9	11.8	17.9	24	27.4	30.1
<b>Other</b>													
TSS (mg/L)	18	3	N/A				2.5	3.8	5.8	7.6	13.5	24.5	56
Turbidity (NTU)	59	0	>50	2	3.4		2.9	3.8	4.8	6.4	14	26	230
<b>Nutrients (mg/L)</b>													
NH3 as N	59	11	N/A				0.02	0.02	0.02	0.05	0.08	0.24	0.94
NO2 + NO3 as N	59	0	N/A				0.02	1.1	1.9	4.1	5.4	7.6	8.7
TKN as N	59	0	N/A				0.48	0.7	0.76	0.87	0.99	1.1	1.8
Total Phosphorus	59	0	N/A				0.11	0.19	0.24	0.34	0.43	0.7	22
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				110	126	165	210	510	936	980
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	0	>7	0	0		2	2	3	4	5	5	6
Iron, total (Fe)	13	0	>1000	2	15.4	86.6	280	284	430	580	715	1160	1200
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	13	13	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	11	>88	0	0		10	10	10	10	10	22	25
Zinc, total (Zn)	13	1	>50	3	23.1	96.6	10	13	22	38	46	65	73
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	Geomean		# > 400:	% > 400:		%Conf:							
55	142		8	15									

**Key:**

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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 1530 GERRINGER MILL RD NR OSSIPEE  
**Station #:** B0850000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.15314 **Longitude:** -79.48945 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-(1)

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.8	7.5	8.2	9.4	11.2	12.6	13.9
	85	0	<5	3	3.5		4.8	7.5	8.2	9.4	11.2	12.6	13.9
pH (SU)	85	0	<6	0	0		6.7	7.2	7.4	7.7	7.8	8.2	8.8
	85	0	>9	0	0		6.7	7.2	7.4	7.7	7.8	8.2	8.8
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				104	145	206	279	438	597	736
Water Temperature (°C)	85	0	>32	0	0		3	7.6	11.9	19.9	24	25.9	28.1
<b>Other</b>													
TSS (mg/L)	60	3	N/A				1	2	2	4	8	20.8	63.3
Turbidity (NTU)	60	0	>50	0	0		1.8	2.5	4.1	7	12.3	21.3	43
<b>Nutrients (mg/L)</b>													
NH3 as N	60	26	N/A				0.01	0.02	0.02	0.03	0.05	0.12	0.26
NO2 + NO3 as N	60	0	N/A				0.16	0.63	1.12	1.68	3.32	5.33	7.76
TKN as N	60	2	N/A				0.2	0.28	0.42	0.56	0.79	1	1.4
Total Phosphorus	60	0	N/A				0.03	0.09	0.13	0.17	0.28	0.43	2.9
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	9	1	N/A				50	50	72	128	251	359	359
Arsenic, total (As)	9	9	>10	0	0		10	10	10	10	10	10	10
Cadmium, total (Cd)	9	9	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	9	9	>50	0	0		5	5	5	5	5	5	5
Copper, total (Cu)	9	4	>7	0	0		2	2	2	3	4	5	5
Iron, total (Fe)	9	0	>1000	1	11.1		269	269	490	664	898	1190	1190
Lead, total (Pb)	9	9	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	9	1	>0.012	0	0		0.001	0.001	0.002	0.002	0.003	0.004	0.004
Nickel, total (Ni)	9	7	>88	0	0		10	10	10	10	12	20	20
Zinc, total (Zn)	9	0	>50	1	11.1		19	19	20	31	44	72	72
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	60	Geomean	90	# > 400:	7	% > 400:	12	%Conf:					

**Key:**

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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** JORDAN CRK AT SR 1754 NR UNION RIDGE  
**Station #:** B1095000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.18898 **Longitude:** -79.39484 **Stream class:** WS-II HQW NSW  
**Agency:** NCAMBNT **NC stream index:** 16-14-6-(0.5)

**Time period:** 01/20/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	55	0	<4	1	1.8		2.5	5.9	6.9	8.7	10.6	11.9	13.8
	55	0	<5	2	3.6		2.5	5.9	6.9	8.7	10.6	11.9	13.8
pH (SU)	56	0	<6	0	0		6.1	7	7.2	7.3	7.5	7.7	8.2
	56	0	>9	0	0		6.1	7	7.2	7.3	7.5	7.7	8.2
Spec. conductance (umhos/cm at 25°C)	55	0	N/A				54	87	99	117	135	149	212
Water Temperature (°C)	56	0	>32	0	0		1.6	6.8	10.5	15.7	22.5	25.3	28.3
<b>Other</b>													
TSS (mg/L)	18	3	N/A				3	3.7	5	7.1	12	46.2	84
Turbidity (NTU)	56	0	>50	2	3.6		1.5	4.4	6.8	9.7	15.5	41.5	100
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				95	109	175	360	565	3220	3300
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	10	>7	0	0		2	2	2	2	2	5	5
Iron, total (Fe)	13	0	>1000	10	76.9	100	630	746	1025	1600	2600	5800	5800
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	9	69.2	100	92	115	175	400	675	10080	16000
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	11	>50	0	0		10	10	10	10	10	17	19

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
54	118	9	17

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT NC 49N AT HAW RIVER  
**Station #:** B1140000  
**Latitude:** 36.08889      **Longitude:** -79.36822  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002  
**Stream class:** C NSW  
**NC stream index:** 16-(1)

**Time period:** 01/20/2004 to 12/02/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		6.3	7.4	8.4	10.2	12.3	13.7	16.2
	58	0	<5	0	0		6.3	7.4	8.4	10.2	12.3	13.7	16.2
pH (SU)	59	0	<6	0	0		6.7	7.3	7.6	7.9	8.2	8.7	9.2
	59	0	>9	1	1.7		6.7	7.3	7.6	7.9	8.2	8.7	9.2
Spec. conductance (umhos/cm at 25°C)	59	0	N/A				89	142	164	282	374	553	714
Water Temperature (°C)	59	0	>32	0	0		3	7.1	10.3	16.6	23.5	28.2	31.8
<b>Other</b>													
TSS (mg/L)	19	8	N/A				4.5	5	6.2	7	12	23	27
Turbidity (NTU)	59	0	>50	1	1.7		1.8	3	3.9	8.1	15	29	110
<b>Nutrients (mg/L)</b>													
NH3 as N	59	33	N/A				0.02	0.02	0.02	0.02	0.03	0.09	0.32
NO2 + NO3 as N	59	0	N/A				0.4	0.72	1.1	1.6	3	4.6	5.9
TKN as N	59	0	N/A				0.54	0.58	0.68	0.8	1	1.1	1.4
Total Phosphorus	59	0	N/A				0.06	0.1	0.13	0.19	0.27	0.34	1.2
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				94	104	125	410	910	1480	1800
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	0	>7	0	0		2	3	3	4	5	6	6
Iron, total (Fe)	13	0	>1000	7	53.8	100	260	376	595	1100	1450	2140	2500
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	12	>88	0	0		10	10	10	10	10	15	18
Zinc, total (Zn)	13	0	>50	0	0		11	11	13	21	26	40	42
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
56	135	14	25	86.4									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT NC 54 NR GRAHAM

**Station #:** B1200000

**Latitude:** 36.04805

**Longitude:** -79.36668

**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030002

**Stream class:** C NSW

**NC stream index:** 16-(1)

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.7	6.4	7.5	8.5	11	12	13.9
	85	0	<5	2	2.4		4.7	6.4	7.5	8.5	11	12	13.9
pH (SU)	85	0	<6	0	0		6.9	7.1	7.3	7.5	7.9	8.3	9.1
	85	0	>9	1	1.2		6.9	7.1	7.3	7.5	7.9	8.3	9.1
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				98	158	184	269	365	560	793
Water Temperature (°C)	85	0	>32	0	0		2	7.2	12.1	20.1	25.6	27.8	29.5
<b>Other</b>													
TSS (mg/L)	60	6	N/A				1	1	2	4	10	25.5	64
Turbidity (NTU)	60	0	>50	0	0		1.6	2.5	3.8	7.7	14.6	28.4	46.2
<b>Nutrients (mg/L)</b>													
NH3 as N	60	25	N/A				0.01	0.02	0.02	0.03	0.06	0.09	0.37
NO2 + NO3 as N	60	1	N/A				0.02	0.79	1.04	1.82	2.81	4.69	5.79
TKN as N	60	1	N/A				0.2	0.4	0.56	0.69	0.8	1	3.4
Total Phosphorus	60	0	N/A				0.02	0.07	0.1	0.15	0.26	0.38	2.69
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				51	81	115	199	598	909	1150
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	24	7	>7	0	0		2	2	2	3	4	6	7
Iron, total (Fe)	25	0	>1000	10	40	100	207	335	686	926	1245	1858	2300
Lead, total (Pb)	25	24	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	20	>88	0	0		5	5	7	10	10	10	19
Zinc, total (Zn)	25	1	>50	1	4		10	13	16	20	28	41	76
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	124	11	18										

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** TOWN BRANCH AT SR 2109 NR GRAHAM  
**Station #:** B1260000  
**Latitude:** 36.04734      **Longitude:** -79.36906  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002  
**Stream class:** C NSW  
**NC stream index:** 16-17

**Time period:** 01/20/2004 to 12/02/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		5.6	6.3	7.1	9	11.9	13.3	16.2
	58	0	<5	0	0		5.6	6.3	7.1	9	11.9	13.3	16.2
pH (SU)	59	0	<6	0	0		6.3	7.1	7.3	7.4	7.6	7.9	8.6
	59	0	>9	0	0		6.3	7.1	7.3	7.4	7.6	7.9	8.6
Spec. conductance (umhos/cm at 25°C)	59	0	N/A				83	142	182	253	317	340	620
Water Temperature (°C)	59	0	>32	0	0		1	5.8	10.1	15.7	22.4	26	27.6
<b>Other</b>													
TSS (mg/L)	19	11	N/A				2.5	2.5	2.5	6.2	8.8	17	407
Turbidity (NTU)	59	1	>50	1	1.7		1	2.2	2.9	4.4	12	21	200
<b>Nutrients (mg/L)</b>													
NH3 as N	58	35	N/A				0.02	0.02	0.02	0.02	0.02	0.08	1.8
NO2 + NO3 as N	58	1	N/A				0.02	0.12	0.27	0.46	0.68	0.97	1.7
TKN as N	58	8	N/A				0.2	0.2	0.24	0.38	0.48	0.81	7.8
Total Phosphorus	58	4	N/A				0.02	0.02	0.03	0.06	0.08	0.13	1.1
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				90	92	128	465	868	4650	6100
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	5	>7	1	7.1		2	2	2	3	4	18	29
Iron, total (Fe)	14	0	>1000	6	42.9	100	230	235	338	780	1125	6850	11000
Lead, total (Pb)	14	13	>25	0	0		10	10	10	10	10	14	18
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	13	>88	0	0		10	10	10	10	10	12	15
Zinc, total (Zn)	14	5	>50	1	7.1		10	10	10	10	19	78	130
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
56	181	16	29	95.7									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** MOADAMS CRK AT CORRIGDOR RD UPS OF DISCHARGE NR MEBANE  
**Station #:** B1350000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.08852 **Longitude:** -79.28443 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-18-7

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	84	0	<4	0	0		4.1	5.1	5.9	7	8.8	10.2	11.7
	84	0	<5	5	6		4.1	5.1	5.9	7	8.8	10.2	11.7
pH (SU)	83	0	<6	2	2.4		5.9	6.5	6.7	7	7.2	7.4	7.8
	83	0	>9	0	0		5.9	6.5	6.7	7	7.2	7.4	7.8
Spec. conductance (umhos/cm at 25°C)	84	0	N/A				94	130	149	168	174	186	229
Water Temperature (°C)	84	0	>32	0	0		2	6	11	17.3	21.5	24.4	28
<b>Other</b>													
TSS (mg/L)	60	4	N/A				1	2	4	6	9.9	17.5	154
Turbidity (NTU)	60	0	>50	2	3.3		3.4	6.3	8.9	11.8	15.7	28.4	80
<b>Nutrients (mg/L)</b>													
NH3 as N	2	0	N/A				0.09	0.09	0.09	0.1	0.1	0.1	0.1
NO2 + NO3 as N	2	0	N/A				0.31	0.31	0.31	0.39	0.47	0.47	0.47
TKN as N	2	0	N/A				0.4	0.4	0.4	0.45	0.5	0.5	0.5
Total Phosphorus	8	4	N/A				0.02	0.02	0.02	0.02	0.06	0.29	0.29
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				62	79	130	192	301	450	543
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	20	>7	0	0		2	2	2	2	2	3	4
Iron, total (Fe)	25	0	>1000	24	96	100	940	1116	1435	1640	2185	2946	3810
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	18	>50	1	4		10	10	10	10	12	27	61
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	172	13	22	69.4									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** MOADAMS CRK AT SR 1940 GIBSON RD NR FLORENCE TOWN  
**Station #:** B1380000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.08913 **Longitude:** -79.30747 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-18-7

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.9	6.2	6.8	8	10.6	12	14.2
	85	0	<5	1	1.2		4.9	6.2	6.8	8	10.6	12	14.2
pH (SU)	85	0	<6	0	0		6.5	7	7.1	7.3	7.4	7.5	8.4
	85	0	>9	0	0		6.5	7	7.1	7.3	7.4	7.5	8.4
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				144	240	294	340	444	505	625
Water Temperature (°C)	85	0	>32	0	0		2.2	6.7	11.8	18.3	22.9	25.9	28
<b>Other</b>													
TSS (mg/L)	60	1	N/A				1	3	5	8	11	24.6	104
Turbidity (NTU)	60	0	>50	2	3.3		3.9	6.8	8.9	11.7	17.9	28.2	130
<b>Nutrients (mg/L)</b>													
NH3 as N	60	4	N/A				0.02	0.02	0.04	0.09	0.13	0.19	4.39
NO2 + NO3 as N	60	1	N/A				0.02	0.76	1.23	1.98	3.7	6.47	11.4
TKN as N	60	2	N/A				0.2	0.41	0.6	0.7	0.93	1.4	4.72
Total Phosphorus	60	0	N/A				0.02	0.12	0.18	0.31	0.49	0.72	1.35
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	1	N/A				50	153	212	274	469	891	2400
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	10	>7	1	4		2	2	2	3	4	5	12
Iron, total (Fe)	25	0	>1000	19	76	100	511	734	988	1410	1775	2050	5400
Lead, total (Pb)	25	24	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	24	>88	0	0		5	5	6	10	10	10	10
Zinc, total (Zn)	25	2	>50	1	4		10	12	20	25	37	44	62
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	60	Geomean	164	# > 400:	8	% > 400:	13						

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 2158 SWEPSONVILLE RD NR SWEPSONVILLE  
**Station #:** B1440000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.02562 **Longitude:** -79.36821 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-(1)

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.7	6.4	7.5	8.8	11.2	12.5	14
	85	0	<5	2	2.4		4.7	6.4	7.5	8.8	11.2	12.5	14
pH (SU)	85	0	<6	0	0		6.8	7.2	7.4	7.6	8	8.4	9.3
	85	0	>9	2	2.4		6.8	7.2	7.4	7.6	8	8.4	9.3
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				99	153	182	261	354	531	771
Water Temperature (°C)	84	0	>32	0	0		2	7.2	12.4	20.4	25.5	28.1	29.5
<b>Other</b>													
TSS (mg/L)	60	5	N/A				1	2	3	4	9	24.7	56.2
Turbidity (NTU)	60	0	>50	1	1.7		2	2.3	3.7	7.6	14.6	27.8	55.8
<b>Nutrients (mg/L)</b>													
NH3 as N	60	28	N/A				0.01	0.02	0.02	0.02	0.06	0.08	0.42
NO2 + NO3 as N	60	1	N/A				0.02	0.8	1.02	1.66	2.75	4.14	5.01
TKN as N	60	1	N/A				0.2	0.39	0.5	0.67	0.85	1.12	4
Total Phosphorus	60	1	N/A				0.01	0.08	0.1	0.15	0.24	0.35	2.4
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				67	88	136	223	566	918	1300
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	24	4	>7	1	4.2		2	2	2	3	5	6	8
Iron, total (Fe)	25	0	>1000	9	36	100	224	334	694	868	1245	1704	2700
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	22	>88	0	0		5	5	6	10	10	10	17
Zinc, total (Zn)	25	1	>50	2	8		10	12	15	19	28	47	78
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	60	Geomean	88	# > 400:	10	% > 400: %Conf:	17						

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BIG ALAMANCE CRK AT NC 87 NR SWEPSONVILLE  
**Station #:** B1940000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.02420 **Longitude:** -79.39430 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-19-(4.5)

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.2	5.6	6.2	7.7	10.2	11.8	12.9
	85	0	<5	5	5.9		4.2	5.6	6.2	7.7	10.2	11.8	12.9
pH (SU)	85	0	<6	0	0		6.2	6.9	7	7.2	7.3	7.4	7.9
	85	0	>9	0	0		6.2	6.9	7	7.2	7.3	7.4	7.9
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				83	109	119	132	152	174	266
Water Temperature (°C)	85	0	>32	0	0		2.7	6.6	10.6	18.5	23.9	27	28.1
<b>Other</b>													
TSS (mg/L)	60	2	N/A				1	2	3	6	10	18.8	62
Turbidity (NTU)	60	0	>50	2	3.3		1.9	3.8	6.2	9.5	14.5	26.3	71.6
<b>Nutrients (mg/L)</b>													
NH3 as N	60	26	N/A				0.01	0.02	0.02	0.03	0.05	0.11	0.25
NO2 + NO3 as N	60	4	N/A				0.02	0.04	0.11	0.21	0.33	0.41	1.29
TKN as N	60	8	N/A				0.1	0.2	0.26	0.4	0.57	0.8	1.07
Total Phosphorus	60	12	N/A				0.01	0.02	0.02	0.03	0.06	0.11	0.37
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				67	109	173	293	520	634	928
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	23	12	>7	0	0		2	2	2	2	3	4	6
Iron, total (Fe)	25	0	>1000	12	48	100	620	637	708	978	1255	1774	2600
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	15	>50	0	0		10	10	10	10	14	23	27
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	177	13	22	69.4									

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BIG ALAMANCE CRK AT SR 2116 AT SWEPSONSVILLE  
**Station #:** B1960000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.01774 **Longitude:** -79.36703 **Stream class:** C NSW  
**Agency:** NCAMBNT **NC stream index:** 16-19-(4.5)

**Time period:** 01/20/2004 to 12/02/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	57	0	<4	0	0		5.3	6	6.4	8.4	10.6	11.4	12.9
	57	0	<5	0	0		5.3	6	6.4	8.4	10.6	11.4	12.9
pH (SU)	59	0	<6	0	0		6.6	7	7.1	7.3	7.6	7.8	8.4
	59	0	>9	0	0		6.6	7	7.1	7.3	7.6	7.8	8.4
Spec. conductance (umhos/cm at 25°C)	59	0	N/A				74	128	152	215	314	624	1108
Water Temperature (°C)	59	0	>32	0	0		3	7.7	10.3	16.6	24.1	27.3	31
<b>Other</b>													
TSS (mg/L)	19	3	N/A				3.8	5.5	6.2	9.5	12	13	15
Turbidity (NTU)	59	0	>50	2	3.4		2.5	4	6.1	10	16	22	60
<b>Nutrients (mg/L)</b>													
NH3 as N	43	7	N/A				0.02	0.02	0.02	0.05	0.1	0.16	0.21
NO2 + NO3 as N	43	0	N/A				0.18	0.3	0.42	0.63	2.4	3.66	7
TKN as N	43	0	N/A				0.4	0.55	0.6	0.73	1	1.36	2
Total Phosphorus	43	0	N/A				0.06	0.08	0.1	0.21	0.46	0.76	2
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				140	150	218	450	620	1350	1600
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	5	>7	0	0		2	2	2	2	3	6	6
Iron, total (Fe)	14	0	>1000	6	42.9	100	340	485	740	995	1400	2200	2300
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	6	>50	0	0		10	10	10	12	15	32	44
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
56	123	9	16										

**Key:**  
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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BIG ALAMANCE CRK AT SR 2116 AT SWEPSONSVILLE  
**Station #:** B1960000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 36.01774 **Longitude:** -79.36703 **Stream class:** C NSW  
**Agency:** UCFRBA **NC stream index:** 16-19-(4.5)

**Time period:** 01/29/2004 to 12/19/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	1	1.2		3.6	5	5.9	7	9.3	11.4	12.2
	85	0	<5	6	7.1		3.6	5	5.9	7	9.3	11.4	12.2
pH (SU)	85	0	<6	0	0		6.7	6.9	7	7.1	7.3	7.4	7.8
	85	0	>9	0	0		6.7	6.9	7	7.1	7.3	7.4	7.8
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				101	151	180	243	490	703	1177
Water Temperature (°C)	85	0	>32	0	0		3	7.5	12.3	19.9	25.2	27.1	29
<b>Other</b>													
TSS (mg/L)	60	2	N/A				1	2	4	6	10	18.8	62
Turbidity (NTU)	60	0	>50	2	3.3		2.4	3.6	5.3	10	15.6	27.7	76
<b>Nutrients (mg/L)</b>													
NH3 as N	60	15	N/A				0.02	0.02	0.02	0.05	0.09	0.16	0.61
NO2 + NO3 as N	60	0	N/A				0.02	0.41	0.5	0.7	1.64	2.46	3.86
TKN as N	60	2	N/A				0.2	0.26	0.5	0.69	1.05	1.39	2.8
Total Phosphorus	60	1	N/A				0.01	0.06	0.1	0.16	0.33	0.55	1.62
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				95	121	164	365	594	944	1330
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	24	10	>7	0	0		2	2	2	2	3	4	5
Iron, total (Fe)	25	0	>1000	13	52	100	284	393	682	1020	1280	1648	1920
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	10	>50	1	4		10	10	10	14	18	19	51
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	151	11	18										

**Key:**

# result: number of observations  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 2171 AT SAXAPAHAW  
**Station #:** B1980000  
**Latitude:** 35.94610      **Longitude:** -79.32210  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002  
**Stream class:** C NSW  
**NC stream index:** 16-(1)

**Time period:** 01/20/2004 to 12/02/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		5.5	6.8	7.6	9.2	11.3	12.7	14.6
	58	0	<5	0	0		5.5	6.8	7.6	9.2	11.3	12.7	14.6
pH (SU)	59	0	<6	0	0		6.6	7	7.4	7.6	7.9	8.6	9
	59	0	>9	0	0		6.6	7	7.4	7.6	7.9	8.6	9
Spec. conductance (umhos/cm at 25°C)	59	0	N/A				107	125	164	215	327	465	693
Water Temperature (°C)	58	0	>32	0	0		3	8.1	10.9	17.7	24.7	28.7	31.3
<b>Other</b>													
TSS (mg/L)	19	0	N/A				3	6.2	8.5	11	14	20	44
Turbidity (NTU)	59	0	>50	2	3.4		3.2	6.8	10	14	19	38	160
<b>Nutrients (mg/L)</b>													
NH3 as N	1	0	N/A				0.09	0.09	0.09	0.09	0.09	0.09	0.09
NO2 + NO3 as N	1	0	N/A				1.6	1.6	1.6	1.6	1.6	1.6	1.6
TKN as N	1	0	N/A				1.2	1.2	1.2	1.2	1.2	1.2	1.2
Total Phosphorus	1	0	N/A				0.22	0.22	0.22	0.22	0.22	0.22	0.22
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				180	230	348	560	1200	1950	2000
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	1	>7	0	0		2	2	2	3	4	5	5
Iron, total (Fe)	14	0	>1000	8	57.1	100	530	685	862	1150	1475	1950	2200
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	13	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	2	>50	0	0		10	10	12	16	20	35	36
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	56	64											
Geomean													
# > 400:				8									
% > 400: %Conf:					14								

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 1005 NR SAXAPAHAW  
**Station #:** B2000000  
**Latitude:** 35.89528      **Longitude:** -79.25849  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030002  
**Stream class:** C NSW  
**NC stream index:** 16-(1)

**Time period:** 01/30/2004 to 12/15/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	59	0	<4	1	1.7		3.6	6.9	8	9.6	11.4	13.6	14.9
	59	0	<5	1	1.7		3.6	6.9	8	9.6	11.4	13.6	14.9
pH (SU)	59	0	<6	0	0		6.8	7	7.3	7.6	7.8	8.2	8.8
	59	0	>9	0	0		6.8	7	7.3	7.6	7.8	8.2	8.8
Spec. conductance (umhos/cm at 25°C)	59	0	N/A				84	120	176	225	340	520	655
Water Temperature (°C)	59	0	>32	0	0		2	5.8	9.8	20	25.1	28.3	30.8
<b>Other</b>													
TSS (mg/L)	60	2	N/A				1	1.1	4	7	11.8	41.4	103
Turbidity (NTU)	60	0	>50	2	3.3		2.5	3.8	5.6	10.2	15.9	34.1	115
<b>Nutrients (mg/L)</b>													
NH3 as N	60	19	N/A				0.02	0.02	0.02	0.04	0.07	0.13	0.26
NO2 + NO3 as N	60	1	N/A				0.02	0.45	0.77	1.03	1.72	2.34	4.27
TKN as N	60	1	N/A				0.2	0.36	0.5	0.6	0.8	1	1.47
Total Phosphorus	60	1	N/A				0.01	0.06	0.09	0.17	0.23	0.31	0.63

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	88	9	15

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 1713 NR BYNUM

**Station #:** B2100000

**Latitude:** 35.77165

**Longitude:** -79.14497

**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002

**Stream class:** WS-IV NSW

**NC stream index:** 16-(28.5)

**Time period:** 01/13/2004 to 12/29/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	110	0	<4	0	0		6.2	7.6	8.2	10.2	11.9	13.2	14.8
	110	0	<5	0	0		6.2	7.6	8.2	10.2	11.9	13.2	14.8
pH (SU)	113	0	<6	0	0		6.1	6.6	6.9	7.4	8.3	8.7	9.3
	113	0	>9	3	2.7		6.1	6.6	6.9	7.4	8.3	8.7	9.3
Salinity (ppt)	30	0	N/A				0	0.1	0.1	0.1	0.1	0.19	0.2
Spec. conductance (umhos/cm at 25°C)	112	0	N/A				62	114	149	206	319	482	793
Water Temperature (°C)	113	0	>32	0	0		3.7	7.2	10.1	17.6	25.8	29.2	31
<b>Other</b>													
Chlorophyll a (ug/L)	4	0	>40	0	0		1	1	2	5	8	9	9
TSS (mg/L)	102	30	N/A				2.5	3.9	5.2	6.2	12	20	132
Turbidity (NTU)	60	0	>50	7	11.7	75.2	1.7	3.4	5.1	7.6	16	68.5	140
<b>Nutrients (mg/L)</b>													
NH3 as N	113	56	N/A				0.02	0.02	0.02	0.02	0.04	0.08	0.27
NO2 + NO3 as N	113	0	>10	0	0		0.12	0.45	0.63	0.9	1.4	2.18	3.3
TKN as N	113	0	N/A				0.34	0.47	0.52	0.62	0.76	0.94	1.5
Total Phosphorus	113	0	N/A				0.06	0.08	0.12	0.15	0.2	0.27	0.39
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				170	194	250	300	455	1868	2800
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	1	>7	0	0		2	2	2	3	4	6	7
Iron, total (Fe)	13	0	>1000	2	15.4	86.6	320	380	515	780	905	2760	3800
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	1	7.7		39	39	45	81	110	260	340
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	12	>25	0	0		10	10	10	10	10	11	12
Zinc, total (Zn)	13	6	>50	0	0		10	10	10	12	18	23	24

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
60	50	10	17

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf: States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 1713 NR BYNUM

**Station #:** B2100000

**Latitude:** 35.77165

**Longitude:** -79.14497

**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030002

**Stream class:** WS-IV NSW

**NC stream index:** 16-(28.5)

**Time period:** 05/12/2005 to 12/15/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	43	0	<4	0	0		6.7	8.2	8.8	10	11.9	13.6	15.5
	43	0	<5	0	0		6.7	8.2	8.8	10	11.9	13.6	15.5
pH (SU)	43	0	<6	0	0		6.4	7.1	7.7	8.2	8.6	8.9	9.5
	43	0	>9	1	2.3		6.4	7.1	7.7	8.2	8.6	8.9	9.5
Spec. conductance (umhos/cm at 25°C)	43	0	N/A				78	101	163	212	273	576	702
Water Temperature (°C)	43	0	>32	0	0		4.8	5.7	9.7	21.4	27.4	30.2	31.7
<b>Other</b>													
TSS (mg/L)	44	3	N/A				1	1	2	5	8	28.5	128
Turbidity (NTU)	44	0	>50	2	4.5		2.3	2.6	3.8	7.8	16.9	31.6	155
<b>Nutrients (mg/L)</b>													
NH3 as N	44	21	N/A				0.02	0.02	0.02	0.02	0.04	0.08	0.18
NO2 + NO3 as N	44	1	>10	0	0		0.02	0.34	0.5	0.82	1.37	2.43	3.86
TKN as N	44	0	N/A				0.25	0.32	0.43	0.58	0.7	0.95	1.85
Total Phosphorus	44	0	N/A				0.05	0.06	0.08	0.14	0.18	0.24	0.46
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	9	0	N/A				110	110	168	335	403	444	444
Arsenic, total (As)	9	9	>10	0	0		10	10	10	10	10	10	10
Cadmium, total (Cd)	9	9	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	9	9	>50	0	0		5	5	5	5	5	5	5
Copper, total (Cu)	9	6	>7	0	0		2	2	2	2	3	5	5
Iron, total (Fe)	9	0	>1000	0	0		304	304	448	607	814	994	994
Lead, total (Pb)	9	9	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	9	1	>0.012	0	0		0.001	0.001	0.002	0.002	0.004	0.005	0.005
Nickel, total (Ni)	9	8	>25	0	0		10	10	10	10	10	11	11
Zinc, total (Zn)	9	2	>50	0	0		10	10	10	14	17	22	22

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
44	60	5	11

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT US 64 NR PITTSBORO  
**Station #:** B2210000  
**Latitude:** 35.73087      **Longitude:** -79.10703  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030002  
**Stream class:** WS-IV NSW  
**NC stream index:** 16-(36.7)

**Time period:** 01/30/2004 to 04/20/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	16	0	<4	0	0		5.1	7.2	9.6	10.5	14.1	16.2	16.5
	16	0	<5	0	0		5.1	7.2	9.6	10.5	14.1	16.2	16.5
pH (SU)	16	0	<6	0	0		7.3	7.3	7.4	7.6	8.4	9	9.1
	16	0	>9	1	6.2		7.3	7.3	7.4	7.6	8.4	9	9.1
Spec. conductance (umhos/cm at 25°C)	16	1	N/A				103	118	131	180	215	281	315
Water Temperature (°C)	16	0	>32	0	0		3	3.2	7	15.7	23.5	28	30
<b>Other</b>													
TSS (mg/L)	16	0	N/A				1.8	1.9	3	5.7	12.5	41.4	61
Turbidity (NTU)	16	0	>50	0	0		3	3.7	5.6	9.9	17.5	26.5	28
<b>Nutrients (mg/L)</b>													
NH3 as N	16	6	N/A				0.02	0.02	0.02	0.03	0.09	0.14	0.19
NO2 + NO3 as N	16	0	>10	0	0		0.31	0.36	0.63	0.76	1.05	1.1	1.11
TKN as N	16	1	N/A				0.2	0.27	0.5	0.6	0.7	1.06	1.2
Total Phosphorus	16	2	N/A				0.01	0.02	0.03	0.07	0.15	0.31	0.45

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
16	86	2	12	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROBESON CRK AT BOAT ACCESS OFF SR 1943 NR HANKS CHAPEL  
**Station #:** B2450000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 35.70315 **Longitude:** -79.10027 **Stream class:** WS-IV B NSW CA  
**Agency:** NCAMBNT **NC stream index:** 16-(37.5)

**Time period:** 01/28/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	50	0	<4	1	2		3.7	7.4	8.6	10.2	11.6	13	14.6
	50	0	<5	2	4		3.7	7.4	8.6	10.2	11.6	13	14.6
pH (SU)	54	0	<6	0	0		6.4	6.6	6.8	7.2	8.2	9.2	9.4
	54	0	>9	6	11.1	70.7	6.4	6.6	6.8	7.2	8.2	9.2	9.4
Salinity (ppt)	21	0	N/A				0	0	0.1	0.1	0.1	0.1	0.1
Spec. conductance (umhos/cm at 25°C)	53	0	N/A				82	97	124	155	226	299	385
Water Temperature (°C)	54	0	>32	0	0		1	7.6	11.8	21.6	27.8	29.5	31.1
<b>Other</b>													
Chlorophyll a (ug/L)	49	1	>40	19	38.8	100	1	3	10	31	51	61	77
TSS (mg/L)	20	3	N/A				5.5	6.2	7.6	10.2	14	18.8	20
Turbidity (NTU)	54	0	>25	4	7.4		1.9	6	8.4	10	16.2	23	45
<b>Nutrients (mg/L)</b>													
NH3 as N	54	25	N/A				0.02	0.02	0.02	0.02	0.04	0.09	0.2
NO2 + NO3 as N	54	4	>10	0	0		0.02	0.02	0.18	0.41	0.66	0.86	1.3
TKN as N	54	1	N/A				0.2	0.48	0.66	0.84	1	1.15	1.5
Total Phosphorus	54	0	N/A				0.02	0.06	0.08	0.1	0.11	0.15	0.32
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				170	174	225	260	400	1680	1800
Arsenic, total (As)	13	12	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	4	>7	0	0		2	2	2	2	3	3	3
Iron, total (Fe)	13	0	>1000	2	15.4	86.6	310	322	425	700	795	1720	1800
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	0	0		37	38	69	89	130	176	180
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	12	>50	0	0		10	10	10	10	10	16	20

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
54	10	4	7

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROBESON CRK AT BOAT ACCESS OFF SR 1943 NR HANKS CHAPEL  
**Station #:** B2450000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 35.70315 **Longitude:** -79.10027 **Stream class:** WS-IV B NSW CA  
**Agency:** UCFRBA **NC stream index:** 16-(37.5)

**Time period:** 01/30/2004 to 12/15/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		5.6	7.6	8.7	10.2	11.7	12.7	16.8
	85	0	<5	0	0		5.6	7.6	8.7	10.2	11.7	12.7	16.8
pH (SU)	85	0	<6	0	0		6.6	7	7.2	7.9	8.9	9.2	9.7
	85	0	>9	18	21.2	99.9	6.6	7	7.2	7.9	8.9	9.2	9.7
Spec. conductance (umhos/cm at 25°C)	84	2	N/A				74	101	152	192	242	299	419
Water Temperature (°C)	85	0	>32	4	4.7		2	7.7	13.4	24.8	28.8	30.8	34
<b>Other</b>													
TSS (mg/L)	60	3	N/A				1	4	6.2	10	13	16.9	49
Turbidity (NTU)	60	0	>25	10	16.7	96.6	3.6	5.9	7.3	10	17.4	33.2	116
<b>Nutrients (mg/L)</b>													
NH3 as N	60	34	N/A				0.01	0.02	0.02	0.02	0.05	0.15	0.28
NO2 + NO3 as N	60	3	>10	0	0		0.02	0.06	0.19	0.38	0.61	0.91	1.7
TKN as N	60	1	N/A				0.1	0.4	0.55	0.81	1	1.43	2
Total Phosphorus	60	3	N/A				0.01	0.04	0.06	0.08	0.11	0.15	1

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	20	6	10

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NEW HOPE CRK AT NC 54 NR DURHAM  
**Station #:** B3020000  
**Latitude:** 35.91672      **Longitude:** -78.97043  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030002  
**Stream class:** WS-IV NSW  
**NC stream index:** 16-41-1-(11.5)

**Time period:** 01/30/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	25	29.4	100	1.4	2.8	3.6	5.8	8.3	11.1	12.2
	85	0	<5	31	36.5	100	1.4	2.8	3.6	5.8	8.3	11.1	12.2
pH (SU)	85	0	<6	1	1.2		5.9	6.5	6.7	6.8	7	7.2	7.6
	85	0	>9	0	0		5.9	6.5	6.7	6.8	7	7.2	7.6
Spec. conductance (umhos/cm at 25°C)	85	2	N/A				76	103	131	154	182	214	466
Water Temperature (°C)	85	0	>32	0	0		3	6.1	12.5	20.3	24.5	26.5	29.2
<b>Other</b>													
TSS (mg/L)	60	1	N/A				1	3	8	17.5	32.5	60.3	224
Turbidity (NTU)	60	0	>50	6	10	60.6	4.6	8.4	16.8	22.9	30.9	51.3	327
<b>Nutrients (mg/L)</b>													
NH3 as N	60	15	N/A				0.02	0.02	0.02	0.08	0.11	0.19	0.4
NO2 + NO3 as N	60	9	>10	0	0		0.02	0.02	0.04	0.11	0.21	0.28	0.38
TKN as N	60	2	N/A				0.2	0.3	0.4	0.61	0.8	1.08	2.5
Total Phosphorus	60	3	N/A				0.01	0.02	0.05	0.1	0.12	0.17	0.37
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				72	172	522	826	1325	2378	6500
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	24	>50	0	0		5	5	5	5	10	10	11
Copper, total (Cu)	24	8	>7	0	0		2	2	2	4	5	6	7
Iron, total (Fe)	25	0	>1000	23	92	100	980	1002	1305	1860	2555	3396	7000
Lead, total (Pb)	25	22	>25	0	0		2	2	10	10	10	10	12
Manganese, total (Mn)	25	0	>200	17	68	100	65	107	172	228	442	788	1100
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>25	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	14	>50	1	4		10	10	10	10	14	26	52
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	183	17	28	95.7									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** THIRD FORK CRK AT NC 54 NR DURHAM  
**Station #:** B3025000  
**Latitude:** 35.91867      **Longitude:** -78.95480  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030002  
**Stream class:** WS-IV NSW  
**NC stream index:** 16-41-1-12-(2)

**Time period:** 01/30/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	14	23.3	99.9	0.2	1.9	4.1	6.6	9.8	11.1	11.9
	60	0	<5	19	31.7	100	0.2	1.9	4.1	6.6	9.8	11.1	11.9
pH (SU)	60	0	<6	0	0		6.4	6.5	6.8	7	7.1	7.2	7.3
	60	0	>9	0	0		6.4	6.5	6.8	7	7.1	7.2	7.3
Spec. conductance (umhos/cm at 25°C)	60	0	N/A				114	147	186	222	269	334	1629
Water Temperature (°C)	60	0	>32	0	0		2.9	4.8	9.1	15.7	23.7	24.7	27
<b>Other</b>													
TSS (mg/L)	60	0	N/A				1	4	6	9	21.6	41.5	188
Turbidity (NTU)	60	0	>50	5	8.3		4.4	8.8	13.6	22.1	33.3	50	258
<b>Nutrients (mg/L)</b>													
NH3 as N	60	10	N/A				0.02	0.02	0.04	0.08	0.13	0.19	1.24
NO2 + NO3 as N	60	6	>10	0	0		0.02	0.02	0.07	0.15	0.25	0.44	1.4
TKN as N	60	1	N/A				0.2	0.35	0.51	0.8	1.1	1.39	2.7
Total Phosphorus	60	0	N/A				0.01	0.07	0.1	0.16	0.22	0.3	0.61
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				129	158	469	821	1040	2746	5770
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	23	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	24	5	>7	4	16.7	91.5	2	2	2	4	7	10	12
Iron, total (Fe)	25	0	>1000	24	96	100	901	1192	1425	1690	2035	3478	6290
Lead, total (Pb)	25	20	>25	0	0		2	2	10	10	10	11	15
Manganese, total (Mn)	9	0	>200	6	66.7		152	152	196	261	465	2510	2510
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	23	>25	0	0		5	5	7	10	10	10	10
Zinc, total (Zn)	25	6	>50	1	4		10	10	10	17	30	40	53
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	218	15	25	86.9									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NEW HOPE CRK AT SR 1107 NR BLANDS  
**Station #:** B3040000  
**Latitude:** 35.88474      **Longitude:** -78.96563  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002  
**Stream class:** WS-IV NSW  
**NC stream index:** 16-41-1-(11.5)

**Time period:** 01/13/2004 to 12/29/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	95	0	<4	1	1.1		3.5	5.4	6	7	8.8	10.5	12.8
	95	0	<5	3	3.2		3.5	5.4	6	7	8.8	10.5	12.8
pH (SU)	98	0	<6	0	0		6	6.4	6.6	6.8	7	7.2	7.5
	98	0	>9	0	0		6	6.4	6.6	6.8	7	7.2	7.5
Salinity (ppt)	17	0	N/A				0.1	0.1	0.1	0.1	0.1	0.2	0.2
Spec. conductance (umhos/cm at 25°C)	97	0	N/A				84	149	211	303	429	469	604
Water Temperature (°C)	98	0	>32	0	0		5.1	7.2	9.9	16.6	22.9	25.5	27
<b>Other</b>													
TSS (mg/L)	86	12	N/A				2.5	5.9	6.4	15	24	36	68
Turbidity (NTU)	53	0	>50	4	7.5		1.5	6.1	10	21	31.5	50	80
<b>Nutrients (mg/L)</b>													
NH3 as N	97	12	N/A				0.02	0.02	0.02	0.04	0.06	0.09	0.25
NO2 + NO3 as N	97	0	>10	1	1		0.17	0.82	1.6	3.6	5.3	6.94	13
TKN as N	97	0	N/A				0.54	0.66	0.77	0.92	1	1.2	1.5
Total Phosphorus	97	0	N/A				0.1	0.2	0.26	0.38	0.69	0.95	2.7
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	11	0	N/A				310	356	600	670	1700	2120	2200
Arsenic, total (As)	11	11	>10	0	0		5	5	5	5	10	10	10
Cadmium, total (Cd)	11	11	>2	0	0		1	1.2	2	2	2	2	2
Chromium, total (Cr)	11	11	>50	0	0		10	13	25	25	25	25	25
Copper, total (Cu)	11	2	>7	0	0		2	2	2	2	3	5	5
Iron, total (Fe)	11	0	>1000	8	72.7	100	850	856	900	1200	1600	2180	2200
Lead, total (Pb)	11	11	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	11	0	>200	3	27.3	98.1	110	112	120	150	250	340	360
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	11	11	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	11	0	>50	0	0		13	13	15	23	28	46	49

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
53	119	7	13	

**Key:**

# result: number of observations  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NEW HOPE CRK AT SR 1107 NR BLANDS  
**Station #:** B3040000  
**Latitude:** 35.88474      **Longitude:** -78.96563  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030002  
**Stream class:** WS-IV NSW  
**NC stream index:** 16-41-1-(11.5)

**Time period:** 01/30/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	1	1.2		3.9	5.4	6.4	7	8.4	10.3	12.6
	85	0	<5	4	4.7		3.9	5.4	6.4	7	8.4	10.3	12.6
pH (SU)	85	0	<6	0	0		6.1	6.5	6.8	7	7.2	7.3	8.5
	85	0	>9	0	0		6.1	6.5	6.8	7	7.2	7.3	8.5
Spec. conductance (umhos/cm at 25°C)	85	1	N/A				87	123	206	311	399	468	598
Water Temperature (°C)	85	0	>32	0	0		4.9	8	13.4	21.4	25.8	27.1	30
<b>Other</b>													
TSS (mg/L)	60	0	N/A				1	3	6.2	15.5	28.8	50.3	98
Turbidity (NTU)	60	0	>50	7	11.7	75.2	1.5	5	9.2	18.6	29.9	54	110
<b>Nutrients (mg/L)</b>													
NH3 as N	60	15	N/A				0.01	0.02	0.02	0.05	0.07	0.16	1.21
NO2 + NO3 as N	60	1	>10	1	1.7		0.02	0.4	1.05	2.52	4.7	7.62	11.2
TKN as N	60	1	N/A				0.2	0.5	0.61	0.9	1.04	1.27	1.8
Total Phosphorus	60	0	N/A				0.07	0.13	0.18	0.29	0.54	0.92	1.56
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				70	166	665	1050	1660	2788	5350
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	24	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	24	9	>7	1	4.2		2	2	2	4	5	6	10
Iron, total (Fe)	25	0	>1000	19	76	100	458	522	930	1500	2455	3174	3590
Lead, total (Pb)	25	23	>25	0	0		2	2	10	10	10	10	10
Manganese, total (Mn)	25	0	>200	10	40	100	28	41	92	164	262	346	665
Mercury, total (Hg)	25	16	>0.012	3	12	76.4	0.003	0.004	0.01	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	23	>25	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	1	>50	0	0		10	13	17	22	28	35	50

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	159	15	25	86.9

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CRK AT SR 1102 SEDWICK RD NR RTP  
**Station #:** B3300000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 35.88702 **Longitude:** -78.89943 **Stream class:** WS-IV NSW  
**Agency:** UCFRBA **NC stream index:** 16-41-1-17-(0.7)

**Time period:** 01/30/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	23	27.1	100	0.8	2	3.6	5.5	7.9	10.1	12.7
	85	0	<5	35	41.2	100	0.8	2	3.6	5.5	7.9	10.1	12.7
pH (SU)	85	0	<6	1	1.2		6	6.6	6.8	6.9	7	7.2	7.8
	85	0	>9	0	0		6	6.6	6.8	6.9	7	7.2	7.8
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				83	123	144	173	216	273	619
Water Temperature (°C)	85	0	>32	0	0		2.5	5.9	12.6	19.6	24.8	26	28
<b>Other</b>													
TSS (mg/L)	60	0	N/A				4	5	7	12.5	23	52.4	150
Turbidity (NTU)	60	0	>50	7	11.7	75.2	7.6	12.2	16.4	23.7	37.6	59.6	128
<b>Nutrients (mg/L)</b>													
NH3 as N	60	15	N/A				0.02	0.02	0.02	0.05	0.1	0.14	0.26
NO2 + NO3 as N	60	9	>10	0	0		0.02	0.02	0.04	0.07	0.14	0.24	3.59
TKN as N	60	1	N/A				0.2	0.31	0.5	0.7	0.9	1.2	2.3
Total Phosphorus	60	3	N/A				0.01	0.04	0.06	0.08	0.1	0.14	0.52
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	23	0	N/A				167	183	510	853	1520	2126	3030
Arsenic, total (As)	23	23	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	23	23	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	23	22	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	22	2	>7	6	27.3	99.6	2	2	3	6	8	11	12
Iron, total (Fe)	23	0	>1000	22	95.7	100	712	1050	1300	1620	2050	2926	3680
Lead, total (Pb)	23	21	>25	0	0		2	2	10	10	10	10	10
Manganese, total (Mn)	23	0	>200	15	65.2	100	59	136	171	250	501	1147	1360
Mercury, total (Hg)	13	13	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	23	21	>25	1	4.3		5	5	5	10	10	10	26
Zinc, total (Zn)	23	10	>50	1	4.3		10	10	10	10	17	24	303

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400:	%Conf:
60	175	16	27	92.3

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CRK AT SR 1100 NR NELSON  
**Station #:** B3660000  
**Latitude:** 35.87243      **Longitude:** -78.91322  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030002  
**Stream class:** WS-IV NSW  
**NC stream index:** 16-41-1-17-(0.7)

**Time period:** 01/13/2004 to 12/29/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	110	0	<4	1	0.9		3.7	5.1	5.5	6.6	8.1	9.4	11.7
	110	0	<5	7	6.4		3.7	5.1	5.5	6.6	8.1	9.4	11.7
pH (SU)	113	0	<6	0	0		6.4	6.5	6.7	7	7.4	7.5	7.7
	113	0	>9	0	0		6.4	6.5	6.7	7	7.4	7.5	7.7
Salinity (ppt)	30	0	N/A				0.1	0.1	0.1	0.2	0.3	0.3	0.3
Spec. conductance (umhos/cm at 25°C)	112	0	N/A				106	222	362	493	573	632	693
Water Temperature (°C)	113	0	>32	0	0		4.5	9.1	12.6	17.7	22.6	25	26.9
<b>Other</b>													
TSS (mg/L)	102	10	N/A				2.5	5	7.8	14	19	27.7	68
Turbidity (NTU)	60	0	>50	6	10	60.6	3.7	6.7	9.6	15	30	54.5	100
<b>Nutrients (mg/L)</b>													
NH3 as N	113	12	N/A				0.02	0.02	0.03	0.05	0.08	0.13	1.3
NO2 + NO3 as N	113	1	>10	10	8.8		0.02	0.43	0.8	1.8	3.6	9.74	29
TKN as N	113	0	N/A				0.22	0.73	0.86	0.98	1.1	1.3	2.4
Total Phosphorus	113	0	N/A				0.09	0.13	0.19	0.33	0.62	1.26	1.8
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				290	298	430	640	915	1680	1800
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	0	>7	1	7.7		2	3	3	4	5	7	8
Iron, total (Fe)	13	0	>1000	5	38.5	99.9	380	408	480	620	1300	1420	1500
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	4	30.8	99.4	58	68	95	140	245	292	300
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	0	>50	10	76.9	100	24	25	50	55	110	144	160

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	143	8	13

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CRK AT SR 1731 O KELLY CHURCH RD NR DURHAM  
**Station #:** B3670000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 35.85550 **Longitude:** -78.93968 **Stream class:** WS-IV NSW  
**Agency:** UCFRBA **NC stream index:** 16-41-1-17-(0.7)

**Time period:** 01/30/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.2	5.6	6.7	7.4	8.8	10.5	13
	85	0	<5	4	4.7		4.2	5.6	6.7	7.4	8.8	10.5	13
pH (SU)	85	0	<6	0	0		6.2	6.6	6.9	7.2	7.4	7.6	8.6
	85	0	>9	0	0		6.2	6.6	6.9	7.2	7.4	7.6	8.6
Spec. conductance (umhos/cm at 25°C)	85	1	N/A				77	145	208	403	546	610	666
Water Temperature (°C)	85	0	>32	0	0		4	8.1	12.9	21	25.1	26.9	29
<b>Other</b>													
TSS (mg/L)	60	0	N/A				3	6	10	22.7	56	100.5	895
Turbidity (NTU)	60	0	>50	23	38.3	100	3.3	9.7	16.7	30.5	83.2	140.8	1070
<b>Nutrients (mg/L)</b>													
NH3 as N	60	15	N/A				0.01	0.02	0.02	0.05	0.09	0.14	0.37
NO2 + NO3 as N	60	1	>10	1	1.7		0.02	0.17	0.53	1	2.57	6.08	19.8
TKN as N	60	1	N/A				0.2	0.5	0.7	0.9	1.08	1.49	1.8
Total Phosphorus	60	0	N/A				0.06	0.09	0.16	0.22	0.36	0.73	1.9
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	23	0	N/A				330	340	1060	1980	3600	6084	26500
Arsenic, total (As)	23	23	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	23	23	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	23	21	>50	0	0		5	5	5	5	10	10	20
Copper, total (Cu)	22	2	>7	4	18.2	93.8	2	2	3	6	7	10	13
Iron, total (Fe)	23	0	>1000	18	78.3	100	466	565	1310	2200	3490	4742	19800
Lead, total (Pb)	23	20	>25	0	0		2	2	10	10	10	10	12
Manganese, total (Mn)	23	0	>200	11	47.8	100	45	77	108	148	316	556	782
Mercury, total (Hg)	21	12	>0.012	0	0		0.001	0.002	0.003	0.2	0.2	0.2	0.2
Nickel, total (Ni)	23	21	>25	0	0		5	5	5	10	10	10	17
Zinc, total (Zn)	23	1	>50	7	30.4	99.9	10	15	24	36	61	116	142
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	189	17	28	95.7									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** MORGAN CRK AT MASON FARM WWTP ENTRANCE AT CHAPEL HILL  
**Station #:** B3899180 **Hydrologic Unit Code:** 03030002  
**Latitude:** 35.89870 **Longitude:** -79.02630 **Stream class:** WS-IV NSW  
**Agency:** UCFRBA **NC stream index:** 16-41-2-(5.5)

**Time period:** 01/30/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.1	6.3	7.2	8	9.8	11.7	13
	85	0	<5	2	2.4		4.1	6.3	7.2	8	9.8	11.7	13
pH (SU)	85	0	<6	0	0		6.4	6.7	7	7.3	7.4	7.6	7.8
	85	0	>9	0	0		6.4	6.7	7	7.3	7.4	7.6	7.8
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				90	119	138	173	232	365	802
Water Temperature (°C)	85	0	>32	0	0		3.1	6.2	12.7	19.2	24.3	25.9	29
<b>Other</b>													
TSS (mg/L)	60	4	N/A				1	2	2	4	7.8	20.3	393
Turbidity (NTU)	60	0	>50	3	5		1.1	2.4	4	5.2	9.9	25.2	258
<b>Nutrients (mg/L)</b>													
NH3 as N	60	29	N/A				0.01	0.02	0.02	0.02	0.04	0.12	0.6
NO2 + NO3 as N	60	2	>10	0	0		0.02	0.16	0.21	0.39	0.67	1.17	3.39
TKN as N	60	11	N/A				0.06	0.2	0.21	0.4	0.5	0.7	1.49
Total Phosphorus	60	3	N/A				0.01	0.02	0.03	0.05	0.08	0.18	0.42
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	1	N/A				50	67	112	166	409	1213	4600
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	24	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	13	>7	1	4		2	2	2	2	4	6	11
Iron, total (Fe)	25	0	>1000	5	20	96.7	222	492	578	679	828	2028	7290
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Manganese, total (Mn)	25	0	>200	1	4		37	58	84	110	152	194	377
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	24	>25	0	0		5	5	6	10	10	10	10
Zinc, total (Zn)	25	15	>50	0	0		10	10	10	10	13	29	38
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	202	15	25	86.9									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** MORGAN CRK AT SR 1726 NR FARRINGTON  
**Station #:** B3900000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 35.86115 **Longitude:** -79.01000 **Stream class:** WS-IV NSW  
**Agency:** NCAMBNT **NC stream index:** 16-41-2-(5.5)

**Time period:** 01/13/2004 to 12/29/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	110	0	<4	1	0.9		3.9	5.4	6	7.1	8.9	9.9	11.3
	110	0	<5	5	4.5		3.9	5.4	6	7.1	8.9	9.9	11.3
pH (SU)	112	0	<6	0	0		6.4	6.6	6.7	6.9	7.2	7.4	7.9
	112	0	>9	0	0		6.4	6.6	6.7	6.9	7.2	7.4	7.9
Salinity (ppt)	29	0	N/A				0.1	0.1	0.1	0.2	0.2	0.2	0.3
Spec. conductance (umhos/cm at 25°C)	112	0	N/A				78	219	300	420	507	564	654
Water Temperature (°C)	113	0	>32	0	0		1.9	6.6	10.6	16.5	22.4	25.3	27.1
<b>Other</b>													
TSS (mg/L)	103	16	N/A				2.8	5.6	6.2	9.5	19	35.8	71
Turbidity (NTU)	60	0	>50	1	1.7		3.2	5.1	7.3	12	18.8	34.7	65
<b>Nutrients (mg/L)</b>													
NH3 as N	114	3	N/A				0.02	0.04	0.06	0.16	0.25	0.42	1.2
NO2 + NO3 as N	114	0	>10	13	11.4	75.2	0.1	1.95	3.55	5.7	8.65	11	15
TKN as N	114	0	N/A				0.39	0.7	0.81	0.97	1.1	1.3	1.9
Total Phosphorus	114	0	N/A				0.08	0.11	0.14	0.2	0.34	0.6	1.5
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				220	240	285	330	750	1144	1300
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	0	>7	0	0		2	2	3	4	5	6	6
Iron, total (Fe)	13	0	>1000	2	15.4	86.6	320	372	525	760	895	1380	1500
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	2	15.4	86.6	48	52	130	180	200	330	350
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	0	>50	1	7.7		15	17	20	23	35	48	54

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
61	171	10	16

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** MORGAN CRK AT SR 1726 NR FARRINGTON

**Station #:** B3900000

**Hydrologic Unit Code:** 03030002

**Latitude:** 35.86115

**Longitude:** -79.01000

**Stream class:** WS-IV NSW

**Agency:** UCFRBA

**NC stream index:** 16-41-2-(5.5)

**Time period:** 01/30/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.6	5.7	6.2	7.1	8.8	10.1	12.9
	85	0	<5	2	2.4		4.6	5.7	6.2	7.1	8.8	10.1	12.9
pH (SU)	85	0	<6	0	0		6	6.8	7	7.2	7.4	7.5	8.6
	85	0	>9	0	0		6	6.8	7	7.2	7.4	7.5	8.6
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				115	212	295	414	529	577	719
Water Temperature (°C)	85	0	>32	0	0		4.3	7.7	13.1	20.7	24.8	26.8	29
<b>Other</b>													
TSS (mg/L)	60	1	N/A				1	2	5	9	21	47.5	243
Turbidity (NTU)	60	0	>50	3	5		2.7	4.1	5.2	8.7	14.9	27.8	333
<b>Nutrients (mg/L)</b>													
NH3 as N	58	4	N/A				0.02	0.04	0.06	0.15	0.26	0.36	0.93
NO2 + NO3 as N	60	1	>10	8	13.3	85.8	0.02	0.77	2.47	5.82	8.64	11.1	18.2
TKN as N	58	2	N/A				0.02	0.39	0.69	0.9	1	1.21	1.6
Total Phosphorus	60	0	N/A				0.03	0.08	0.12	0.18	0.28	0.64	1.42
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				89	146	212	524	806	1524	5870
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	24	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	24	4	>7	0	0		2	2	2	3	5	6	6
Iron, total (Fe)	25	0	>1000	12	48	100	270	388	530	960	1510	2312	9160
Lead, total (Pb)	25	23	>25	0	0		2	2	10	10	10	10	10
Manganese, total (Mn)	25	0	>200	12	48	100	48	73	154	200	298	433	690
Mercury, total (Hg)	25	16	>0.012	3	12	76.4	0.003	0.004	0.01	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>25	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	2	>50	1	4		10	11	14	24	33	38	55
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	236	16	27	92.3									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV BELOW JORDAN DAM NR MONCURE  
**Station #:** B4050000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 35.65342 **Longitude:** -79.06728 **Stream class:** WS-IV  
**Agency:** NCAMBNT **NC stream index:** 16-(42)  
**Time period:** 01/28/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	49	0	<4	0	0		4.7	6	6.8	8.4	10.8	12.7	14.3
	49	0	<5	1	2		4.7	6	6.8	8.4	10.8	12.7	14.3
pH (SU)	51	0	<6	1	2		5.7	6.4	6.5	6.8	7.2	7.4	8.8
	51	0	>9	0	0		5.7	6.4	6.5	6.8	7.2	7.4	8.8
Salinity (ppt)	20	0	N/A				0	0.1	0.1	0.1	0.1	0.1	0.1
Spec. conductance (umhos/cm at 25°C)	52	0	N/A				114	128	147	176	200	222	274
Water Temperature (°C)	53	0	>32	0	0		4	6.5	10.4	17.7	24.6	27.4	28.9
<b>Other</b>													
TSS (mg/L)	20	3	N/A				2.5	6.2	7	9.2	14.2	19.8	40
Turbidity (NTU)	53	0	>50	1	1.9		3.3	4.6	6	11	15.5	23	65
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				150	166	200	260	510	2584	3800
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	7	>7	0	0		2	2	2	2	2	5	6
Iron, total (Fe)	13	0	>1000	2	15.4	86.6	180	208	325	700	990	2420	3300
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	5	38.5	99.9	59	63	130	170	220	624	880
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	7	>50	0	0		10	10	10	10	15	23	25

**Fecal Coliform Screening(#/100mL)**  
 # results: 53      Geomean: 8      # > 400: 2      % > 400: %Conf: 4

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf: States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAW RIV AT SR 1011 OLD US 1 NR HAYWOOD  
**Station #:** B4080000 **Hydrologic Unit Code:** 03030002  
**Latitude:** 35.61642 **Longitude:** -79.05688 **Stream class:** WS-IV  
**Agency:** UCFRBA **NC stream index:** 16-(42)

**Time period:** 01/30/2004 to 12/15/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	3	3.5		3.8	5.8	6.7	7.8	10.6	12.1	14.4
	85	0	<5	4	4.7		3.8	5.8	6.7	7.8	10.6	12.1	14.4
pH (SU)	85	0	<6	0	0		6.6	6.8	7	7.2	7.4	7.6	7.8
	85	0	>9	0	0		6.6	6.8	7	7.2	7.4	7.6	7.8
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				86	135	160	185	208	225	271
Water Temperature (°C)	85	0	>32	0	0		4	8.1	12.4	22.2	26.2	28	31
<b>Other</b>													
TSS (mg/L)	60	0	N/A				1	5	6.2	9	11.8	17.8	47
Turbidity (NTU)	60	0	>50	1	1.7		3.4	4.5	6.8	10.1	15.2	20.2	51.9
<b>Nutrients (mg/L)</b>													
NH3 as N	60	11	N/A				0.01	0.02	0.03	0.08	0.13	0.27	0.7
NO2 + NO3 as N	60	1	>10	0	0		0.02	0.08	0.24	0.38	0.6	0.8	1.12
TKN as N	60	0	N/A				0.3	0.49	0.6	0.7	0.8	0.95	1.4
Total Phosphorus	60	0	N/A				0.02	0.03	0.05	0.06	0.08	0.13	0.38
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				67	109	160	323	552	829	1270
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	11	>7	1	4		2	2	2	2	3	4	13
Iron, total (Fe)	25	0	>1000	7	28	99.8	155	236	302	727	1050	1432	2010
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Manganese, total (Mn)	25	0	>200	2	8		57	73	90	156	183	219	793
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>25	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	18	>50	0	0		10	10	10	10	11	20	28

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	23	5	8	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** W FORK DEEP RIV AT SR 1818 NR HIGH POINT  
**Station #:** B4210000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 36.04658 **Longitude:** -80.01407 **Stream class:** WS-IV CA\*  
**Agency:** NCAMBNT **NC stream index:** 17-3-(0.7)

**Time period:** 01/13/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		6.1	7	7.7	9.1	10.9	11.8	13.8
	58	0	<5	0	0		6.1	7	7.7	9.1	10.9	11.8	13.8
pH (SU)	58	0	<6	0	0		6.5	7	7.2	7.4	7.5	7.6	8.1
	58	0	>9	0	0		6.5	7	7.2	7.4	7.5	7.6	8.1
Spec. conductance (umhos/cm at 25°C)	58	0	N/A				51	84	92	96	102	106	134
Water Temperature (°C)	58	0	>32	0	0		4.7	6	9.5	16.5	20.6	22.8	25.1
<b>Other</b>													
Chlorophyll a (ug/L)	55	16	>40	0	0		1	1	1	1	3	6	8
TSS (mg/L)	19	5	N/A				2.5	3.2	6	6.2	11	37	525
Turbidity (NTU)	60	0	>50	5	8.3		2.8	5.2	7.2	9.1	13	47.8	400
<b>Nutrients (mg/L)</b>													
NH3 as N	60	37	N/A				0.02	0.02	0.02	0.02	0.02	0.04	0.1
NO2 + NO3 as N	60	1	>10	0	0		0.02	0.33	0.43	0.5	0.56	0.59	1
TKN as N	60	25	N/A				0.2	0.2	0.2	0.21	0.26	0.43	1.5
Total Phosphorus	60	0	N/A				0.02	0.02	0.03	0.04	0.05	0.11	0.8
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				190	206	255	370	620	1660	1700
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	11	>7	0	0		2	2	2	2	2	4	5
Iron, total (Fe)	13	0	>1000	6	46.2	100	730	750	830	1000	1250	2120	2600
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	3	23.1	96.6	130	134	150	180	205	242	250
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	8	>50	1	7.7		10	10	10	10	22	66	92

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
59	191	9	15

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** E FORK DEEP RIV AT SR 1541 NR HIGH POINT  
**Station #:** B4240000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 36.03727 **Longitude:** -79.94576 **Stream class:** WS-IV\*  
**Agency:** NCAMBNT **NC stream index:** 17-2-(0.3)

**Time period:** 01/13/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		6.3	7	7.9	9	11.6	13.5	14.8
	58	0	<5	0	0		6.3	7	7.9	9	11.6	13.5	14.8
pH (SU)	58	0	<6	0	0		7	7.1	7.3	7.5	7.6	7.8	8.6
	58	0	>9	0	0		7	7.1	7.3	7.5	7.6	7.8	8.6
Spec. conductance (umhos/cm at 25°C)	58	0	N/A				41	87	117	134	150	173	219
Water Temperature (°C)	58	0	>32	0	0		4	6.2	10	17.6	22.2	25.5	27.6
<b>Other</b>													
TSS (mg/L)	19	4	N/A				2.8	4	4.8	6.2	30	45	187
Turbidity (NTU)	60	0	>50	7	11.7	75.2	2.4	4.5	5.4	8.7	22.5	59.5	310
<b>Nutrients (mg/L)</b>													
NH3 as N	60	41	N/A				0.02	0.02	0.02	0.02	0.02	0.05	0.4
NO2 + NO3 as N	60	1	>10	0	0		0.02	0.1	0.15	0.21	0.3	0.4	0.58
TKN as N	60	7	N/A				0.2	0.2	0.24	0.32	0.39	0.6	0.94
Total Phosphorus	60	0	N/A				0.02	0.02	0.03	0.04	0.06	0.1	0.48
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				200	208	265	490	2850	4880	5800
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	6	>7	1	7.7		2	2	2	2	4	7	8
Iron, total (Fe)	13	0	>1000	4	30.8	99.4	470	474	580	800	2400	3400	3600
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	0	0		62	62	84	96	110	146	170
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	7	>50	1	7.7		10	10	10	10	19	81	110

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
59	140	9	15

**Key:**

# result: number of observations  
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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 1113 KIVETT DR NR HAYWORTH SPRING  
**Station #:** B4350000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.95942 **Longitude:** -79.90605 **Stream class:** WS-IV CA\*  
**Agency:** UCFRBA **NC stream index:** 17-(4)

**Time period:** 01/23/2004 to 12/13/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	86	0	<4	10	11.6	76.1	1	3.6	5.7	7.2	9.3	11.5	13.3
	86	0	<5	12	14	91.4	1	3.6	5.7	7.2	9.3	11.5	13.3
pH (SU)	86	0	<6	0	0		6.3	6.8	6.9	7.1	7.2	7.4	7.7
	86	0	>9	0	0		6.3	6.8	6.9	7.1	7.2	7.4	7.7
Spec. conductance (umhos/cm at 25°C)	86	0	N/A				91	104	124	148	190	241	327
Water Temperature (°C)	85	0	>32	0	0		2	6.3	11.9	20.1	24.2	26.3	28.1
<b>Other</b>													
TSS (mg/L)	60	6	N/A				1	1	3	6.5	11	19.7	32
Turbidity (NTU)	61	0	>50	0	0		1.7	3.4	5.5	8.6	16.1	29.5	46
<b>Nutrients (mg/L)</b>													
NH3 as N	60	17	N/A				0.02	0.02	0.02	0.04	0.08	0.14	0.24
NO2 + NO3 as N	60	4	>10	0	0		0.02	0.08	0.16	0.29	0.4	0.76	1.99
TKN as N	60	5	N/A				0.2	0.26	0.31	0.4	0.6	0.85	1.2
Total Phosphorus	61	10	N/A				0.01	0.02	0.02	0.03	0.05	0.08	0.39
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	26	1	N/A				50	80	172	366	630	1236	2250
Arsenic, total (As)	26	26	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	26	26	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	26	26	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	26	14	>7	0	0		2	2	2	2	3	5	6
Iron, total (Fe)	26	0	>1000	6	23.1	98.8	308	382	506	643	1038	1635	1900
Lead, total (Pb)	26	26	>25	0	0		2	2	10	10	10	10	10
Manganese, total (Mn)	26	0	>200	3	11.5	74.1	46	49	72	90	138	225	484
Mercury, total (Hg)	17	17	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	26	25	>25	0	0		5	5	6	10	10	10	10
Zinc, total (Zn)	26	21	>50	0	0		10	10	10	10	10	14	17

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	101	10	17

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** RICHLAND CRK AT SR 1154 KERSEY VALLEY RD NR HIGH POINT  
**Station #:** B4380000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.94100 **Longitude:** -79.93220 **Stream class:** WS-IV CA\*  
**Agency:** UCFRBA **NC stream index:** 17-7-(4)

**Time period:** 01/23/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	86	0	<4	0	0		5	6.5	7.3	8.7	10.2	12	13.9
	86	0	<5	0	0		5	6.5	7.3	8.7	10.2	12	13.9
pH (SU)	86	0	<6	1	1.2		5.8	6.7	7	7.1	7.3	7.5	7.8
	86	0	>9	0	0		5.8	6.7	7	7.1	7.3	7.5	7.8
Spec. conductance (umhos/cm at 25°C)	86	0	N/A				38	104	153	180	195	214	296
Water Temperature (°C)	86	0	>32	0	0		1.9	6.6	12.1	20	24.1	25.5	28.7
<b>Other</b>													
TSS (mg/L)	60	12	N/A				1	1	1.2	2.1	4	16.7	209
Turbidity (NTU)	60	0	>50	3	5		1	1.6	2.5	4.6	9.9	33.8	207
<b>Nutrients (mg/L)</b>													
NH3 as N	60	3	N/A				0.02	0.05	0.06	0.1	0.16	0.23	0.64
NO2 + NO3 as N	60	1	>10	0	0		0.02	0.21	0.29	0.4	0.61	0.72	1.45
TKN as N	60	8	N/A				0.2	0.2	0.23	0.32	0.5	0.82	1.7
Total Phosphorus	60	36	N/A				0.01	0.02	0.02	0.02	0.03	0.09	0.32
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	3	N/A				50	50	120	243	355	926	1520
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	13	>7	1	4		2	2	2	2	3	6	8
Iron, total (Fe)	25	0	>1000	3	12	76.4	127	278	368	550	850	1426	1950
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Manganese, total (Mn)	10	0	>200	0	0		37	38	72	91	110	140	140
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>25	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	16	>50	0	0		10	10	10	10	16	37	46
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	190	18	30	97.8									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** RICHLAND CRK AT SR 1145 NR HIGH POINT  
**Station #:** B4410000      **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.94100      **Longitude:** -79.90200      **Stream class:** WS-IV CA\*  
**Agency:** UCFRBA      **NC stream index:** 17-7-(4)

**Time period:** 05/13/2005 to 05/27/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	53	0	<4	2	3.8		3.1	5.6	7.5	8	9.1	10.1	11.2
	53	0	<5	4	7.5		3.1	5.6	7.5	8	9.1	10.1	11.2
pH (SU)	53	0	<6	0	0		6.5	6.8	6.9	7	7.1	7.2	7.6
	53	0	>9	0	0		6.5	6.8	6.9	7	7.1	7.2	7.6
Spec. conductance (umhos/cm at 25°C)	53	0	N/A				79	149	280	389	452	486	610
Water Temperature (°C)	53	0	>32	0	0		7.1	10.9	15.2	22.8	24.9	26.6	27.9
<b>Other</b>													
TSS (mg/L)	37	3	N/A				1	1	2	4	9.5	17.8	38
Turbidity (NTU)	37	0	>50	2	5.4		1.3	1.8	2.3	4.2	11.1	26.6	89.8
<b>Nutrients (mg/L)</b>													
NH3 as N	37	22	N/A				0.02	0.02	0.02	0.02	0.04	0.13	2.12
NO2 + NO3 as N	37	0	>10	0	0		0.02	0.09	0.24	1.72	2.61	3.15	5.37
TKN as N	37	0	N/A				0.3	0.4	0.54	0.7	1.02	1.15	2.46
Total Phosphorus	37	0	N/A				0.03	0.05	0.07	0.09	0.33	2.54	4.38
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	9	0	N/A				54	54	142	262	339	623	623
Arsenic, total (As)	9	9	>10	0	0		10	10	10	10	10	10	10
Cadmium, total (Cd)	9	9	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	9	9	>50	0	0		5	5	5	5	5	5	5
Copper, total (Cu)	9	0	>7	0	0		2	2	2	3	4	5	5
Iron, total (Fe)	9	0	>1000	2	22.2		117	117	270	350	950	1390	1390
Lead, total (Pb)	9	9	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	9	0	>200	2	22.2		32	32	74	104	176	372	372
Nickel, total (Ni)	9	9	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	9	1	>50	1	11.1		10	10	19	34	48	51	51
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	37	Geomean	45	# > 400:	5	% > 400:	14						

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 1129 NR HIGH POINT  
**Station #:** B4440000  
**Latitude:** 35.93774      **Longitude:** -79.89008  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030003  
**Stream class:** WS-IV CA\*  
**NC stream index:** 17-(4)

**Time period:** 01/13/2004 to 12/14/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	35	0	<4	0	0		5.1	6.1	7.3	8.4	10.1	11.1	11.7
	35	0	<5	0	0		5.1	6.1	7.3	8.4	10.1	11.1	11.7
pH (SU)	35	0	<6	0	0		6.5	6.9	7.1	7.3	7.4	7.6	8
	35	0	>9	0	0		6.5	6.9	7.1	7.3	7.4	7.6	8
Spec. conductance (umhos/cm at 25°C)	35	0	N/A				81	159	225	308	363	446	550
Water Temperature (°C)	35	0	>32	0	0		6.8	8.2	12.7	19.8	24.3	28.5	30
<b>Other</b>													
TSS (mg/L)	12	0	N/A				3.8	4	4.8	5.2	6	7.8	8.5
Turbidity (NTU)	35	0	>50	0	0		2.4	3.6	4.8	7.7	11	20.2	30
<b>Nutrients (mg/L)</b>													
NH3 as N	35	7	N/A				0.02	0.02	0.02	0.04	0.08	0.1	0.12
NO2 + NO3 as N	35	0	>10	1	2.9		0.84	1.05	1.3	1.7	3.5	5.3	11
TKN as N	35	0	N/A				0.56	0.59	0.72	0.79	0.87	0.98	1.3
Total Phosphorus	35	0	N/A				0.06	0.06	0.08	0.41	0.93	1.4	1.8
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				190	199	230	245	342	459	480
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	9	10	10
Cadmium, total (Cd)	12	12	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	12	0	>7	0	0		3	3	4	4	5	5	5
Iron, total (Fe)	12	0	>1000	0	0		340	352	435	530	575	604	610
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	10	0	>200	0	0		64	64	72	102	122	139	140
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	0	>50	0	0		18	20	26	31	34	45	48

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
35	60	2	6

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 1129 NR HIGH POINT  
**Station #:** B4440000  
**Latitude:** 35.93774      **Longitude:** -79.89008  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030003  
**Stream class:** WS-IV CA\*  
**NC stream index:** 17-(4)

**Time period:** 01/23/2004 to 04/19/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	21	0	<4	1	4.8		3.8	4.1	5.5	8.4	10.1	10.9	11.6
	21	0	<5	4	19	94.8	3.8	4.1	5.5	8.4	10.1	10.9	11.6
pH (SU)	21	0	<6	0	0		6.4	6.6	6.8	6.9	7	7.1	7.3
	21	0	>9	0	0		6.4	6.6	6.8	6.9	7	7.1	7.3
Spec. conductance (umhos/cm at 25°C)	21	0	N/A				145	150	238	278	374	431	459
Water Temperature (°C)	21	0	>32	0	0		6	6.4	10.3	20	24.3	27.6	28
<b>Other</b>													
TSS (mg/L)	16	1	N/A				1	1	4	7.1	11.2	15.3	16
Turbidity (NTU)	16	0	>50	0	0		2	2.7	5.5	8.5	18.8	33	33.3
<b>Nutrients (mg/L)</b>													
NH3 as N	16	0	N/A				0.03	0.04	0.06	0.1	0.16	0.36	0.51
NO2 + NO3 as N	16	0	>10	1	6.2		0.41	0.84	1.68	2.67	4.14	9.09	16
TKN as N	16	1	N/A				0.2	0.41	0.7	0.85	1.25	1.8	1.8
Total Phosphorus	16	0	N/A				0.03	0.05	0.19	0.53	0.87	1.79	2.02
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	16	0	N/A				74	94	194	323	624	1406	1490
Arsenic, total (As)	16	16	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	16	16	>2	0	0		0.5	0.5	0.6	2	2	2	2
Chromium, total (Cr)	16	16	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	16	1	>7	0	0		2	3	4	5	5	7	7
Iron, total (Fe)	16	0	>1000	5	31.2	99.7	350	352	492	690	1148	1531	1580
Lead, total (Pb)	16	16	>25	0	0		2	2	2	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	16	15	>25	0	0		5	5	5	10	10	12	16
Zinc, total (Zn)	16	2	>50	0	0		10	10	13	18	27	34	37
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
15	189	4	27	83.6									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** RANDLEMAN LAKE AT SR 1921 NR RANDLEMAN  
**Station #:** B4614500 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.90618 **Longitude:** -79.85648 **Stream class:** WS-IV CA \*  
**Agency:** UCFRBA **NC stream index:** 17-(4)

**Time period:** 06/12/2008 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	11	0	<4	0	0		5.1	5.2	6.5	8.2	9.3	10.1	10.3
	11	0	<5	0	0		5.1	5.2	6.5	8.2	9.3	10.1	10.3
pH (SU)	11	0	<6	0	0		6.8	6.9	7.1	7.7	8.2	8.7	8.7
	11	0	>9	0	0		6.8	6.9	7.1	7.7	8.2	8.7	8.7
Spec. conductance (umhos/cm at 25°C)	11	0	N/A				157	158	165	208	223	296	311
Water Temperature (°C)	11	0	>32	0	0		8.4	9.6	21.8	27.4	30	30.9	31
<b>Other</b>													
TSS (mg/L)	7	0	N/A				3	3	3	4	8	9	9
Turbidity (NTU)	7	0	>25	0	0		3.3	3.3	3.7	5.4	6.8	8.7	8.7
<b>Nutrients (mg/L)</b>													
NH3 as N	7	4	N/A				0.02	0.02	0.02	0.02	0.1	0.13	0.13
NO2 + NO3 as N	7	4	>10	0	0		0.02	0.02	0.02	0.02	0.04	0.12	0.12
TKN as N	7	1	N/A				0.2	0.2	0.49	0.75	1.19	1.2	1.2
Total Phosphorus	7	1	N/A				0.02	0.02	0.02	0.03	0.04	0.04	0.04

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
7	11	0	0	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level: applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 1921 NR RANDLEMAN  
**Station #:** B4615000  
**Latitude:** 35.90431      **Longitude:** -79.85419  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030003  
**Stream class:** WS-IV CA\*  
**NC stream index:** 17-(4)

**Time period:** 01/13/2004 to 12/14/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	35	0	<4	0	0		6.5	6.8	7.5	9.5	11.3	12.6	13.9
	35	0	<5	0	0		6.5	6.8	7.5	9.5	11.3	12.6	13.9
pH (SU)	35	0	<6	0	0		6.8	7.1	7.4	7.5	7.7	8.3	8.7
	35	0	>9	0	0		6.8	7.1	7.4	7.5	7.7	8.3	8.7
Spec. conductance (umhos/cm at 25°C)	35	0	N/A				117	153	199	254	312	388	476
Water Temperature (°C)	34	0	>32	1	2.9		6	7.2	12	19.2	24.4	29.7	32.5
<b>Other</b>													
TSS (mg/L)	12	0	N/A				4	4.1	5.8	7.8	10.2	18	21
Turbidity (NTU)	35	0	>50	1	2.9		2.2	2.4	5.2	7.1	11	24.6	85
<b>Nutrients (mg/L)</b>													
NH3 as N	35	15	N/A				0.02	0.02	0.02	0.02	0.04	0.06	0.08
NO2 + NO3 as N	35	1	>10	0	0		0.02	0.2	0.89	1.2	2.8	3.88	6.9
TKN as N	35	0	N/A				0.51	0.58	0.64	0.69	0.8	1.1	1.5
Total Phosphorus	35	0	N/A				0.05	0.07	0.08	0.14	0.69	1.01	1.9
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				160	178	232	305	530	1011	1200
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	9	10	10
Cadmium, total (Cd)	12	12	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	12	0	>7	0	0		2	2	3	4	4	6	6
Iron, total (Fe)	12	0	>1000	1	8.3		420	423	468	615	762	1064	1100
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	10	0	>200	1	10	73.6	52	54	69	84	132	314	330
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	1	>50	1	8.3		10	12	17	22	26	100	130

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
35	49	1	3	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** MUDDY CRK AT SR 1922 NR GLENOLA  
**Station #:** B4625000  
**Latitude:** 35.88364      **Longitude:** -79.89502  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030003  
**Stream class:** WS-IV\*  
**NC stream index:** 17-9-(1)

**Time period:** 05/17/2005 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	40	0	<4	2	5		3	5.1	6.6	8.5	10.4	12.4	12.6
	40	0	<5	3	7.5		3	5.1	6.6	8.5	10.4	12.4	12.6
pH (SU)	40	0	<6	0	0		6.4	6.6	6.9	7.1	7.3	7.5	7.9
	40	0	>9	0	0		6.4	6.6	6.9	7.1	7.3	7.5	7.9
Spec. conductance (umhos/cm at 25°C)	40	0	N/A				82	126	134	147	160	170	190
Water Temperature (°C)	40	0	>32	0	0		2.3	5	9.1	15.8	21.3	24.3	27.9
<b>Other</b>													
TSS (mg/L)	40	7	N/A				1	1	2	3.5	10.2	23.2	56
Turbidity (NTU)	40	0	>50	1	2.5		1.4	2.5	3.5	7	11.9	25	59
<b>Nutrients (mg/L)</b>													
NH3 as N	40	23	N/A				0.02	0.02	0.02	0.02	0.04	0.06	0.15
NO2 + NO3 as N	40	6	>10	0	0		0.02	0.02	0.05	0.22	0.37	0.5	0.6
TKN as N	40	10	N/A				0.2	0.2	0.2	0.31	0.52	0.77	1.22
Total Phosphorus	40	3	N/A				0.02	0.02	0.03	0.05	0.08	0.12	0.28

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
40	154	6	15

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level: applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** MUDDY CRK AT SR 1929 CEDAR SQUARE RD NR GLENOLA  
**Station #:** B4626000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.87490 **Longitude:** -79.87690 **Stream class:** WS-IV\*  
**Agency:** UCFRBA **NC stream index:** 17-9-(1)

**Time period:** 01/23/2004 to 09/19/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	19	0	<4	0	0		5	5.2	6.6	7.9	11.7	12.3	12.7
	19	0	<5	0	0		5	5.2	6.6	7.9	11.7	12.3	12.7
pH (SU)	19	0	<6	0	0		6.4	6.4	6.9	7.2	7.3	7.5	7.5
	19	0	>9	0	0		6.4	6.4	6.9	7.2	7.3	7.5	7.5
Spec. conductance (umhos/cm at 25°C)	19	0	N/A				98	110	141	156	165	184	185
Water Temperature (°C)	19	0	>32	0	0		2	4	8.5	15.7	22	25.4	26
<b>Other</b>													
TSS (mg/L)	19	2	N/A				1	1	2	4	6.6	24	31
Turbidity (NTU)	19	0	>50	1	5.3		1.6	2	4	6.8	10.9	41.9	54
<b>Nutrients (mg/L)</b>													
NH3 as N	19	7	N/A				0.02	0.02	0.02	0.04	0.07	0.17	0.18
NO2 + NO3 as N	19	0	>10	0	0		0.04	0.07	0.33	0.41	0.51	0.6	1.11
TKN as N	19	1	N/A				0.2	0.2	0.3	0.47	0.8	1.2	10.5
Total Phosphorus	19	3	N/A				0.01	0.01	0.02	0.04	0.1	0.38	0.4
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	1	0	N/A				234	234	234	234	234	234	234
Arsenic, total (As)	1	1	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	1	1	>2	0	0		1	1	1	1	1	1	1
Chromium, total (Cr)	1	1	>50	0	0		10	10	10	10	10	10	10
Copper, total (Cu)	1	0	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	1	0	>1000	1	100		1150	1150	1150	1150	1150	1150	1150
Lead, total (Pb)	1	1	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	1	1	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	1	1	>25	0	0		5	5	5	5	5	5	5
Zinc, total (Zn)	1	1	>50	0	0		10	10	10	10	10	10	10
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
18	312	7	39	98.4									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT US 220 BUS MAIN ST AT RANDLEMAN  
**Station #:** B4770500 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.82330 **Longitude:** -79.80330 **Stream class:** C  
**Agency:** UCFRBA **NC stream index:** 17-(10.5)

**Time period:** 01/23/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.7	6.2	7	8.3	10	12.3	13.9
	85	0	<5	3	3.5		4.7	6.2	7	8.3	10	12.3	13.9
pH (SU)	85	0	<6	0	0		6.3	6.7	6.9	7.2	7.5	7.9	8.9
	85	0	>9	0	0		6.3	6.7	6.9	7.2	7.5	7.9	8.9
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				95	131	152	195	242	329	543
Water Temperature (°C)	85	0	>32	0	0		4	8.2	13.2	19	24.1	26.2	30.1
<b>Other</b>													
TSS (mg/L)	60	1	N/A				1	2.1	4	7	10	18.4	56
Turbidity (NTU)	60	0	>50	3	5		1.8	2.5	4.1	7.6	12.9	20	80
<b>Nutrients (mg/L)</b>													
NH3 as N	60	8	N/A				0.01	0.02	0.05	0.11	0.19	0.34	0.63
NO2 + NO3 as N	60	1	N/A				0.02	0.15	0.3	0.45	0.97	1.65	3.15
TKN as N	60	3	N/A				0.2	0.36	0.45	0.66	0.8	1.1	1.27
Total Phosphorus	60	6	N/A				0.01	0.02	0.04	0.08	0.17	0.66	2.51
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	1	0	N/A				1100	1100	1100	1100	1100	1100	1100
Arsenic, total (As)	1	1	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	1	1	>2	0	0		1	1	1	1	1	1	1
Chromium, total (Cr)	1	1	>50	0	0		10	10	10	10	10	10	10
Copper, total (Cu)	1	0	>7	0	0		7	7	7	7	7	7	7
Iron, total (Fe)	1	0	>1000	1	100		1770	1770	1770	1770	1770	1770	1770
Lead, total (Pb)	1	1	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	1	1	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	1	1	>88	0	0		5	5	5	5	5	5	5
Zinc, total (Zn)	1	1	>50	0	0		10	10	10	10	10	10	10
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
59	87	10	17										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 2122 AT WORTHVILLE  
**Station #:** B4800000  
**Latitude:** 35.80070      **Longitude:** -79.77623  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030003  
**Stream class:** C  
**NC stream index:** 17-(10.5)

**Time period:** 01/13/2004 to 03/21/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	15	0	<4	0	0		7.2	7.7	8.4	10.3	12.1	14.3	14.5
	15	0	<5	0	0		7.2	7.7	8.4	10.3	12.1	14.3	14.5
pH (SU)	15	0	<6	0	0		7	7	7.5	7.6	7.7	7.8	7.9
	15	0	>9	0	0		7	7	7.5	7.6	7.7	7.8	7.9
Spec. conductance (umhos/cm at 25°C)	15	0	N/A				104	112	164	187	200	250	254
Water Temperature (°C)	15	0	>32	0	0		3	4.2	8	11.2	21.7	26.8	27.6
<b>Other</b>													
TSS (mg/L)	5	0	N/A				4	4	5	10	14	16	16
Turbidity (NTU)	15	0	>50	2	13.3	81.6	6.9	7.3	9.4	18	24	113	200
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	5	0	N/A				280	280	395	650	800	870	870
Arsenic, total (As)	5	5	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	5	5	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	5	5	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	5	0	>7	0	0		3	3	3	4	4	4	4
Iron, total (Fe)	5	0	>1000	3	60		780	780	815	1200	1250	1300	1300
Lead, total (Pb)	5	5	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	5	5	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	5	5	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	5	0	>50	0	0		11	11	12	15	24	29	29

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
15	182	3	20

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 2122 AT WORTHVILLE  
**Station #:** B4800000  
**Latitude:** 35.80070      **Longitude:** -79.77623  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030003  
**Stream class:** C  
**NC stream index:** 17-(10.5)

**Time period:** 01/23/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		5	7.3	8.1	8.8	10.4	11.9	13.4
	85	0	<5	0	0		5	7.3	8.1	8.8	10.4	11.9	13.4
pH (SU)	85	0	<6	1	1.2		5.7	6.9	7.1	7.4	7.6	7.7	7.9
	85	0	>9	0	0		5.7	6.9	7.1	7.4	7.6	7.7	7.9
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				87	129	150	187	224	323	485
Water Temperature (°C)	85	0	>32	0	0		4	7.8	13.1	19.7	24.4	26.8	29.7
<b>Other</b>													
Chlorophyll a (ug/L)	5	0	>40	0	0		2	2	3	5	23	26	26
TSS (mg/L)	61	2	N/A				1	2.2	4	6	9.3	14	71
Turbidity (NTU)	61	0	>50	3	4.9		3	4.2	6	8.5	16.1	25	80
<b>Nutrients (mg/L)</b>													
NH3 as N	49	3	N/A				0.02	0.03	0.06	0.11	0.14	0.28	0.47
NO2 + NO3 as N	49	1	N/A				0.02	0.15	0.3	0.44	0.72	1.02	2.44
TKN as N	49	1	N/A				0.2	0.31	0.43	0.6	0.73	0.94	1.7
Total Phosphorus	50	0	N/A				0.04	0.05	0.06	0.1	0.16	0.59	0.81
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				99	181	252	386	962	1492	3010
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	4	>7	0	0		2	2	2	4	5	6	7
Iron, total (Fe)	25	0	>1000	12	48	100	339	560	722	1000	1745	2241	3600
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	15	15	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	15	>50	0	0		10	10	10	10	13	16	41
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
59	200	14	24	81.2									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HASKETT CRK AT US 220 BUS NR NORTH ASHEBORO  
**Station #:** B4850000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.76462 **Longitude:** -79.80683 **Stream class:** C  
**Agency:** UCFRBA **NC stream index:** 17-12

**Time period:** 01/23/2004 to 09/18/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	27	0	<4	4	14.8	87.3	1	2.7	5.5	7.6	11.4	12.4	13.1
	27	0	<5	5	18.5	95.3	1	2.7	5.5	7.6	11.4	12.4	13.1
pH (SU)	27	0	<6	0	0		6.4	6.6	6.8	6.9	7.2	7.3	7.5
	27	0	>9	0	0		6.4	6.6	6.8	6.9	7.2	7.3	7.5
Spec. conductance (umhos/cm at 25°C)	27	0	N/A				77	93	126	131	142	153	203
Water Temperature (°C)	27	0	>32	0	0		4	4.7	8.5	15.1	21.6	23.7	25.3
<b>Other</b>													
TSS (mg/L)	27	3	N/A				1	1	2	5	10	31	55
Turbidity (NTU)	27	0	>50	2	7.4		2.4	3.9	7.3	11.8	16.4	44.9	70
<b>Nutrients (mg/L)</b>													
NH3 as N	27	11	N/A				0.02	0.02	0.02	0.04	0.08	0.16	0.4
NO2 + NO3 as N	27	3	N/A				0.02	0.03	0.05	0.22	0.3	0.4	0.42
TKN as N	27	4	N/A				0.2	0.2	0.3	0.4	0.6	1.02	1.9
Total Phosphorus	27	3	N/A				0.01	0.02	0.02	0.05	0.08	0.11	0.46
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	16	1	N/A				50	92	180	338	1450	3108	3920
Arsenic, total (As)	16	16	>10	0	0		5	5	10	10	10	10	10
Cadmium, total (Cd)	15	15	>2	0	0		0.5	0.8	2	2	2	2	2
Chromium, total (Cr)	16	16	>50	0	0		5	5	5	5	5	10	10
Copper, total (Cu)	15	8	>7	0	0		2	2	2	2	5	5	6
Iron, total (Fe)	16	0	>1000	10	62.5	100	101	345	823	1300	1562	3515	4040
Lead, total (Pb)	15	15	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	16	16	>88	0	0		5	5	10	10	10	10	10
Zinc, total (Zn)	16	8	>50	0	0		10	10	10	10	14	26	46
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	27	Geomean	244	# > 400:	6	% > 400:	22	%Conf:	71.3				

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HASKETT CRK AT ASHEBORO WWTP BRIDGE NR ASHEBORO  
**Station #:** B4870000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.76490 **Longitude:** -79.78640 **Stream class:** C  
**Agency:** UCFRBA **NC stream index:** 17-12

**Time period:** 03/02/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	34	0	<4	0	0		5	6.2	7.5	8.8	10.8	12	12.4
	34	0	<5	0	0		5	6.2	7.5	8.8	10.8	12	12.4
pH (SU)	34	0	<6	0	0		6.2	6.6	6.9	7	7.2	8.1	9.1
	34	0	>9	1	2.9		6.2	6.6	6.9	7	7.2	8.1	9.1
Spec. conductance (umhos/cm at 25°C)	34	1	N/A				59	78	101	121	146	180	221
Water Temperature (°C)	34	0	>32	0	0		2.7	7	10.1	15.8	23.9	27.2	30.7
<b>Other</b>													
TSS (mg/L)	34	1	N/A				1	2.5	4.8	10	23.2	61.3	104
Turbidity (NTU)	34	0	>50	5	14.7	88.1	4.2	6.5	8.9	18.5	38.9	84.5	111
<b>Nutrients (mg/L)</b>													
NH3 as N	34	15	N/A				0.01	0.02	0.02	0.02	0.05	0.11	0.19
NO2 + NO3 as N	34	6	N/A				0.02	0.02	0.05	0.2	0.3	0.47	0.76
TKN as N	34	4	N/A				0.2	0.2	0.29	0.41	0.71	1.13	1.5
Total Phosphorus	34	3	N/A				0.01	0.02	0.04	0.07	0.12	0.37	0.52
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	10	0	N/A				241	249	333	395	770	2515	2650
Arsenic, total (As)	10	10	>10	0	0		5	5	5	8	10	10	10
Cadmium, total (Cd)	10	10	>2	0	0		0.5	0.5	0.5	1.5	2	2	2
Chromium, total (Cr)	10	10	>50	0	0		5	5	5	8	10	10	10
Copper, total (Cu)	10	1	>7	0	0		2	2	3	3	5	6	6
Iron, total (Fe)	10	0	>1000	7	70	100	615	643	954	1365	1732	4176	4380
Lead, total (Pb)	10	9	>25	0	0		2	2	5	10	10	10	10
Mercury, total (Hg)	7	7	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	10	10	>88	0	0		5	5	5	8	10	10	10
Zinc, total (Zn)	10	5	>50	0	0		10	10	10	12	20	27	28
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
33	188	9	27	89.3									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HASKETT CRK AT SR 2128 NR CENTRAL FALLS  
**Station #:** B4890000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.76792 **Longitude:** -79.77898 **Stream class:** C  
**Agency:** NCAMBNT **NC stream index:** 17-12  
**Time period:** 01/13/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	57	0	<4	0	0		5.6	7	7.4	8.8	10.1	11.4	13
	57	0	<5	0	0		5.6	7	7.4	8.8	10.1	11.4	13
pH (SU)	58	0	<6	0	0		6.8	7.2	7.3	7.4	7.7	7.9	8.1
	58	0	>9	0	0		6.8	7.2	7.3	7.4	7.7	7.9	8.1
Spec. conductance (umhos/cm at 25°C)	58	0	N/A				68	336	604	761	924	1018	1205
Water Temperature (°C)	59	0	>32	0	0		7.4	11	13.1	19.1	26.1	27.5	28.9
<b>Other</b>													
TSS (mg/L)	19	1	N/A				2.5	4.5	5	6.8	11	18	341
Turbidity (NTU)	59	0	>50	1	1.7		1.5	2.3	3.4	4.8	8.1	15	210
<b>Nutrients (mg/L)</b>													
NH3 as N	59	21	N/A				0.02	0.02	0.02	0.03	0.04	0.56	4.2
NO2 + NO3 as N	59	0	N/A				0.97	5	8.6	12	16	19	20
TKN as N	59	0	N/A				0.7	0.82	0.93	1.1	1.2	2.1	5.1
Total Phosphorus	59	0	N/A				0.31	0.43	0.55	0.85	1.1	1.6	2
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				130	130	175	230	335	900	1200
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	0	>7	11	84.6	100	3	5	7	9	10	13	13
Iron, total (Fe)	13	0	>1000	1	7.7		130	134	160	360	490	888	1100
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	0	>50	1	7.7		24	25	28	31	34	50	59
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
59	97	6	10										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 2261 OLD LIBERTY RD NR CENTRAL FALLS  
**Station #:** B4920000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.76350 **Longitude:** -79.77213 **Stream class:** C  
**Agency:** UCFRBA **NC stream index:** 17-(10.5)

**Time period:** 01/23/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.3	6	7.1	8.5	9.9	11.2	12.9
	85	0	<5	3	3.5		4.3	6	7.1	8.5	9.9	11.2	12.9
pH (SU)	85	0	<6	0	0		6.4	6.8	7.1	7.3	7.5	7.6	10.4
	85	0	>9	1	1.2		6.4	6.8	7.1	7.3	7.5	7.6	10.4
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				106	144	166	221	308	440	640
Water Temperature (°C)	85	0	>32	0	0		4	8.6	12.6	20.6	25.3	27	29.7
<b>Other</b>													
Chlorophyll a (ug/L)	5	2	>40	0	0		1	1	1	3	16	18	18
TSS (mg/L)	61	2	N/A				1	2.9	5	8	12	25.2	85
Turbidity (NTU)	61	0	>50	2	3.3		4	5.2	6.9	11.7	15	35.6	95.8
<b>Nutrients (mg/L)</b>													
NH3 as N	61	3	N/A				0.02	0.03	0.05	0.08	0.14	0.24	0.47
NO2 + NO3 as N	61	0	N/A				0.02	0.43	0.81	1.37	2.13	6.15	8.89
TKN as N	61	1	N/A				0.2	0.3	0.49	0.72	0.9	1.1	1.6
Total Phosphorus	61	0	N/A				0.04	0.06	0.12	0.16	0.33	0.61	1.17
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	1	N/A				50	197	296	461	1024	1618	3010
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	4	>7	2	8		2	2	3	4	6	7	8
Iron, total (Fe)	25	0	>1000	12	48	100	135	446	647	989	1400	2764	3420
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	25	16	>0.012	0	0		0.003	0.003	0.006	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	12	>50	0	0		10	10	10	10	16	25	34
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
59	183	14	24	81.2									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 2615 AT RAMSEUR  
**Station #:** B5070000  
**Latitude:** 35.73022      **Longitude:** -79.65579  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030003  
**Stream class:** C  
**NC stream index:** 17-(10.5)

**Time period:** 01/13/2004 to 03/21/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	15	0	<4	0	0		6.3	6.8	7.7	10.2	12.4	14.1	14.1
	15	0	<5	0	0		6.3	6.8	7.7	10.2	12.4	14.1	14.1
pH (SU)	15	0	<6	0	0		6.7	6.8	7.2	7.5	7.6	7.8	8
	15	0	>9	0	0		6.7	6.8	7.2	7.5	7.6	7.8	8
Spec. conductance (umhos/cm at 25°C)	15	0	N/A				94	95	125	154	186	270	320
Water Temperature (°C)	15	0	>32	0	0		3.1	4.2	7	10.7	22.2	27	27.4
<b>Other</b>													
TSS (mg/L)	5	0	N/A				6	6	7	11	12	12	12
Turbidity (NTU)	15	0	>50	2	13.3	81.6	7.2	10.1	14	20	25	62	65
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	5	0	N/A				530	530	645	820	1215	1600	1600
Arsenic, total (As)	5	5	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	5	5	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	5	5	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	5	0	>7	1	20		3	3	4	4	11	18	18
Iron, total (Fe)	5	0	>1000	5	100		1100	1100	1100	1200	1500	1700	1700
Lead, total (Pb)	5	5	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	5	5	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	5	5	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	5	1	>50	0	0		10	10	11	18	24	24	24

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
15	126	2	13

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 2615 AT RAMSEUR  
**Station #:** B5070000  
**Latitude:** 35.73022      **Longitude:** -79.65579  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030003  
**Stream class:** C  
**NC stream index:** 17-(10.5)

**Time period:** 01/23/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.8	6	6.9	8	10.4	11.8	13.3
	85	0	<5	2	2.4		4.8	6	6.9	8	10.4	11.8	13.3
pH (SU)	85	0	<6	0	0		6.2	7	7.2	7.3	7.5	7.7	8.1
	85	0	>9	0	0		6.2	7	7.2	7.3	7.5	7.7	8.1
Spec. conductance (umhos/cm at 25°C)	84	1	N/A				93	133	158	201	256	324	461
Water Temperature (°C)	85	0	>32	0	0		3.4	8.1	12.9	20.8	25.9	27.7	29.8
<b>Other</b>													
TSS (mg/L)	60	6	N/A				1	1.1	3	7	11	27.8	110
Turbidity (NTU)	60	0	>50	4	6.7		2	4	6.3	9.9	18.3	43.3	160
<b>Nutrients (mg/L)</b>													
NH3 as N	45	10	N/A				0.02	0.02	0.02	0.04	0.07	0.11	0.26
NO2 + NO3 as N	45	0	N/A				0.02	0.53	0.69	0.98	1.36	1.88	2.61
TKN as N	45	1	N/A				0.2	0.29	0.4	0.52	0.7	0.88	8.01
Total Phosphorus	45	0	N/A				0.06	0.07	0.09	0.11	0.15	0.22	0.48
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	10	0	N/A				156	164	267	344	1258	2129	2150
Arsenic, total (As)	10	10	>10	0	0		5	6	10	10	10	10	10
Cadmium, total (Cd)	10	10	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	10	10	>50	0	0		5	5	5	5	5	10	10
Copper, total (Cu)	10	5	>7	1	10	73.6	2	2	2	3	4	8	8
Iron, total (Fe)	10	0	>1000	4	40	99.8	408	418	614	932	1788	3028	3080
Lead, total (Pb)	10	10	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	1	1	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	10	10	>88	0	0		5	6	10	10	10	10	10
Zinc, total (Zn)	10	7	>50	0	0		10	10	10	10	11	22	23

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400:	%Conf:
59	93	11	19	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 2628 HINSHAW TOWN RD NR PARKS CROSSROADS  
**Station #:** B5100000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.67248 **Longitude:** -79.62735 **Stream class:** C  
**Agency:** UCFRBA **NC stream index:** 17-(10.5)

**Time period:** 01/23/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.5	5.7	6.7	7.8	9.3	11.7	12.5
	85	0	<5	2	2.4		4.5	5.7	6.7	7.8	9.3	11.7	12.5
pH (SU)	85	0	<6	0	0		6.2	6.8	7.1	7.3	7.4	7.7	8.3
	85	0	>9	0	0		6.2	6.8	7.1	7.3	7.4	7.7	8.3
Spec. conductance (umhos/cm at 25°C)	84	1	N/A				89	124	150	195	247	290	451
Water Temperature (°C)	85	0	>32	0	0		3.6	7.6	12.3	21	25.4	27	29.7
<b>Other</b>													
TSS (mg/L)	60	11	N/A				1	1	2	4	8	32	176
Turbidity (NTU)	60	0	>50	4	6.7		1.4	2.3	4.5	8.4	19.3	45.5	302
<b>Nutrients (mg/L)</b>													
NH3 as N	60	21	N/A				0.02	0.02	0.02	0.04	0.07	0.12	0.24
NO2 + NO3 as N	60	1	N/A				0.02	0.51	0.71	1	1.32	1.73	2.39
TKN as N	60	3	N/A				0.2	0.21	0.41	0.59	0.7	1	1.4
Total Phosphorus	60	0	N/A				0.03	0.07	0.08	0.12	0.16	0.25	0.66
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	1	N/A				50	138	228	356	1120	1810	5020
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	24	4	>7	1	4.2		2	2	2	4	5	6	11
Iron, total (Fe)	25	0	>1000	11	44	100	117	455	700	972	1845	2484	6010
Lead, total (Pb)	25	25	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	19	>50	1	4		10	10	10	10	10	18	63
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
59	148	12	20	60.2									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT NC 42 NR COLERIDGE  
**Station #:** B5131000  
**Latitude:** 35.64056      **Longitude:** -79.61940  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030003  
**Stream class:** C  
**NC stream index:** 17-(10.5)

**Time period:** 01/13/2004 to 11/06/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	32	0	<4	0	0		5.2	6.1	6.8	8	10.4	12.3	14.1
	32	0	<5	0	0		5.2	6.1	6.8	8	10.4	12.3	14.1
pH (SU)	33	0	<6	0	0		6.7	7	7.2	7.5	7.7	8	8.5
	33	0	>9	0	0		6.7	7	7.2	7.5	7.7	8	8.5
Spec. conductance (umhos/cm at 25°C)	33	0	N/A				97	115	149	166	190	244	316
Water Temperature (°C)	33	0	>32	0	0		2.5	7.2	10.2	18.1	25.6	28.5	30.6
<b>Other</b>													
Chlorophyll a (ug/L)	28	8	>40	0	0		1	1	1	2	4	9	35
Turbidity (NTU)	1	0	>50	0	0		6.8	6.8	6.8	6.8	6.8	6.8	6.8

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 1456 NR HIGH FALLS  
**Station #:** B5190000  
**Latitude:** 35.50049      **Longitude:** -79.58135  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030003  
**Stream class:** C  
**NC stream index:** 17-(10.5)

**Time period:** 02/09/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	49	0	<4	0	0		6	6.5	7.4	9.9	11	12.4	13.8
	49	0	<5	0	0		6	6.5	7.4	9.9	11	12.4	13.8
pH (SU)	52	0	<6	1	1.9		5.8	6.2	6.4	6.8	7.1	7.4	8.4
	52	0	>9	0	0		5.8	6.2	6.4	6.8	7.1	7.4	8.4
Spec. conductance (umhos/cm at 25°C)	52	0	N/A				88	112	124	146	186	233	319
Water Temperature (°C)	53	0	>32	0	0		3.6	6.3	9.2	15	24.3	27.6	29.4
<b>Other</b>													
TSS (mg/L)	17	8	N/A				2.5	2.5	4.2	6.2	6.2	9	9
Turbidity (NTU)	53	0	>50	2	3.8		1.8	2.2	3.1	7.2	14	27.8	200
<b>Nutrients (mg/L)</b>													
NH3 as N	53	32	N/A				0.02	0.02	0.02	0.02	0.03	0.07	0.26
NO2 + NO3 as N	53	0	N/A				0.3	0.47	0.59	0.74	0.92	1.2	1.8
TKN as N	53	0	N/A				0.31	0.39	0.49	0.54	0.64	0.74	0.99
Total Phosphorus	53	0	N/A				0.03	0.06	0.08	0.1	0.13	0.2	0.42
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	11	0	N/A				120	130	180	340	780	1862	2100
Arsenic, total (As)	11	11	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	11	11	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	11	11	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	11	1	>7	0	0		2	2	3	3	4	5	5
Iron, total (Fe)	11	0	>1000	2	18.2	91	320	358	610	880	1000	1900	2100
Lead, total (Pb)	11	11	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	11	11	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	11	9	>50	0	0		10	10	10	10	10	11	11

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400:	%Conf:
52	53	2	4	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** COTTON CRK AT SR 1372 AUMAN RD NR STAR  
**Station #:** B5390800 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.37820 **Longitude:** -79.75510 **Stream class:** WS-III  
**Agency:** UCFRBA **NC stream index:** 17-26-5-3

**Time period:** 01/23/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	2	2.4		3.8	5	6.2	7.4	9	11.8	13.4
	85	0	<5	8	9.4		3.8	5	6.2	7.4	9	11.8	13.4
pH (SU)	85	0	<6	1	1.2		5.9	6.6	6.8	7.1	7.3	7.4	8.1
	85	0	>9	0	0		5.9	6.6	6.8	7.1	7.3	7.4	8.1
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				78	187	252	334	547	649	1039
Water Temperature (°C)	85	0	>32	0	0		2.1	7	12.1	17.5	21.8	23.4	25
<b>Other</b>													
TSS (mg/L)	60	8	N/A				1	1	2	4	6	15.8	78
Turbidity (NTU)	60	0	>50	2	3.3		1.3	3	4.7	6.7	10.8	26.3	91
<b>Nutrients (mg/L)</b>													
NH3 as N	60	25	N/A				0.02	0.02	0.02	0.03	0.07	0.25	1.36
NO2 + NO3 as N	60	2	>10	5	8.3		0.02	0.48	1.45	2.79	4.86	9.59	14.8
TKN as N	60	0	N/A				0.14	0.4	0.5	0.7	1.07	1.49	1.98
Total Phosphorus	60	0	N/A				0.04	0.31	0.4	0.64	1.43	1.87	2.39
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				75	79	109	153	362	781	1980
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	4	>7	6	24	99.1	2	2	2	4	8	9	12
Iron, total (Fe)	25	0	>1000	8	32	100	300	454	652	720	1185	1950	2890
Lead, total (Pb)	25	24	>25	0	0		2	2	10	10	10	10	10
Manganese, total (Mn)	25	0	>200	0	0		7	17	21	48	106	137	150
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>25	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	12	>50	0	0		10	10	10	10	21	28	29
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	607	40	67	100									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BEAR CRK AT NC 705 AT ROBBINS  
**Station #:** B5480000  
**Latitude:** 35.44073      **Longitude:** -79.58857  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030003  
**Stream class:** C  
**NC stream index:** 17-26-(6)

**Time period:** 02/09/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	49	0	<4	5	10.2	63.5	0.1	3.9	5.4	8.5	10.3	11.6	12.6
	49	0	<5	7	14.3	88.8	0.1	3.9	5.4	8.5	10.3	11.6	12.6
pH (SU)	52	0	<6	7	13.5	85.6	5.5	5.8	6.2	6.4	6.7	6.9	7.3
	52	0	>9	0	0		5.5	5.8	6.2	6.4	6.7	6.9	7.3
Spec. conductance (umhos/cm at 25°C)	52	0	N/A				41	57	61	69	77	91	138
Water Temperature (°C)	53	0	>32	0	0		2.9	5.7	8.9	13.1	22.2	25.5	26.4
<b>Other</b>													
TSS (mg/L)	17	11	N/A				2.5	2.5	2.5	5	6.2	7.2	8.8
Turbidity (NTU)	53	0	>50	0	0		1.5	2.3	3.1	5.6	8.4	18.2	45
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	11	0	N/A				100	100	140	210	300	956	1100
Arsenic, total (As)	11	11	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	11	11	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	11	11	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	11	8	>7	0	0		2	2	2	2	2	5	5
Iron, total (Fe)	11	0	>1000	6	54.5	100	740	762	890	1100	1400	1580	1600
Lead, total (Pb)	11	11	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	11	11	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	11	6	>50	0	0		10	10	10	10	14	25	28

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
52	64	5	10

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT NC 22 AT HIGH FALLS  
**Station #:** B5520000  
**Latitude:** 35.47771      **Longitude:** -79.51951  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030003  
**Stream class:** C HQW  
**NC stream index:** 17-(25.7)

**Time period:** 01/23/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	0	0		4.9	8.1	8.6	9.4	10.9	12.4	14.2
	60	0	<5	1	1.7		4.9	8.1	8.6	9.4	10.9	12.4	14.2
pH (SU)	60	0	<6	0	0		6.1	7.1	7.3	7.5	8.1	8.5	8.8
	60	0	>9	0	0		6.1	7.1	7.3	7.5	8.1	8.5	8.8
Spec. conductance (umhos/cm at 25°C)	60	0	N/A				66	91	125	142	173	226	354
Water Temperature (°C)	60	0	>32	0	0		2	7.5	10.7	17.9	26.1	29.1	30.7
<b>Other</b>													
TSS (mg/L)	60	7	N/A				1	1	2	3	7	22.9	846
Turbidity (NTU)	60	0	>50	3	5		1	1.5	3.4	7	14.2	33.6	530
<b>Nutrients (mg/L)</b>													
NH3 as N	60	32	N/A				0.02	0.02	0.02	0.02	0.05	0.15	0.34
NO2 + NO3 as N	60	2	N/A				0.02	0.22	0.45	0.6	0.96	1.15	1.62
TKN as N	60	2	N/A				0.2	0.29	0.4	0.5	0.77	1.09	2.57
Total Phosphorus	60	1	N/A				0.01	0.03	0.06	0.08	0.16	0.24	0.9

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	64	9	15

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level: applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT NC 42 AT CARBONTON  
**Station #:** B5575000  
**Latitude:** 35.52004      **Longitude:** -79.34854  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030003  
**Stream class:** WS-IV HQW  
**NC stream index:** 17-(32.5)

**Time period:** 01/13/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	53	0	<4	4	7.5		2.2	4.2	5.7	7.4	10.2	11.5	14.3
	53	0	<5	10	18.9	98.6	2.2	4.2	5.7	7.4	10.2	11.5	14.3
pH (SU)	54	0	<6	0	0		6.2	6.4	6.6	6.8	7	7.4	8.9
	54	0	>9	0	0		6.2	6.4	6.6	6.8	7	7.4	8.9
Salinity (ppt)	21	0	N/A				0	0	0	0.1	0.1	0.1	0.2
Spec. conductance (umhos/cm at 25°C)	53	0	N/A				62	85	108	131	170	203	358
Water Temperature (°C)	54	0	>32	0	0		3	7	10.1	19	25.9	28.5	29.9
<b>Other</b>													
Chlorophyll a (ug/L)	49	11	>40	1	2		1	1	1	2	4	10	66
TSS (mg/L)	20	4	N/A				2.5	6	6.2	7.9	12	45.1	96
Turbidity (NTU)	54	0	>50	4	7.4		1.4	3.3	5.4	9.6	16.2	31	120
<b>Nutrients (mg/L)</b>													
NH3 as N	54	15	N/A				0.02	0.02	0.02	0.04	0.08	0.11	0.14
NO2 + NO3 as N	54	3	>10	0	0		0.02	0.09	0.38	0.57	0.66	0.9	1.6
TKN as N	54	0	N/A				0.29	0.38	0.47	0.54	0.64	0.76	1.5
Total Phosphorus	54	0	N/A				0.03	0.06	0.07	0.12	0.17	0.21	0.6
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				230	242	280	430	725	3580	5300
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	0	>7	1	7.7		2	2	2	3	3	7	9
Iron, total (Fe)	13	0	>1000	5	38.5	99.9	690	690	740	950	1200	3380	4700
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	3	23.1	96.6	28	30	42	66	225	372	440
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	11	>50	0	0		10	10	10	10	10	23	27
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
54	46	4	7										

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT NC 42 AT CARBONTON  
**Station #:** B5575000  
**Latitude:** 35.52004      **Longitude:** -79.34854  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030003  
**Stream class:** WS-IV HQW  
**NC stream index:** 17-(32.5)

**Time period:** 01/23/2004 to 04/22/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	18	0	<4	2	11.1	73.4	3.2	3.7	6.4	7.8	10.2	12.2	14.2
	18	0	<5	2	11.1	73.4	3.2	3.7	6.4	7.8	10.2	12.2	14.2
pH (SU)	18	0	<6	0	0		6.7	6.7	6.9	7	7.2	7.2	7.2
	18	0	>9	0	0		6.7	6.7	6.9	7	7.2	7.2	7.2
Spec. conductance (umhos/cm at 25°C)	18	0	N/A				85	89	118	152	168	187	189
Water Temperature (°C)	17	0	>32	0	0		3.9	4.8	9.1	16	24.1	28.2	29
<b>Other</b>													
Chlorophyll a (ug/L)	5	0	>40	0	0		1	1	2	6	26	30	30
TSS (mg/L)	17	0	N/A				2.8	3	4.6	7	16.9	39.8	71
Turbidity (NTU)	17	0	>50	2	11.8	76.2	6.4	7.7	9.1	13.7	20	58.5	62.9
<b>Nutrients (mg/L)</b>													
NH3 as N	17	2	N/A				0.02	0.02	0.05	0.08	0.14	0.2	0.22
NO2 + NO3 as N	17	0	>10	0	0		0.44	0.52	0.7	0.84	0.99	2.63	7.1
TKN as N	17	0	N/A				0.4	0.45	0.5	0.9	1	1.14	1.3
Total Phosphorus	17	0	N/A				0.01	0.02	0.05	0.17	0.2	0.24	0.26
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
16	156	6	38	97.3									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT DEEP RIVER PARK BRIDGE NR CUMNOCK  
**Station #:** B5685000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.57046 **Longitude:** -79.24116 **Stream class:** C  
**Agency:** UCFRBA **NC stream index:** 17-(38.7)

**Time period:** 01/23/2004 to 12/15/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	84	0	<4	1	1.2		3.9	4.8	5.6	7.1	9.7	11.8	13.3
	84	0	<5	10	11.9	78.4	3.9	4.8	5.6	7.1	9.7	11.8	13.3
pH (SU)	84	0	<6	0	0		6.3	6.7	6.9	7.1	7.2	7.4	7.6
	84	0	>9	0	0		6.3	6.7	6.9	7.1	7.2	7.4	7.6
Spec. conductance (umhos/cm at 25°C)	84	2	N/A				66	86	106	135	160	198	326
Water Temperature (°C)	84	0	>32	0	0		3.9	5.7	12	21.4	26.4	28.1	29.6
<b>Other</b>													
TSS (mg/L)	60	6	N/A				1	1	2.8	5	10	21.8	340
Turbidity (NTU)	60	0	>50	3	5		1.2	3.5	5.5	10.4	20.2	36.3	277

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	106	14	23	79.3

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT US 15 AND 501 NR SANFORD  
**Station #:** B5820000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.57817 **Longitude:** -79.19421 **Stream class:** C  
**Agency:** NCAMBNT **NC stream index:** 17-(38.7)  
**Time period:** 01/13/2004 to 03/15/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	15	0	<4	0	0		4.4	4.6	5.4	8	11	11.5	11.6
	15	0	<5	2	13.3	81.6	4.4	4.6	5.4	8	11	11.5	11.6
pH (SU)	15	0	<6	0	0		6.4	6.5	6.5	6.6	6.8	7	7.1
	15	0	>9	0	0		6.4	6.5	6.5	6.6	6.8	7	7.1
Salinity (ppt)	15	0	N/A				0	0	0.1	0.1	0.1	0.1	0.1
Spec. conductance (umhos/cm at 25°C)	15	0	N/A				99	104	113	127	140	217	218
Water Temperature (°C)	15	0	>32	0	0		4	5.2	9.2	12	24.5	26	27.1
<b>Other</b>													
TSS (mg/L)	5	0	N/A				4	4	4.5	7	9	10	10
Turbidity (NTU)	15	0	>50	0	0		7	7.2	10	12	18	32.8	40
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	5	0	N/A				340	340	395	630	940	980	980
Arsenic, total (As)	5	5	>10	0	0		5	5	5	5	10	10	10
Cadmium, total (Cd)	5	5	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	5	4	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	5	1	>7	0	0		2	2	2	3	4	4	4
Iron, total (Fe)	5	0	>1000	4	80		960	960	1030	1200	1300	1400	1400
Lead, total (Pb)	5	5	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	5	5	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	5	5	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	5	3	>50	0	0		10	10	10	10	10	11	11

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
15	45	1	7

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT US 15 AND 501 NR SANFORD  
**Station #:** B5820000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.57817 **Longitude:** -79.19421 **Stream class:** C  
**Agency:** UCFRBA **NC stream index:** 17-(38.7)

**Time period:** 01/23/2004 to 12/15/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	4	4.7		3.2	4.4	5.3	6.5	9.4	11.8	12.7
	85	0	<5	17	20	99.8	3.2	4.4	5.3	6.5	9.4	11.8	12.7
pH (SU)	85	0	<6	1	1.2		5.1	6.6	6.8	7	7.1	7.3	7.6
	85	0	>9	0	0		5.1	6.6	6.8	7	7.1	7.3	7.6
Spec. conductance (umhos/cm at 25°C)	85	3	N/A				47	94	116	160	202	259	359
Water Temperature (°C)	85	0	>32	0	0		4	6	12.1	21.3	26.3	28.2	29.5
<b>Other</b>													
TSS (mg/L)	60	4	N/A				1	2	3	5	11.5	23.5	354
Turbidity (NTU)	60	0	>50	4	6.7		1.5	4.2	6.3	11.4	21.4	34.8	420
<b>Nutrients (mg/L)</b>													
NH3 as N	60	18	N/A				0.02	0.02	0.02	0.04	0.08	0.13	0.36
NO2 + NO3 as N	60	0	N/A				0.09	0.56	0.67	1.01	1.41	2.03	3.81
TKN as N	60	1	N/A				0.2	0.4	0.42	0.58	0.8	1.08	2.48
Total Phosphorus	60	0	N/A				0.02	0.07	0.13	0.23	0.35	0.5	1.35
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				132	153	278	414	711	1048	1750
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	7	>7	2	8		2	2	2	3	4	7	9
Iron, total (Fe)	25	0	>1000	14	56	100	492	747	821	1060	1420	1724	3090
Lead, total (Pb)	25	24	>25	0	0		2	2	10	10	10	10	10
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>88	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	16	>50	0	0		10	10	10	10	18	24	48
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	60	Geomean	121	# > 400:	13	% > 400:	22	%Conf:	69.4				

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKY RIV AT US 64 NR SILER CITY  
**Station #:** B5950000  
**Latitude:** 35.73513      **Longitude:** -79.42325  
**Agency:** UCFRBA

**Hydrologic Unit Code:** 03030003  
**Stream class:** WS-III CA  
**NC stream index:** 17-43-(8)

**Time period:** 01/23/2004 to 12/15/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	11	12.9	86	2.1	3.3	4.8	6.3	9.3	11.1	13.1
	85	0	<5	24	28.2	100	2.1	3.3	4.8	6.3	9.3	11.1	13.1
pH (SU)	85	0	<6	0	0		6.3	6.5	6.7	7	7.2	7.5	8.1
	85	0	>9	0	0		6.3	6.5	6.7	7	7.2	7.5	8.1
Spec. conductance (umhos/cm at 25°C)	85	4	N/A				58	84	94	103	114	131	261
Water Temperature (°C)	85	0	>32	0	0		4.3	5.6	12.2	20	25.3	27.8	29.6
<b>Other</b>													
TSS (mg/L)	60	9	N/A				1	1	2	4	8.8	11.9	42
Turbidity (NTU)	60	0	>50	1	1.7		1	2	3.4	5.5	10.8	24.1	62.6
<b>Nutrients (mg/L)</b>													
NH3 as N	60	21	N/A				0.01	0.02	0.02	0.04	0.08	0.12	0.69
NO2 + NO3 as N	60	4	>10	0	0		0.02	0.09	0.15	0.28	0.47	0.67	4.02
TKN as N	60	0	N/A				0.2	0.4	0.51	0.62	0.9	1.33	1.9
Total Phosphorus	60	2	N/A				0.01	0.04	0.05	0.08	0.13	0.18	0.34
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	16	1	N/A				50	80	118	192	339	605	926
Arsenic, total (As)	16	16	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	16	16	>2	0	0		0.5	0.5	0.6	2	2	2	2
Chromium, total (Cr)	16	16	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	16	6	>7	0	0		2	2	2	3	4	6	6
Iron, total (Fe)	16	0	>1000	9	56.2	100	574	697	848	1105	1288	1569	1730
Lead, total (Pb)	16	16	>25	0	0		2	2	2	10	10	10	10
Manganese, total (Mn)	2	0	>200	1	50		169	169	169	322	474	474	474
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	16	16	>25	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	16	12	>50	0	0		10	10	10	10	11	19	21

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	99	11	18

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKY RIV AT SR 2170 RIVES CHAPEL RD NR SILER CITY  
**Station #:** B5980000 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.69848 **Longitude:** -79.37559 **Stream class:** WS-III CA  
**Agency:** UCFRBA **NC stream index:** 17-43-(8)

**Time period:** 01/23/2004 to 12/15/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.1	5.1	6.2	7.5	9.5	11.8	15.2
	85	0	<5	5	5.9		4.1	5.1	6.2	7.5	9.5	11.8	15.2
pH (SU)	85	0	<6	0	0		6.4	6.8	7	7.1	7.3	7.5	7.9
	85	0	>9	0	0		6.4	6.8	7	7.1	7.3	7.5	7.9
Spec. conductance (umhos/cm at 25°C)	85	0	N/A				63	125	184	346	624	901	1100
Water Temperature (°C)	85	0	>32	0	0		3.4	5.1	11.7	20.4	24.8	26.8	29
<b>Other</b>													
TSS (mg/L)	60	10	N/A				1	1	2	3.6	5.6	12.9	62
Turbidity (NTU)	60	1	>50	1	1.7		1	1.6	2.3	4.8	11.4	22.2	54
<b>Nutrients (mg/L)</b>													
NH3 as N	60	23	N/A				0.02	0.02	0.02	0.03	0.06	0.12	0.23
NO2 + NO3 as N	60	1	>10	19	31.7	100	0.02	0.95	2.19	4.54	11.78	25.62	36.4
TKN as N	60	12	N/A				0.2	0.2	0.39	0.62	0.9	1.19	1.91
Total Phosphorus	60	1	N/A				0.01	0.04	0.09	0.15	0.38	0.86	3.38
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	2	N/A				50	54	118	177	336	531	774
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	25	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	4	>7	0	0		2	2	3	4	5	5	6
Iron, total (Fe)	25	0	>1000	5	20	96.7	56	116	324	661	931	1340	2000
Lead, total (Pb)	25	24	>25	0	0		2	2	10	10	10	10	21
Manganese, total (Mn)	2	0	>200	0	0		33	33	33	34	35	35	35
Mercury, total (Hg)	16	16	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>25	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	16	>50	0	0		10	10	10	10	13	24	30

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	144	10	17

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKY RIV AT NC 902 NR PITTSBORO  
**Station #:** B6000000  
**Latitude:** 35.67865      **Longitude:** -79.28983  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030003  
**Stream class:** WS-III CA  
**NC stream index:** 17-43-(8)

**Time period:** 01/13/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	54	0	<4	0	0		6.4	7.1	7.8	9.6	11.6	13	14.4
	54	0	<5	0	0		6.4	7.1	7.8	9.6	11.6	13	14.4
pH (SU)	54	0	<6	0	0		6.2	6.6	6.8	7	7.5	7.9	8.8
	54	0	>9	0	0		6.2	6.6	6.8	7	7.5	7.9	8.8
Salinity (ppt)	21	0	N/A				0	0.1	0.1	0.1	0.1	0.18	0.2
Spec. conductance (umhos/cm at 25°C)	54	0	N/A				69	120	147	232	412	703	1009
Water Temperature (°C)	55	0	>32	0	0		3	5.9	10	18.2	23.2	26.5	29.3
<b>Other</b>													
TSS (mg/L)	20	8	N/A				2.5	2.5	3	5.7	6.8	7.7	7.8
Turbidity (NTU)	55	3	>50	1	1.8		1	1.1	1.6	2.9	8.9	17	65
<b>Nutrients (mg/L)</b>													
NH3 as N	55	42	N/A				0.02	0.02	0.02	0.02	0.02	0.03	0.12
NO2 + NO3 as N	55	0	>10	6	10.9	69	0.36	1.16	1.6	3	6.4	12.4	21
TKN as N	55	0	N/A				0.39	0.53	0.62	0.73	0.85	0.96	1.2
Total Phosphorus	55	0	N/A				0.02	0.03	0.06	0.12	0.21	0.35	0.98
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				56	59	72	110	485	1480	1900
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	2	>7	0	0		2	2	2	3	3	5	6
Iron, total (Fe)	13	1	>1000	1	7.7		50	63	155	590	760	1360	1600
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	3	0	>200	0	0		18	18	18	19	24	24	24
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	9	>50	0	0		10	10	10	10	14	20	22

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
55	55	7	13

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 1011 OLD US 1 NR MONCURE  
**Station #:** B6040300 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.61759 **Longitude:** -79.09119 **Stream class:** WS-IV  
**Agency:** NCAMBNT **NC stream index:** 17-(43.5)

**Time period:** 01/28/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	50	0	<4	1	2		2.5	5.9	6.5	8.7	10.6	12.2	13.9
	50	0	<5	2	4		2.5	5.9	6.5	8.7	10.6	12.2	13.9
pH (SU)	54	0	<6	0	0		6	6.5	6.6	6.8	7.3	7.5	8.5
	54	0	>9	0	0		6	6.5	6.6	6.8	7.3	7.5	8.5
Salinity (ppt)	21	0	N/A				0	0.02	0.1	0.1	0.1	0.1	0.1
Spec. conductance (umhos/cm at 25°C)	53	0	N/A				75	91	113	133	168	222	341
Water Temperature (°C)	54	0	>32	0	0		1	7	10.1	19	25.8	27.6	29.9
<b>Other</b>													
TSS (mg/L)	20	3	N/A				2.5	2.6	5.3	6.8	11.2	36.8	163
Turbidity (NTU)	54	0	>50	3	5.6		1.9	3.8	5.2	9.7	20	35	150
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				170	174	255	420	680	5280	8000
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	0	>7	1	7.7		2	2	2	2	3	7	10
Iron, total (Fe)	13	0	>1000	5	38.5	99.9	380	476	765	880	1450	4840	6800
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	1	7.7		23	24	39	53	96	274	390
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	8	>50	0	0		10	10	10	10	17	29	31

**Fecal Coliform Screening(#/100mL)**

# results: 54      Geomean: 41      # > 400: 3      % > 400: %Conf: 6

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf: States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** DEEP RIV AT SR 1011 OLD US 1 NR MONCURE  
**Station #:** B6040300 **Hydrologic Unit Code:** 03030003  
**Latitude:** 35.61759 **Longitude:** -79.09119 **Stream class:** WS-IV  
**Agency:** UCFRBA **NC stream index:** 17-(43.5)

**Time period:** 01/30/2004 to 12/15/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	0	0		5.5	6.6	7.6	9.1	11.3	13	13.5
	60	0	<5	0	0		5.5	6.6	7.6	9.1	11.3	13	13.5
pH (SU)	60	0	<6	0	0		6.2	6.8	7	7.2	7.4	7.6	7.9
	60	0	>9	0	0		6.2	6.8	7	7.2	7.4	7.6	7.9
Spec. conductance (umhos/cm at 25°C)	60	1	N/A				64	91	106	143	174	251	339
Water Temperature (°C)	60	0	>32	0	0		3	5.8	9.8	18.1	25.3	28.2	31
<b>Other</b>													
TSS (mg/L)	60	7	N/A				1	1	2	5	9	32	200
Turbidity (NTU)	60	0	>50	3	5		1.5	3.3	4.9	9.9	23.8	43.5	211
<b>Nutrients (mg/L)</b>													
NH3 as N	59	24	N/A				0.02	0.02	0.02	0.02	0.05	0.14	0.39
NO2 + NO3 as N	60	1	>10	0	0		0.02	0.54	0.67	0.89	1.02	1.21	2.74
TKN as N	59	1	N/A				0.2	0.4	0.42	0.53	0.82	1.3	14
Total Phosphorus	60	0	N/A				0.02	0.09	0.12	0.19	0.28	0.37	0.58
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	25	0	N/A				70	133	198	456	768	1148	3470
Arsenic, total (As)	25	25	>10	0	0		5	5	5	10	10	10	10
Cadmium, total (Cd)	25	25	>2	0	0		0.5	0.5	1	2	2	2	2
Chromium, total (Cr)	25	24	>50	0	0		5	5	5	5	10	10	10
Copper, total (Cu)	25	7	>7	2	8		2	2	2	3	5	8	16
Iron, total (Fe)	25	0	>1000	10	40	100	351	568	810	918	1345	2194	3030
Lead, total (Pb)	25	24	>25	0	0		2	2	10	10	10	10	10
Manganese, total (Mn)	25	0	>200	1	4		19	22	31	46	88	118	352
Mercury, total (Hg)	25	16	>0.012	0	0		0.002	0.002	0.004	0.2	0.2	0.2	0.2
Nickel, total (Ni)	25	25	>25	0	0		5	5	5	10	10	10	10
Zinc, total (Zn)	25	17	>50	1	4		10	10	10	10	18	25	105

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	70	10	17	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LICK CRK AT SR 1500 NR CORINTH  
**Station #:** B6130500  
**Latitude:** 35.55947      **Longitude:** -79.05437  
**Agency:** MCFRBA

**Hydrologic Unit Code:** 03030004  
**Stream class:** WS-IV  
**NC stream index:** 18-4-(2)

**Time period:** 01/20/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	15	25	100	1	2.5	3.7	7.1	9.7	11.4	14.7
	60	0	<5	21	35	100	1	2.5	3.7	7.1	9.7	11.4	14.7
pH (SU)	60	0	<6	5	8.3		5.7	6.1	6.4	6.6	6.8	7.1	7.7
	60	0	>9	0	0		5.7	6.1	6.4	6.6	6.8	7.1	7.7
Spec. conductance (umhos/cm at 25°C)	60	3	N/A				55	70	75	80	88	100	181
Water Temperature (°C)	60	0	>32	0	0		1.6	5.7	9.2	14.3	22	24.6	26.7
<b>Other</b>													
TSS (mg/L)	60	2	N/A				1	2	4	6	13	28.1	160
Turbidity (NTU)	60	0	>50	5	8.3		6.2	8	9.9	16.8	29.8	40	80
<b>Nutrients (mg/L)</b>													
NH3 as N	60	23	N/A				0.02	0.02	0.02	0.03	0.07	0.1	0.22
NO2 + NO3 as N	60	8	>10	0	0		0.02	0.02	0.05	0.14	0.22	0.28	0.44
TKN as N	60	6	N/A				0.2	0.2	0.32	0.46	0.7	1.18	2.4
Total Phosphorus	60	2	N/A				0.02	0.03	0.04	0.07	0.1	0.2	0.52

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	119	8	13

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NC 42 NR CORINTH  
**Station #:** B6160000  
**Latitude:** 35.54905      **Longitude:** -79.02460  
**Agency:** MCFRBA

**Hydrologic Unit Code:** 03030004  
**Stream class:** WS-IV CA  
**NC stream index:** 18-(4.5)

**Time period:** 01/20/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		5.5	6.1	7.1	8.7	10.4	12.1	13.3
	85	0	<5	0	0		5.5	6.1	7.1	8.7	10.4	12.1	13.3
pH (SU)	85	0	<6	0	0		6.1	6.6	6.9	7.2	7.6	8.5	9.3
	85	0	>9	3	3.5		6.1	6.6	6.9	7.2	7.6	8.5	9.3
Spec. conductance (umhos/cm at 25°C)	85	1	N/A				71	119	147	163	189	227	288
Water Temperature (°C)	85	0	>32	1	1.2		5.5	8.9	13.9	23.2	27.8	29.2	32.4
<b>Other</b>													
Chlorophyll a (ug/L)	56	3	>40	3	5.4		1	2	3	8	19	34	60
TSS (mg/L)	61	0	N/A				2	6	8	11	15	26.8	52
Turbidity (NTU)	61	0	>50	3	4.9		2	6.1	8.5	11.3	17	33.9	66.4
<b>Nutrients (mg/L)</b>													
NH3 as N	61	24	N/A				0.01	0.02	0.02	0.03	0.08	0.12	0.25
NO2 + NO3 as N	61	4	>10	0	0		0.02	0.1	0.34	0.51	0.66	0.87	1.79
TKN as N	61	0	N/A				0.24	0.41	0.5	0.8	1	1.23	1.5
Total Phosphorus	61	0	N/A				0.01	0.06	0.08	0.11	0.14	0.32	0.57
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	41	8	13										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NC 42 NR CORINTH  
**Station #:** B6160000  
**Latitude:** 35.54905      **Longitude:** -79.02460  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030004  
**Stream class:** WS-IV CA  
**NC stream index:** 18-(4.5)

**Time period:** 01/28/2004 to 12/18/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	34	0	<4	0	0		4.3	6.2	7.2	9.1	11	12.6	14.6
	34	0	<5	1	2.9		4.3	6.2	7.2	9.1	11	12.6	14.6
pH (SU)	36	0	<6	1	2.8		5.9	6.4	6.6	6.9	7.3	7.8	8.4
	36	0	>9	0	0		5.9	6.4	6.6	6.9	7.3	7.8	8.4
Salinity (ppt)	20	0	N/A				0.1	0.1	0.1	0.1	0.1	0.1	0.1
Spec. conductance (umhos/cm at 25°C)	36	0	N/A				101	120	129	156	183	199	266
Water Temperature (°C)	36	0	>32	0	0		3	7.1	10.2	18.5	26.1	28.8	31.6
<b>Other</b>													
TSS (mg/L)	12	0	N/A				6.8	6.9	7.8	11.5	15.8	61.5	78
Turbidity (NTU)	36	0	>50	1	2.8		4.8	6.5	8.2	12.5	22.2	29	100
<b>Nutrients (mg/L)</b>													
NH3 as N	36	16	N/A				0.02	0.02	0.02	0.04	0.07	0.1	0.13
NO2 + NO3 as N	36	0	>10	0	0		0.07	0.23	0.37	0.56	0.76	0.92	1
TKN as N	36	0	N/A				0.44	0.55	0.6	0.68	0.81	0.93	1
Total Phosphorus	36	0	N/A				0.08	0.1	0.11	0.12	0.15	0.26	0.37
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				180	189	280	425	712	4730	6200
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	12	12	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	12	0	>7	1	8.3		2	2	3	3	3	7	8
Iron, total (Fe)	12	0	>1000	4	33.3	99.6	220	301	552	740	1175	3770	4700
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	12	0	>200	1	8.3		79	79	88	110	168	281	320
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	9	>50	0	0		10	10	10	10	12	21	24

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
36	32	3	8	

**Key:**

# result: number of observations  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BUCKHORN CRK AT NC 42 NR FUQUAY VARINA  
**Station #:** B6200000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.55941 **Longitude:** -78.97342 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-7-(11)

**Time period:** 01/20/2004 to 08/23/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	20	0	<4	3	15	86.7	2.5	3.1	5.1	9.2	11.7	13.2	14.4
	20	0	<5	5	25	98.9	2.5	3.1	5.1	9.2	11.7	13.2	14.4
pH (SU)	20	0	<6	1	5		5.7	6.5	6.7	6.8	7	7.1	7.4
	20	0	>9	0	0		5.7	6.5	6.7	6.8	7	7.1	7.4
Spec. conductance (umhos/cm at 25°C)	20	3	N/A				76	79	86	90	97	103	103
Water Temperature (°C)	20	0	>32	0	0		4.4	6.1	9.2	17.1	25.3	28.1	29.4
<b>Other</b>													
TSS (mg/L)	20	6	N/A				1	1	1	3.2	4.4	5.7	9
Turbidity (NTU)	20	0	>50	0	0		1.2	2	2	3	3.9	5	6.3
<b>Nutrients (mg/L)</b>													
NH3 as N	20	5	N/A				0.02	0.02	0.02	0.04	0.12	0.18	0.2
NO2 + NO3 as N	20	8	N/A				0.02	0.02	0.03	0.1	0.13	0.17	0.36
TKN as N	20	1	N/A				0.2	0.22	0.5	0.55	0.8	1.1	1.6
Total Phosphorus	20	2	N/A				0.01	0.02	0.03	0.04	0.11	0.31	0.34

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
20	19	0	0	

**Key:**

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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BUCKHORN CRK BESIDE SR 1921 NR CORINTH  
**Station #:** B6204000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.54353 **Longitude:** -78.98986 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-7-(11)

**Time period:** 09/15/2005 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	40	0	<4	2	5		1.1	4.2	5.4	7	10.4	11.6	12.8
	40	0	<5	6	15	90	1.1	4.2	5.4	7	10.4	11.6	12.8
pH (SU)	39	0	<6	1	2.6		5.7	6.6	6.7	6.9	7	7.1	7.6
	39	0	>9	0	0		5.7	6.6	6.7	6.9	7	7.1	7.6
Spec. conductance (umhos/cm at 25°C)	40	0	N/A				71	79	86	110	124	132	156
Water Temperature (°C)	40	0	>32	0	0		4.2	7.3	10.2	15.2	22.8	25.5	28.6
<b>Other</b>													
TSS (mg/L)	40	11	N/A				1	1	1	2	4	5	12
Turbidity (NTU)	40	0	>50	0	0		1.7	2.4	3.2	4.4	5.5	8.3	11.8
<b>Nutrients (mg/L)</b>													
NH3 as N	40	23	N/A				0.02	0.02	0.02	0.02	0.04	0.07	0.5
NO2 + NO3 as N	40	9	N/A				0.02	0.02	0.02	0.04	0.12	0.18	0.57
TKN as N	40	8	N/A				0.2	0.2	0.24	0.33	0.5	0.56	0.88
Total Phosphorus	40	3	N/A				0.02	0.02	0.03	0.04	0.05	0.06	0.28

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
40	32	1	2	

**Key:**

# result: number of observations  
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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** AVENTS CRK AT SR 1418 NR COKESBURY  
**Station #:** B6230000  
**Latitude:** 35.48772      **Longitude:** -78.90987  
**Agency:** MCFRBA

**Hydrologic Unit Code:** 03030004  
**Stream class:** WS-IV HQW  
**NC stream index:** 18-13-(2)

**Time period:** 01/20/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	0	0		4.3	6.8	8	10.1	12	12.9	15.7
	60	0	<5	2	3.3		4.3	6.8	8	10.1	12	12.9	15.7
pH (SU)	60	0	<6	2	3.3		5.6	6.3	6.5	6.8	7	7.3	7.6
	60	0	>9	0	0		5.6	6.3	6.5	6.8	7	7.3	7.6
Spec. conductance (umhos/cm at 25°C)	60	4	N/A				47	55	57	60	65	71	103
Water Temperature (°C)	60	0	>32	0	0		2.2	5	8.6	13.6	21.3	23.9	27.3
<b>Other</b>													
TSS (mg/L)	60	6	N/A				1	1	2	3	5	10.9	33
Turbidity (NTU)	60	0	>50	1	1.7		2.8	3.8	4.8	5.6	7.5	11.9	58.8
<b>Nutrients (mg/L)</b>													
NH3 as N	60	44	N/A				0.01	0.02	0.02	0.02	0.02	0.07	0.12
NO2 + NO3 as N	60	4	>10	0	0		0.02	0.04	0.15	0.28	0.47	0.71	0.87
TKN as N	60	12	N/A				0.2	0.2	0.2	0.33	0.5	0.7	1.1
Total Phosphorus	60	18	N/A				0.01	0.02	0.02	0.03	0.04	0.08	0.46

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
59	127	6	10	

**Key:**

# result: number of observations  
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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NEILLS CRK AT US 401 NR LILLINGTON  
**Station #:** B6252000  
**Latitude:** 35.42810      **Longitude:** -78.82400  
**Agency:** MCFRBA

**Hydrologic Unit Code:** 03030004  
**Stream class:** WS-IV  
**NC stream index:** 18-16-(0.7)

**Time period:** 01/20/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	1	1.7		3.1	5.4	6.6	8.8	11	11.9	14.1
	60	0	<5	5	8.3		3.1	5.4	6.6	8.8	11	11.9	14.1
pH (SU)	60	0	<6	2	3.3		5.5	6.4	6.6	6.8	7.1	7.2	7.6
	60	0	>9	0	0		5.5	6.4	6.6	6.8	7.1	7.2	7.6
Spec. conductance (umhos/cm at 25°C)	60	2	N/A				56	76	85	96	111	136	165
Water Temperature (°C)	60	0	>32	0	0		2.3	6.1	9.5	14.2	22.7	25.4	29.8
<b>Other</b>													
TSS (mg/L)	60	2	N/A				1	2	3	6	8	14.8	71
Turbidity (NTU)	60	0	>50	1	1.7		3.5	5.5	7	8.9	12	18	89.8
<b>Nutrients (mg/L)</b>													
NH3 as N	60	34	N/A				0.01	0.02	0.02	0.02	0.04	0.12	0.21
NO2 + NO3 as N	60	6	>10	0	0		0.02	0.02	0.15	0.44	0.62	0.8	0.96
TKN as N	60	1	N/A				0.2	0.3	0.35	0.5	0.7	0.8	1.5
Total Phosphorus	60	2	N/A				0.01	0.04	0.06	0.1	0.17	0.22	0.53

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	91	4	7	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** KENNETH CRK AT SR 1441 CHALYBEATE SPRINGS RD NR ANGIER  
**Station #:** B6320000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.51435 **Longitude:** -78.78622 **Stream class:** WS-IV  
**Agency:** MCFRBA **NC stream index:** 18-16-1-(2)

**Time period:** 01/20/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	2	3.3		3.6	5.4	6.5	8.7	11	12	15.3
	60	0	<5	3	5		3.6	5.4	6.5	8.7	11	12	15.3
pH (SU)	60	0	<6	1	1.7		5.3	6.4	6.5	6.7	6.8	7.1	7.6
	60	0	>9	0	0		5.3	6.4	6.5	6.7	6.8	7.1	7.6
Spec. conductance (umhos/cm at 25°C)	60	1	N/A				66	87	98	112	142	218	356
Water Temperature (°C)	60	0	>32	0	0		2.7	6.1	9.4	14.2	21.9	24.5	25.9
<b>Other</b>													
TSS (mg/L)	60	1	N/A				1	1	2	5	8.8	22.6	178
Turbidity (NTU)	60	0	>50	3	5		4.4	5.5	7	9.1	12.1	23.8	267
<b>Nutrients (mg/L)</b>													
NH3 as N	60	18	N/A				0.02	0.02	0.02	0.03	0.07	0.18	0.93
NO2 + NO3 as N	60	2	>10	0	0		0.02	0.08	0.4	1	1.27	1.86	6.54
TKN as N	60	2	N/A				0.15	0.29	0.37	0.52	0.7	0.9	1.6
Total Phosphorus	60	1	N/A				0.01	0.05	0.1	0.2	0.41	0.64	1.45

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	139	9	15	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT US 401 AT LILLINGTON  
**Station #:** B6370000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.40653 **Longitude:** -78.81350 **Stream class:** WS-IV  
**Agency:** MCFRBA **NC stream index:** 18-(16.7)

**Time period:** 01/20/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	1	1.2		3.7	6.1	6.5	7.3	9.4	11.1	12.7
	85	0	<5	2	2.4		3.7	6.1	6.5	7.3	9.4	11.1	12.7
pH (SU)	85	0	<6	0	0		6.4	6.8	6.9	7.3	7.5	7.7	7.9
	85	0	>9	0	0		6.4	6.8	6.9	7.3	7.5	7.7	7.9
Spec. conductance (umhos/cm at 25°C)	85	1	N/A				67	112	134	155	186	212	265
Water Temperature (°C)	85	0	>32	1	1.2		5.1	8.7	13.5	22.2	27.4	29.4	32.4
<b>Other</b>													
TSS (mg/L)	60	0	N/A				2	4.1	8	14.5	24	35.8	61
Turbidity (NTU)	60	0	>50	3	5		3.1	5.1	8.9	13.8	20.2	45.6	62
<b>Nutrients (mg/L)</b>													
NH3 as N	60	28	N/A				0.01	0.02	0.02	0.02	0.06	0.11	0.28
NO2 + NO3 as N	60	1	>10	0	0		0.02	0.26	0.4	0.56	0.73	0.93	1.36
TKN as N	60	0	N/A				0.2	0.39	0.46	0.64	0.8	1.09	4.9
Total Phosphorus	60	0	N/A				0.02	0.06	0.07	0.1	0.12	0.21	0.5
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	22	0	N/A				110	197	238	454	1132	1512	3170
Arsenic, total (As)	21	21	>10	0	0		5	5	10	10	10	10	10
Cadmium, total (Cd)	22	22	>2	0	0		0.2	0.5	0.5	0.5	0.5	0.5	1
Chromium, total (Cr)	22	22	>50	0	0		5	5	5	5	5	10	10
Copper, total (Cu)	22	6	>7	4	18.2	93.8	2	2	2	3	6	11	12
Iron, total (Fe)	22	0	>1000	7	31.8	99.9	249	326	600	814	1448	2304	2640
Lead, total (Pb)	22	3	>25	0	0		0	1	1	1	1	2	5
Manganese, total (Mn)	22	0	>200	0	0		39	60	65	98	157	192	195
Mercury, total (Hg)	22	0	>0.012	0	0		0.002	0.002	0.003	0.004	0.006	0.009	0.012
Nickel, total (Ni)	22	4	>25	0	0		0	1	1	2	2	5	5
Zinc, total (Zn)	22	15	>50	0	0		10	10	10	10	15	21	23

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	94	8	13	

**Key:**

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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT US 401 AT LILLINGTON  
**Station #:** B6370000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.40653 **Longitude:** -78.81350 **Stream class:** WS-IV  
**Agency:** NCAMBNT **NC stream index:** 18-(16.7)

**Time period:** 03/30/2004 to 12/08/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	51	0	<4	0	0		5.2	6	6.9	7.6	10.3	11.1	12.7
	51	0	<5	0	0		5.2	6	6.9	7.6	10.3	11.1	12.7
pH (SU)	50	0	<6	2	4		5.9	6.2	6.4	6.7	6.9	7.2	7.4
	50	0	>9	0	0		5.9	6.2	6.4	6.7	6.9	7.2	7.4
Spec. conductance (umhos/cm at 25°C)	52	0	N/A				70	94	123	148	174	220	247
Water Temperature (°C)	52	0	>32	0	0		5.7	7.7	11.5	17.2	26.1	28.8	31.7
<b>Other</b>													
TSS (mg/L)	18	2	N/A				4.5	5.7	8.3	16	22	36.4	76
Turbidity (NTU)	53	0	>50	3	5.7		3.2	5.9	8.6	15	24	46	210
<b>Nutrients (mg/L)</b>													
NH3 as N	53	16	N/A				0.02	0.02	0.02	0.03	0.04	0.08	0.28
NO2 + NO3 as N	53	0	>10	0	0		0.03	0.24	0.43	0.61	0.77	0.88	1.3
TKN as N	53	0	N/A				0.38	0.48	0.56	0.63	0.7	0.82	1.7
Total Phosphorus	53	0	N/A				0.05	0.07	0.09	0.11	0.15	0.18	0.45
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	11	0	N/A				250	264	380	720	890	1840	2000
Arsenic, total (As)	11	11	>10	0	0		5	5	5	5	5	9	10
Cadmium, total (Cd)	11	11	>2	0	0		1	1.2	2	2	2	2	2
Chromium, total (Cr)	11	11	>50	0	0		10	13	25	25	25	25	25
Copper, total (Cu)	11	0	>7	0	0		3	3	3	4	4	5	5
Iron, total (Fe)	11	0	>1000	5	45.5	100	560	590	730	970	1500	2060	2100
Lead, total (Pb)	11	11	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	11	0	>200	1	9.1		70	70	76	110	130	362	420
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	11	11	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	11	7	>50	0	0		10	10	10	10	14	17	17

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
53	67	6	11

**Key:**

# result: number of observations  
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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BUIES CRK AT KEITH HILLS GOLF COURSE MAINT SHOP AT BUIES CREEK  
**Station #:** B6485000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.39070 **Longitude:** -78.75270 **Stream class:** WS-IV  
**Agency:** MCFRBA **NC stream index:** 18-18

**Time period:** 01/20/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	5	8.3		1.1	4.1	5.9	8.4	10.8	11.7	14.4
	60	0	<5	10	16.7	96.6	1.1	4.1	5.9	8.4	10.8	11.7	14.4
pH (SU)	60	0	<6	4	6.7		4.8	6.1	6.3	6.6	6.9	7.3	7.5
	60	0	>9	0	0		4.8	6.1	6.3	6.6	6.9	7.3	7.5
Spec. conductance (umhos/cm at 25°C)	60	3	N/A				47	71	77	83	102	142	243
Water Temperature (°C)	59	0	>32	0	0		2.2	6.7	9.7	15.1	22.8	25.1	27
<b>Other</b>													
TSS (mg/L)	60	3	N/A				1	2	2	4	5.8	9	72
Turbidity (NTU)	60	0	>50	1	1.7		1.4	2.7	3.9	5	7	10.3	83.7
<b>Nutrients (mg/L)</b>													
NH3 as N	60	28	N/A				0.02	0.02	0.02	0.02	0.06	0.15	0.42
NO2 + NO3 as N	60	4	>10	0	0		0.02	0.02	0.05	0.1	0.2	0.32	0.75
TKN as N	60	1	N/A				0.2	0.34	0.47	0.63	0.9	1.2	2.1
Total Phosphorus	60	7	N/A				0.01	0.02	0.03	0.06	0.08	0.25	0.47

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	128	7	12	

**Key:**

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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** UPPER LITTLE RIV AT SR 1222 NR BROADWAY  
**Station #:** B6820050 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.40674 **Longitude:** -79.06280 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-20-(8)  
**Time period:** 07/02/2008 to 12/18/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	6	0	<4	0	0		6.5	6.5	6.9	7.7	10.2	11	11
	6	0	<5	0	0		6.5	6.5	6.9	7.7	10.2	11	11
pH (SU)	6	0	<6	0	0		6.2	6.2	6.2	6.4	6.8	6.8	6.8
	6	0	>9	0	0		6.2	6.2	6.2	6.4	6.8	6.8	6.8
Spec. conductance (umhos/cm at 25°C)	6	0	N/A				55	55	61	66	98	120	120
Water Temperature (°C)	6	0	>32	0	0		9.1	9.1	10.4	20.9	23.8	25.6	25.6
<b>Other</b>													
TSS (mg/L)	6	0	N/A				1	1	3.2	5	9	9	9
Turbidity (NTU)	6	0	>50	0	0		3.9	3.9	4.5	6.5	8.4	10.4	10.4
<b>Nutrients (mg/L)</b>													
NH3 as N	6	4	N/A				0.02	0.02	0.02	0.02	0.04	0.04	0.04
NO2 + NO3 as N	6	0	N/A				0.05	0.05	0.07	0.13	0.85	1.03	1.03
TKN as N	6	0	N/A				0.49	0.49	0.66	0.79	1.16	1.4	1.4
Total Phosphorus	6	0	N/A				0.04	0.04	0.05	0.08	0.2	0.3	0.3

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
6	50	0	0	

**Key:**

# result: number of observations  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** UPPER LITTLE RIV AT SR 2021 NR LILLINGTON  
**Station #:** B6830000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.32656 **Longitude:** -78.72378 **Stream class:** WS-IV  
**Agency:** MCFRBA **NC stream index:** 18-20-(24.5)

**Time period:** 01/20/2004 to 12/18/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	0	0		6	6.8	7.5	8.5	10.2	11.9	14.4
	60	0	<5	0	0		6	6.8	7.5	8.5	10.2	11.9	14.4
pH (SU)	60	0	<6	13	21.7	99.8	5.5	5.9	6.1	6.5	6.7	7.1	7.5
	60	0	>9	0	0		5.5	5.9	6.1	6.5	6.7	7.1	7.5
Spec. conductance (umhos/cm at 25°C)	60	4	N/A				40	52	56	64	77	103	145
Water Temperature (°C)	60	0	>32	0	0		3.4	6.4	9.8	16.1	23.2	25.7	27.8
<b>Other</b>													
TSS (mg/L)	60	11	N/A				1	1	1.2	3	6	13.9	47
Turbidity (NTU)	60	0	>50	0	0		1.5	2.2	3.5	5.2	6.9	11.9	47
<b>Nutrients (mg/L)</b>													
NH3 as N	60	47	N/A				0.01	0.02	0.02	0.02	0.02	0.06	0.29
NO2 + NO3 as N	60	1	>10	0	0		0.02	0.12	0.19	0.25	0.34	0.46	1.09
TKN as N	60	3	N/A				0.2	0.22	0.32	0.45	0.56	0.79	1.4
Total Phosphorus	60	17	N/A				0.01	0.02	0.02	0.03	0.05	0.11	0.31
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	69	4	7										

**Key:**

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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** UPPER LITTLE RIV AT SR 2021 NR LILLINGTON  
**Station #:** B6830000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.32656 **Longitude:** -78.72378 **Stream class:** WS-IV  
**Agency:** NCAMBNT **NC stream index:** 18-20-(24.5)  
**Time period:** 03/30/2004 to 12/08/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	51	0	<4	0	0		4.1	5.4	6.3	8.1	10.2	11.6	12.2
	51	0	<5	3	5.9		4.1	5.4	6.3	8.1	10.2	11.6	12.2
pH (SU)	50	0	<6	5	10	61.6	5.3	5.8	6.2	6.3	6.6	6.8	7.2
	50	0	>9	0	0		5.3	5.8	6.2	6.3	6.6	6.8	7.2
Spec. conductance (umhos/cm at 25°C)	52	0	N/A				40	48	53	64	74	108	142
Water Temperature (°C)	52	0	>32	0	0		4.8	6.3	10.7	15.3	23.5	25.5	28
<b>Other</b>													
TSS (mg/L)	18	6	N/A				2.5	2.8	5.8	6.8	12	15.5	20
Turbidity (NTU)	53	0	>50	0	0		1.4	1.9	3.9	5.4	8.5	12	15
<b>Nutrients (mg/L)</b>													
NH3 as N	53	31	N/A				0.02	0.02	0.02	0.02	0.02	0.04	0.08
NO2 + NO3 as N	53	1	>10	0	0		0.02	0.07	0.16	0.23	0.34	0.42	0.5
TKN as N	53	0	N/A				0.22	0.29	0.33	0.41	0.52	0.6	0.82
Total Phosphorus	53	1	N/A				0.02	0.02	0.02	0.03	0.04	0.06	0.06
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	11	0	N/A				52	78	210	310	510	686	720
Arsenic, total (As)	11	11	>10	0	0		5	5	5	5	5	9	10
Cadmium, total (Cd)	11	11	>2	0	0		1	1.2	2	2	2	2	2
Chromium, total (Cr)	11	11	>50	0	0		10	13	25	25	25	25	25
Copper, total (Cu)	11	9	>7	0	0		2	2	2	2	2	3	3
Iron, total (Fe)	11	0	>1000	6	54.5	100	580	610	800	1100	1700	1900	1900
Lead, total (Pb)	11	11	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	11	0	>200	1	9.1		42	43	82	100	130	332	370
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	11	11	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	11	9	>50	0	0		10	10	10	10	10	14	15
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
53	66	3	6										

**Key:**  
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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NC 217 AT ERWIN  
**Station #:** B6840000  
**Latitude:** 35.31224      **Longitude:** -78.69250  
**Agency:** MCFRBA

**Hydrologic Unit Code:** 03030004  
**Stream class:** WS-V  
**NC stream index:** 18-(20.7)

**Time period:** 01/20/2004 to 12/18/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	0	0		4.1	6.7	7.2	8	10.1	11.6	13.1
	85	0	<5	1	1.2		4.1	6.7	7.2	8	10.1	11.6	13.1
pH (SU)	85	0	<6	0	0		6.1	6.7	7	7.3	7.5	7.7	8.1
	85	0	>9	0	0		6.1	6.7	7	7.3	7.5	7.7	8.1
Spec. conductance (umhos/cm at 25°C)	85	2	N/A				57	102	128	149	174	201	277
Water Temperature (°C)	85	0	>32	0	0		4.9	8.6	14	22.8	28.1	29.7	31.3
<b>Other</b>													
TSS (mg/L)	60	2	N/A				1	2	5	10	18.8	41.9	145
Turbidity (NTU)	60	0	>50	2	3.3		2	4.1	5.2	9.8	21	33.5	77.2
<b>Nutrients (mg/L)</b>													
NH3 as N	60	32	N/A				0.01	0.02	0.02	0.02	0.05	0.08	0.21
NO2 + NO3 as N	60	2	>10	1	1.7		0.02	0.29	0.44	0.54	0.67	0.81	19.8
TKN as N	60	3	N/A				0.2	0.34	0.44	0.6	0.78	1.06	2
Total Phosphorus	60	0	N/A				0.02	0.04	0.07	0.1	0.13	0.16	0.42
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	22	0	N/A				85	99	192	366	970	1224	1280
Arsenic, total (As)	22	22	>10	0	0		5	5	10	10	10	10	10
Cadmium, total (Cd)	22	22	>2	0	0		0.2	0.5	0.5	0.5	0.5	0.5	1
Chromium, total (Cr)	22	22	>50	0	0		5	5	5	5	5	10	10
Copper, total (Cu)	22	14	>7	0	0		2	2	2	2	4	5	6
Iron, total (Fe)	22	0	>1000	8	36.4	100	127	222	512	763	1592	2018	2750
Lead, total (Pb)	22	9	>25	0	0		0	0	0	1	1	2	5
Manganese, total (Mn)	22	1	>200	0	0		10	20	34	45	109	164	175
Mercury, total (Hg)	22	0	>0.012	0	0		0.001	0.001	0.002	0.003	0.006	0.009	0.011
Nickel, total (Ni)	22	5	>25	0	0		0	1	1	1	2	5	5
Zinc, total (Zn)	22	18	>50	0	0		10	10	10	10	10	17	24

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	59	7	12	

**Key:**

# result: number of observations  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NC 217 AT ERWIN  
**Station #:** B6840000  
**Latitude:** 35.31224      **Longitude:** -78.69250  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030004  
**Stream class:** WS-V  
**NC stream index:** 18-(20.7)

**Time period:** 03/30/2004 to 12/13/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	28	0	<4	0	0		6.1	6.2	7.2	8.6	10.7	11.4	11.9
	28	0	<5	0	0		6.1	6.2	7.2	8.6	10.7	11.4	11.9
pH (SU)	28	0	<6	0	0		6.1	6.2	6.3	6.7	6.9	7.2	7.5
	28	0	>9	0	0		6.1	6.2	6.3	6.7	6.9	7.2	7.5
Spec. conductance (umhos/cm at 25°C)	29	0	N/A				74	89	114	135	154	179	219
Water Temperature (°C)	29	0	>32	0	0		6.7	8.3	10.2	18	24.8	28.6	30.9
<b>Other</b>													
TSS (mg/L)	10	0	N/A				3.8	3.9	7	17	24.8	27	27
Turbidity (NTU)	29	0	>50	1	3.4		3.2	5	8.2	13	25.5	36	80
<b>Nutrients (mg/L)</b>													
NH3 as N	29	11	N/A				0.02	0.02	0.02	0.02	0.04	0.1	0.16
NO2 + NO3 as N	29	0	>10	0	0		0.35	0.43	0.5	0.59	0.71	0.79	0.93
TKN as N	29	0	N/A				0.27	0.4	0.47	0.6	0.69	0.78	0.8
Total Phosphorus	29	0	N/A				0.06	0.07	0.1	0.13	0.15	0.18	0.26
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	10	0	N/A				180	184	228	420	870	1263	1300
Arsenic, total (As)	10	10	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	10	10	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	10	10	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	10	0	>7	0	0		2	2	2	3	4	5	5
Iron, total (Fe)	10	0	>1000	4	40	99.8	420	432	675	875	1400	1580	1600
Lead, total (Pb)	10	10	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	10	0	>200	0	0		36	36	49	90	152	196	200
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	10	10	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	10	9	>50	0	0		10	10	10	10	10	11	11

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
29	49	2	7	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LOWER LITTLE RIV AT SR 2023 NR LOBELIA  
**Station #:** B7245000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.20371 **Longitude:** -79.21592 **Stream class:** WS-III HQW  
**Agency:** NCAMBNT **NC stream index:** 18-23-(10.7)

**Time period:** 02/09/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	49	0	<4	0	0		4.8	6.1	6.6	8.4	10.1	11	12.9
	49	0	<5	1	2		4.8	6.1	6.6	8.4	10.1	11	12.9
pH (SU)	52	0	<6	33	63.5	100	4.5	5.2	5.5	5.8	6.2	6.5	7.2
	52	0	>9	0	0		4.5	5.2	5.5	5.8	6.2	6.5	7.2
Spec. conductance (umhos/cm at 25°C)	52	0	N/A				32	33	34	37	41	45	56
Water Temperature (°C)	53	0	>32	0	0		3.5	7	9.4	15.2	22.5	24.7	25.9
<b>Other</b>													
TSS (mg/L)	17	10	N/A				2.5	2.5	2.8	4.2	6.2	12	12
Turbidity (NTU)	53	0	>50	0	0		1	1.8	2.6	3.1	3.8	5.9	14
<b>Nutrients (mg/L)</b>													
NH3 as N	53	38	N/A				0.02	0.02	0.02	0.02	0.02	0.03	0.07
NO2 + NO3 as N	53	4	>10	0	0		0.02	0.02	0.04	0.09	0.15	0.21	0.33
TKN as N	53	0	N/A				0.21	0.23	0.29	0.36	0.43	0.5	0.7
Total Phosphorus	53	6	N/A				0.02	0.02	0.02	0.02	0.03	0.04	0.05
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	11	0	N/A				130	130	170	200	230	288	300
Arsenic, total (As)	11	11	>10	0	0		5	5	5	5	5	5	5
Cadmium, total (Cd)	11	11	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	11	11	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	11	11	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	11	0	>1000	3	27.3	98.1	330	346	490	720	1200	1380	1400
Lead, total (Pb)	11	11	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	11	0	>200	0	0		16	16	18	25	28	37	39
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	11	11	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	11	10	>50	0	0		10	10	10	10	10	13	14
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
52	56	2	4										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LOWER LITTLE RIV AT SR 1451 AT MANCHESTER  
**Station #:** B7280000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.19323 **Longitude:** -78.98561 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-23-(24)

**Time period:** 01/20/2004 to 06/06/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	54	0	<4	0	0		5.8	7.3	7.9	9.2	10.9	11.9	14.1
	54	0	<5	0	0		5.8	7.3	7.9	9.2	10.9	11.9	14.1
pH (SU)	54	0	<6	21	38.9	100	5	5.3	5.7	6.2	6.5	7	7.6
	54	0	>9	0	0		5	5.3	5.7	6.2	6.5	7	7.6
Spec. conductance (umhos/cm at 25°C)	54	25	N/A				40	46	47	47	64	96	103
Water Temperature (°C)	54	0	>32	0	0		3.8	6.2	10.5	15.8	23.6	26.2	27.3
<b>Other</b>													
TSS (mg/L)	54	3	N/A				1	1	2	3.9	7	10.5	110
Turbidity (NTU)	54	0	>50	1	1.9		1.4	2.3	2.9	3.5	5.3	8.5	120
<b>Nutrients (mg/L)</b>													
NH3 as N	54	27	N/A				0.01	0.02	0.02	0.02	0.04	0.13	0.18
NO2 + NO3 as N	54	1	N/A				0.02	0.16	0.29	0.47	0.77	1.72	4.18
TKN as N	54	7	N/A				0.2	0.2	0.3	0.41	0.6	0.7	1.1
Total Phosphorus	54	5	N/A				0.01	0.02	0.04	0.07	0.15	0.3	0.38

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
54	112	7	13

**Key:**

# result: number of observations  
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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LOWER LITTLE RIV AT SR 1451 AT MANCHESTER  
**Station #:** B7280000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.19323 **Longitude:** -78.98561 **Stream class:** C  
**Agency:** NCAMBNT **NC stream index:** 18-23-(24)  
**Time period:** 03/30/2004 to 12/08/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	51	0	<4	0	0		6.4	7	7.4	9.1	10.8	11.9	12.6
	51	0	<5	0	0		6.4	7	7.4	9.1	10.8	11.9	12.6
pH (SU)	50	0	<6	22	44	100	5	5.4	5.6	6.1	6.5	6.9	7
	50	0	>9	0	0		5	5.4	5.6	6.1	6.5	6.9	7
Spec. conductance (umhos/cm at 25°C)	52	0	N/A				29	34	37	42	47	53	99
Water Temperature (°C)	52	0	>32	0	0		5.4	7.3	11	15.4	23.5	25.1	27
<b>Other</b>													
TSS (mg/L)	18	8	N/A				2.5	2.5	3.2	6.1	6.2	8.1	9
Turbidity (NTU)	53	0	>50	0	0		1.3	2.3	2.8	3.7	5.2	10.4	20
<b>Nutrients (mg/L)</b>													
NH3 as N	5	1	N/A				0.02	0.02	0.02	0.03	0.05	0.07	0.07
NO2 + NO3 as N	5	0	N/A				0.14	0.14	0.22	0.46	0.88	1.2	1.2
TKN as N	5	0	N/A				0.37	0.37	0.4	0.44	0.52	0.59	0.59
Total Phosphorus	5	0	N/A				0.03	0.03	0.04	0.04	0.08	0.11	0.11
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	11	0	N/A				150	160	210	250	300	356	360
Arsenic, total (As)	11	11	>10	0	0		5	5	5	5	5	9	10
Cadmium, total (Cd)	11	11	>2	0	0		1	1.2	2	2	2	2	2
Chromium, total (Cr)	11	11	>50	0	0		10	13	25	25	25	25	25
Copper, total (Cu)	11	9	>7	0	0		2	2	2	2	2	4	4
Iron, total (Fe)	11	0	>1000	2	18.2	91	300	302	510	710	1000	1440	1500
Lead, total (Pb)	11	11	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	11	11	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	11	8	>50	0	0		10	10	10	10	11	13	13
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
53	140	9	17										

**Key:**

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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LOWER LITTLE RIV AT NC 210 NR SPRING LAKE  
**Station #:** B7300000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.20205 **Longitude:** -78.95300 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-23-(24)

**Time period:** 01/20/2004 to 12/18/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	0	0		6.7	7.2	7.8	9	10.8	12.1	14
	60	0	<5	0	0		6.7	7.2	7.8	9	10.8	12.1	14
pH (SU)	60	0	<6	25	41.7	100	5	5.2	5.6	6.1	6.6	6.7	7.3
	60	0	>9	0	0		5	5.2	5.6	6.1	6.6	6.7	7.3
Spec. conductance (umhos/cm at 25°C)	60	35	N/A				30	47	47	47	56	99	136
Water Temperature (°C)	60	0	>32	0	0		3.8	6.3	10.4	16.3	23.3	25.6	27
<b>Other</b>													
TSS (mg/L)	60	7	N/A				1	1	2	4	7	12	173
Turbidity (NTU)	60	0	>50	2	3.3		1.2	2.1	2.9	4	5.6	9.9	216
<b>Nutrients (mg/L)</b>													
NH3 as N	60	29	N/A				0.01	0.02	0.02	0.02	0.05	0.08	0.22
NO2 + NO3 as N	60	1	N/A				0.02	0.16	0.26	0.37	0.63	1.9	5.84
TKN as N	60	8	N/A				0.2	0.2	0.32	0.41	0.6	0.75	1.3
Total Phosphorus	60	3	N/A				0.01	0.02	0.04	0.07	0.17	0.3	0.45

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	104	9	15

**Key:**

# result: number of observations  
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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LOWER LITTLE RIV AT SR 1609 NR WALKERTOWN  
**Station #:** B7319100 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.25982 **Longitude:** -78.82307 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-23-24

**Time period:** 07/02/2008 to 12/18/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	6	0	<4	0	0		7.2	7.2	7.6	8.3	10.4	12	12
	6	0	<5	0	0		7.2	7.2	7.6	8.3	10.4	12	12
pH (SU)	6	0	<6	5	83.3		5.2	5.2	5.2	5.6	6.1	6.6	6.6
	6	0	>9	0	0		5.2	5.2	5.2	5.6	6.1	6.6	6.6
Spec. conductance (umhos/cm at 25°C)	6	4	N/A				47	47	47	47	72	103	103
Water Temperature (°C)	6	0	>32	0	0		7.2	7.2	10.4	19.4	24	24.8	24.8
<b>Other</b>													
TSS (mg/L)	6	0	N/A				2	2	2.8	3.5	4.5	6	6
Turbidity (NTU)	6	0	>50	0	0		2	2	3.3	4.5	5.9	6.8	6.8
<b>Nutrients (mg/L)</b>													
NH3 as N	6	5	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.02
NO2 + NO3 as N	6	0	N/A				0.2	0.2	0.28	0.51	1.53	2.95	2.95
TKN as N	6	0	N/A				0.33	0.33	0.38	0.52	1.02	1.08	1.08
Total Phosphorus	6	0	N/A				0.04	0.04	0.05	0.11	0.14	0.2	0.2

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
6	110	0	0	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level: applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT HOFFER WTP INTAKE AT FAYETTEVILLE  
**Station #:** B7480000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.08143 **Longitude:** -78.86355 **Stream class:** WS-IV CA  
**Agency:** MCFRBA **NC stream index:** 18-(25.5)

**Time period:** 01/19/2004 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	1	1.2		3.4	6.3	6.8	7.6	9.5	10.5	12.9
	85	0	<5	2	2.4		3.4	6.3	6.8	7.6	9.5	10.5	12.9
pH (SU)	85	0	<6	0	0		6.3	6.6	6.9	7.1	7.3	7.5	8.8
	85	0	>9	0	0		6.3	6.6	6.9	7.1	7.3	7.5	8.8
Spec. conductance (umhos/cm at 25°C)	85	1	N/A				56	97	114	132	150	181	236
Water Temperature (°C)	85	0	>32	0	0		5.4	8.2	13.4	22.4	27.3	29.3	31.9
<b>Other</b>													
TSS (mg/L)	60	1	N/A				1	3	6	10	18	32	143
Turbidity (NTU)	60	0	>50	1	1.7		1.7	5	5.6	8.2	15.9	27	129
<b>Nutrients (mg/L)</b>													
NH3 as N	60	31	N/A				0.02	0.02	0.02	0.02	0.06	0.09	0.29
NO2 + NO3 as N	60	1	>10	0	0		0.02	0.36	0.44	0.56	0.68	0.89	1.29
TKN as N	60	4	N/A				0.2	0.29	0.42	0.52	0.68	0.9	2.7
Total Phosphorus	60	3	N/A				0.01	0.04	0.07	0.09	0.12	0.19	3.69

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	61	3	5	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT I 95 BELOW FAYETTEVILLE  
**Station #:** B7500000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 34.98200 **Longitude:** -78.84782 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-(26)  
**Time period:** 01/19/2004 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	85	0	<4	1	1.2		2.7	5.9	6.5	7.3	9.3	10.7	12.5
	85	0	<5	1	1.2		2.7	5.9	6.5	7.3	9.3	10.7	12.5
pH (SU)	85	0	<6	0	0		6.2	6.7	6.9	7.1	7.3	7.6	8.9
	85	0	>9	0	0		6.2	6.7	6.9	7.1	7.3	7.6	8.9
Spec. conductance (umhos/cm at 25°C)	85	1	N/A				73	100	114	132	160	185	236
Water Temperature (°C)	85	0	>32	0	0		5.5	8.1	13.9	22.5	27.2	28.9	31.9
<b>Other</b>													
TSS (mg/L)	60	0	N/A				1	2.5	7	9	13.8	31.4	92
Turbidity (NTU)	60	0	>50	2	3.3		3.8	5	6.6	8.7	13.3	26.2	86
<b>Nutrients (mg/L)</b>													
NH3 as N	60	28	N/A				0.02	0.02	0.02	0.02	0.06	0.13	0.24
NO2 + NO3 as N	60	1	N/A				0.02	0.43	0.56	0.66	0.82	1.01	1.83
TKN as N	60	4	N/A				0.2	0.33	0.47	0.59	0.72	0.9	1.3
Total Phosphorus	60	0	N/A				0.01	0.04	0.08	0.1	0.14	0.2	0.43
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	22	0	N/A				88	142	208	278	346	1087	1200
Arsenic, total (As)	21	21	>10	0	0		5	6	10	10	10	10	10
Cadmium, total (Cd)	22	22	>2	0	0		0.2	0.5	0.5	0.5	0.5	0.5	1
Chromium, total (Cr)	22	22	>50	0	0		5	5	5	5	5	10	10
Copper, total (Cu)	22	12	>7	1	4.5		2	2	2	2	4	6	8
Iron, total (Fe)	22	0	>1000	6	27.3	99.6	223	358	551	694	1020	1669	2030
Lead, total (Pb)	22	3	>25	0	0		0	1	1	1	1	3	4
Mercury, total (Hg)	22	0	>0.012	0	0		0.001	0.001	0.002	0.003	0.004	0.007	0.01
Nickel, total (Ni)	22	4	>88	0	0		0	1	1	1	2	5	5
Zinc, total (Zn)	22	16	>50	1	4.5		10	10	10	10	10	19	70
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	60	Geomean	75	# > 400:	7	% > 400:	12						

**Key:**

# result: number of observations  
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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**

NCDENR, Division of Water Quality  
Basinwide Assessment Report

**Location:** CROSS CRK OFF BRAGG BLVD AT FAYETTEVILLE  
**Station #:** B7546500      **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.05863      **Longitude:** -78.88527      **Stream class:** C  
**Agency:** MCFRBA      **NC stream index:** 18-27-(3)  
**Time period:** 01/27/2005 to 03/31/2005

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
45	22	5	11

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CROSS CRK AT CROSS CREEK PARK AT FAYETTEVILLE  
**Station #:** B7547000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.05386 **Longitude:** -78.87691 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-27-(3)

**Time period:** 01/27/2005 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	42	0	<4	0	0		7.1	8.3	9	10.1	11.4	12.3	13.5
	42	0	<5	0	0		7.1	8.3	9	10.1	11.4	12.3	13.5
pH (SU)	42	0	<6	1	2.4		5.7	6.3	6.5	6.8	7	7.2	7.3
	42	0	>9	0	0		5.7	6.3	6.5	6.8	7	7.2	7.3
Spec. conductance (umhos/cm at 25°C)	42	1	N/A				47	51	56	60	66	73	105
Water Temperature (°C)	42	0	>32	0	0		6.7	7.9	11.9	18.2	22.8	26.6	27.5
<b>Other</b>													
TSS (mg/L)	42	9	N/A				1	1	1	2.5	4	6.7	23
Turbidity (NTU)	42	0	>50	0	0		2.6	3.2	3.7	4.5	6.3	10.2	25.6
<b>Nutrients (mg/L)</b>													
NH3 as N	42	16	N/A				0.02	0.02	0.02	0.03	0.06	0.08	0.39
NO2 + NO3 as N	42	1	N/A				0.02	0.09	0.15	0.2	0.3	0.37	0.5
TKN as N	42	8	N/A				0.12	0.2	0.22	0.31	0.42	0.59	1.08
Total Phosphorus	42	19	N/A				0.02	0.02	0.02	0.02	0.03	0.06	0.19

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
87	122	22	25	91.1

**Key:**

# result: number of observations  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BLOUNTS CRK AT US 301A PERSON ST AT FAYETTEVILLE  
**Station #:** B7584000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.04976 **Longitude:** -78.87033 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-27-5

**Time period:** 07/06/2005 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	42	0	<4	0	0		6.6	7.4	7.8	9.3	10.5	11.2	12.2
	42	0	<5	0	0		6.6	7.4	7.8	9.3	10.5	11.2	12.2
pH (SU)	42	0	<6	4	9.5		5.8	6	6.3	6.4	6.6	6.9	7.2
	42	0	>9	0	0		5.8	6	6.3	6.4	6.6	6.9	7.2
Spec. conductance (umhos/cm at 25°C)	42	0	N/A				54	64	74	80	85	89	93
Water Temperature (°C)	42	0	>32	0	0		7.6	9.3	12.5	18.6	23.3	26.4	27.4
<b>Other</b>													
TSS (mg/L)	42	3	N/A				1	1.3	3	4	7.2	16.2	32
Turbidity (NTU)	42	0	>50	0	0		2.8	3.7	4.7	6.5	9.1	17.7	33.4
<b>Nutrients (mg/L)</b>													
NH3 as N	42	2	N/A				0.02	0.02	0.05	0.08	0.11	0.25	0.53
NO2 + NO3 as N	42	1	N/A				0.02	0.2	0.3	0.38	0.45	0.48	0.57
TKN as N	42	4	N/A				0.2	0.2	0.27	0.34	0.5	0.75	1.98
Total Phosphorus	42	13	N/A				0.02	0.02	0.02	0.02	0.04	0.1	0.45

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
42	562	23	55	100

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**

NCDENR, Division of Water Quality  
Basinwide Assessment Report

**Location:** BLOUNTS CRK OFF ADAMS ST AT FAYETTEVILLE  
**Station #:** B7584005      **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.05036      **Longitude:** -78.86979      **Stream class:** C  
**Agency:** MCFRBA      **NC stream index:** 18-27-5  
**Time period:** 01/27/2005 to 03/31/2005

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400:	%Conf:
45	45	4	9	

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** UT TO CROSS CRK OFF ANNE ST AT FAYETTEVILLE  
**Station #:** B7584800 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.06282 **Longitude:** -78.87182 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-27-(3)

**Time period:** 01/27/2005 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	42	0	<4	1	2.4		3.4	4.6	5.7	7.3	9.2	9.7	11.1
	42	0	<5	6	14.3	87.9	3.4	4.6	5.7	7.3	9.2	9.7	11.1
pH (SU)	42	0	<6	0	0		6.6	6.7	6.8	6.9	7	7.1	7.2
	42	0	>9	0	0		6.6	6.7	6.8	6.9	7	7.1	7.2
Spec. conductance (umhos/cm at 25°C)	42	0	N/A				126	174	195	220	243	281	309
Water Temperature (°C)	42	0	>32	0	0		8.4	9.6	12.8	17.8	22.8	24.5	25.2
<b>Other</b>													
TSS (mg/L)	42	4	N/A				1	1	2.8	5.5	9	13	40
Turbidity (NTU)	42	0	>50	0	0		4.7	6.4	10.2	13.2	16.1	23.8	38.1
<b>Nutrients (mg/L)</b>													
NH3 as N	42	2	N/A				0.02	0.04	0.06	0.1	0.14	0.2	0.52
NO2 + NO3 as N	42	1	N/A				0.02	0.13	0.19	0.31	0.42	0.66	1.42
TKN as N	42	1	N/A				0.2	0.3	0.48	0.6	0.75	0.86	1.4
Total Phosphorus	42	8	N/A				0.02	0.02	0.02	0.04	0.06	0.09	0.14

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
87	275	36	41	100

**Key:**

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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** UT TO CROSS CRK AT CROSS CREEK WRF AT FAYETTEVILLE  
**Station #:** B7584900 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.05991 **Longitude:** -78.86468 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-27-(3)

**Time period:** 07/06/2005 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	40	0	<4	9	22.5	99.5	3	3.6	4	5.6	8.5	9	10.2
	40	0	<5	18	45	100	3	3.6	4	5.6	8.5	9	10.2
pH (SU)	40	0	<6	0	0		6	6.8	7.1	7.5	7.7	7.8	7.8
	40	0	>9	0	0		6	6.8	7.1	7.5	7.7	7.8	7.8
Spec. conductance (umhos/cm at 25°C)	39	1	N/A				47	562	722	858	997	1169	1547
Water Temperature (°C)	40	0	>32	0	0		4.5	7.3	9.8	15.7	21.8	23.7	24.8
<b>Other</b>													
TSS (mg/L)	40	1	N/A				1	4	6.2	12.5	19.5	31.6	66
Turbidity (NTU)	40	0	>50	1	2.5		2.8	6.6	10.5	18.6	24.5	29.9	60.6
<b>Nutrients (mg/L)</b>													
NH3 as N	40	0	N/A				0.04	0.59	2.8	4.43	9.25	16.42	26.7
NO2 + NO3 as N	40	0	N/A				0.08	0.35	1.1	2.26	3.55	4.5	5.25
TKN as N	40	0	N/A				0.5	2.83	5.26	7.19	11.05	15.71	31.2
Total Phosphorus	40	0	N/A				0.02	0.06	0.07	0.11	0.17	0.23	0.32

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
39	331	15	38	99.8

**Key:**

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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CROSS CRK AT US 301 BUS AND I 95 BUS AT FAYETTEVILLE  
**Station #:** B7590000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.05467 **Longitude:** -78.86223 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-27-(3)

**Time period:** 01/19/2004 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	0	0		4.1	7.6	8.3	9.3	11	12	13.4
	60	0	<5	2	3.3		4.1	7.6	8.3	9.3	11	12	13.4
pH (SU)	60	0	<6	1	1.7		5.9	6.4	6.6	6.9	7.2	7.4	8.1
	60	0	>9	0	0		5.9	6.4	6.6	6.9	7.2	7.4	8.1
Spec. conductance (umhos/cm at 25°C)	60	4	N/A				47	61	68	74	81	103	1189
Water Temperature (°C)	60	0	>32	0	0		5.3	8	10.7	17.3	23	26.6	28.2
<b>Other</b>													
TSS (mg/L)	60	12	N/A				1	1	1	3.5	6	10.8	40
Turbidity (NTU)	60	0	>50	0	0		2.2	3	3.6	4.6	6	15.7	35.6
<b>Nutrients (mg/L)</b>													
NH3 as N	60	15	N/A				0.01	0.02	0.02	0.05	0.08	0.14	1.5
NO2 + NO3 as N	60	1	N/A				0.02	0.15	0.23	0.31	0.41	0.46	1.9
TKN as N	60	6	N/A				0.18	0.2	0.27	0.39	0.5	0.79	17.9
Total Phosphorus	60	25	N/A				0.01	0.02	0.02	0.02	0.04	0.17	0.59

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	256	22	37	99.9

**Key:**

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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NC 24 AT FAYETTEVILLE  
**Station #:** B7600000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 35.04990 **Longitude:** -78.85745 **Stream class:** C  
**Agency:** NCAMBNT **NC stream index:** 18-(26)  
**Time period:** 03/30/2004 to 12/08/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	52	0	<4	0	0		5.5	5.8	6.6	8.1	10.1	11.3	12.3
	52	0	<5	0	0		5.5	5.8	6.6	8.1	10.1	11.3	12.3
pH (SU)	50	0	<6	0	0		6	6.2	6.4	6.7	6.9	7.1	7.7
	50	0	>9	0	0		6	6.2	6.4	6.7	6.9	7.1	7.7
Spec. conductance (umhos/cm at 25°C)	52	0	N/A				58	84	98	126	147	186	228
Water Temperature (°C)	52	0	>32	0	0		6.3	8.5	11.6	17.4	26.3	28.9	31.3
<b>Other</b>													
TSS (mg/L)	18	2	N/A				6.2	6.2	7.9	15.5	20.5	37.8	72
Turbidity (NTU)	53	0	>50	2	3.8		3	5.9	9.1	12	19.5	36.6	100
<b>Nutrients (mg/L)</b>													
NH3 as N	53	24	N/A				0.02	0.02	0.02	0.02	0.04	0.06	0.09
NO2 + NO3 as N	53	1	N/A				0.02	0.44	0.53	0.65	0.82	1.06	1.3
TKN as N	53	0	N/A				0.37	0.43	0.5	0.58	0.67	0.79	1
Total Phosphorus	53	0	N/A				0.06	0.08	0.1	0.12	0.14	0.19	0.27
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				260	272	420	595	900	3500	4400
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	9	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	12	0	>7	0	0		2	2	2	3	4	6	6
Iron, total (Fe)	12	0	>1000	7	58.3	100	650	665	750	1100	1300	3550	4300
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	8	>50	0	0		10	10	10	10	11	20	21
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
53	73	7	13										

**Key:**

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 # ND: number of observations reported to be below detection level (non-detect)  
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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKFISH CRK AT US 401 BYPASS NR RAEFORD  
**Station #:** B7679300 **Hydrologic Unit Code:** 03030004  
**Latitude:** 34.99932 **Longitude:** -79.21514 **Stream class:** B  
**Agency:** MCFRBA **NC stream index:** 18-31-(12)

**Time period:** 01/19/2004 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	1	1.7		3.3	7.3	7.9	9.1	10.4	11.7	12.8
	60	0	<5	1	1.7		3.3	7.3	7.9	9.1	10.4	11.7	12.8
pH (SU)	60	1	<6	60	100	100	3.1	3.6	3.7	4	4.5	5	5.8
	60	1	>9	0	0		3.1	3.6	3.7	4	4.5	5	5.8
Spec. conductance (umhos/cm at 25°C)	60	59	N/A				21	41	47	47	47	47	103
Water Temperature (°C)	60	0	>32	0	0		6.8	8.3	11.4	16.6	20.9	23.5	24.7
<b>Other</b>													
TSS (mg/L)	60	7	N/A				1	1	2	4	6	9.7	20
Turbidity (NTU)	60	0	>50	0	0		1.4	1.8	2.1	2.7	3.6	4.8	17
<b>Nutrients (mg/L)</b>													
NH3 as N	60	48	N/A				0.01	0.02	0.02	0.02	0.02	0.05	0.15
NO2 + NO3 as N	60	7	N/A				0.02	0.03	0.05	0.06	0.09	0.1	0.48
TKN as N	60	23	N/A				0.12	0.2	0.2	0.2	0.39	0.5	4.8
Total Phosphorus	60	46	N/A				0.01	0.02	0.02	0.02	0.02	0.07	0.32

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	46	2	3	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKFISH CRK AT SR 1432 NR RAEFORD  
**Station #:** B7700000  
**Latitude:** 34.96826      **Longitude:** -79.10959  
**Agency:** MCFRBA

**Hydrologic Unit Code:** 03030004  
**Stream class:** B  
**NC stream index:** 18-31-(18)

**Time period:** 01/19/2004 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	2	3.3		3.5	6.5	7.6	8.9	10.2	11.3	12.8
	60	0	<5	2	3.3		3.5	6.5	7.6	8.9	10.2	11.3	12.8
pH (SU)	60	0	<6	47	78.3	100	3.9	4.5	4.9	5.5	5.9	6.3	6.7
	60	0	>9	0	0		3.9	4.5	4.9	5.5	5.9	6.3	6.7
Spec. conductance (umhos/cm at 25°C)	60	44	N/A				27	47	47	47	50	73	103
Water Temperature (°C)	60	0	>32	0	0		6.7	8	11.5	17.1	21.6	24.4	25.4
<b>Other</b>													
TSS (mg/L)	60	8	N/A				1	1	2	3	5	9.8	24
Turbidity (NTU)	60	0	>50	0	0		1.6	2	2.3	3	4	5	31.1
<b>Nutrients (mg/L)</b>													
NH3 as N	60	23	N/A				0.02	0.02	0.02	0.03	0.1	0.15	0.51
NO2 + NO3 as N	60	2	N/A				0.02	0.16	0.26	0.39	0.52	0.72	0.96
TKN as N	60	7	N/A				0.2	0.2	0.28	0.39	0.6	0.9	12.2
Total Phosphorus	60	3	N/A				0.01	0.03	0.07	0.13	0.3	0.49	0.74

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	144	15	25	86.9

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKFISH CRK AT SR 1432 NR RAEFORD  
**Station #:** B7700000  
**Latitude:** 34.96826      **Longitude:** -79.10959  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030004  
**Stream class:** B  
**NC stream index:** 18-31-(18)

**Time period:** 02/10/2004 to 12/02/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	53	0	<4	0	0		5.9	6.2	6.9	8.2	9.6	10.5	11.9
	53	0	<5	0	0		5.9	6.2	6.9	8.2	9.6	10.5	11.9
pH (SU)	52	0	<6	29	55.8	100	3.6	4.9	5.4	5.9	6.5	7.1	7.6
	52	0	>9	0	0		3.6	4.9	5.4	5.9	6.5	7.1	7.6
Spec. conductance (umhos/cm at 25°C)	53	0	N/A				23	24	27	32	42	59	71
Water Temperature (°C)	54	0	>32	0	0		4.9	8.4	11	16.4	22.1	24.2	26.2
<b>Other</b>													
TSS (mg/L)	18	9	N/A				2.5	2.5	3.8	5.4	6.2	8.9	15
Turbidity (NTU)	54	0	>50	0	0		1.5	2	2.7	3.5	4.3	6.4	9.1
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	11	0	N/A				120	124	160	180	300	398	410
Arsenic, total (As)	11	11	>10	0	0		5	5	5	5	5	9	10
Cadmium, total (Cd)	11	11	>2	0	0		1	1.2	2	2	2	2	2
Chromium, total (Cr)	11	11	>50	0	0		10	13	25	25	25	25	25
Copper, total (Cu)	11	11	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	11	0	>1000	0	0		190	196	280	460	850	916	930
Lead, total (Pb)	11	11	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	11	11	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	11	9	>50	0	0		10	10	10	10	10	17	17

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
53	101	8	15

**Key:**

# result: number of observations  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKFISH CRK AT SR 2350 NR CEDAR CREEK  
**Station #:** B8224000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 34.96101 **Longitude:** -78.89911 **Stream class:** C  
**Agency:** NCAMBNT **NC stream index:** 18-31-(23)

**Time period:** 02/10/2004 to 12/02/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	54	0	<4	0	0		6.2	7	7.5	9	10.7	11.6	12.9
	54	0	<5	0	0		6.2	7	7.5	9	10.7	11.6	12.9
pH (SU)	53	0	<6	26	49.1	100	4.8	5.3	5.6	6	6.4	6.8	7.1
	53	0	>9	0	0		4.8	5.3	5.6	6	6.4	6.8	7.1
Spec. conductance (umhos/cm at 25°C)	54	0	N/A				27	32	33	36	40	42	47
Water Temperature (°C)	55	0	>32	0	0		3.7	8.1	10.3	16.5	23.2	25.6	27.8
<b>Other</b>													
TSS (mg/L)	19	3	N/A				4.5	5.5	6.2	7.2	11	40	41
Turbidity (NTU)	55	0	>50	2	3.6		2.9	4.5	5.5	7.3	12	16.8	80
<b>Nutrients (mg/L)</b>													
NH3 as N	55	21	N/A				0.02	0.02	0.02	0.02	0.03	0.07	0.15
NO2 + NO3 as N	55	0	N/A				0.06	0.14	0.21	0.32	0.39	0.43	0.61
TKN as N	55	0	N/A				0.2	0.24	0.28	0.32	0.44	0.53	0.67
Total Phosphorus	55	0	N/A				0.03	0.04	0.05	0.08	0.11	0.15	0.66
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				160	166	190	300	530	897	900
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1.3	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	14	25	25	25	25	25
Copper, total (Cu)	12	8	>7	0	0		2	2	2	2	2	4	4
Iron, total (Fe)	12	0	>1000	4	33.3	99.6	330	360	438	805	1175	1370	1400
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	11	11	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	8	>50	0	0		10	10	10	10	16	21	21
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	54	Geomean	106	# > 400:	6	% > 400:	11						

**Key:**

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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKFISH CRK AT NC 87 NR FAYETTEVILLE  
**Station #:** B8230000 **Hydrologic Unit Code:** 03030004  
**Latitude:** 34.95608 **Longitude:** -78.84405 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-31-(23)

**Time period:** 01/19/2004 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		4.6	7.5	8	9.2	11	12	12.7
	58	0	<5	1	1.7		4.6	7.5	8	9.2	11	12	12.7
pH (SU)	58	0	<6	37	63.8	100	4.5	5.2	5.3	5.7	6.1	6.4	6.6
	58	0	>9	0	0		4.5	5.2	5.3	5.7	6.1	6.4	6.6
Spec. conductance (umhos/cm at 25°C)	58	51	N/A				40	47	47	47	47	54	103
Water Temperature (°C)	58	0	>32	0	0		6.6	8	11.6	17.4	22.9	25.9	27.3
<b>Other</b>													
TSS (mg/L)	58	1	N/A				1	4	5.8	8	13	21.5	70
Turbidity (NTU)	58	0	>50	1	1.7		3.6	4	4.5	6	9.1	13.4	92
<b>Nutrients (mg/L)</b>													
NH3 as N	58	37	N/A				0.02	0.02	0.02	0.02	0.04	0.06	0.3
NO2 + NO3 as N	58	1	N/A				0.02	0.16	0.23	0.32	0.42	0.49	0.62
TKN as N	58	6	N/A				0.2	0.2	0.25	0.4	0.65	0.91	11.2
Total Phosphorus	58	3	N/A				0.01	0.03	0.04	0.07	0.11	0.21	0.47

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
58	89	9	16

**Key:**

# result: number of observations  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT DUPONT WATER INTAKE UPS LOCK AND DAM 3  
**Station #:** B8290000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.84945 **Longitude:** -78.82629 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-(26)

**Time period:** 03/08/2004 to 12/10/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		4.6	5.6	6.4	7.2	8.7	10.4	12.5
	83	0	<5	1	1.2		4.6	5.6	6.4	7.2	8.7	10.4	12.5
pH (SU)	83	0	<6	1	1.2		5.9	6.5	6.7	7	7.3	7.7	8.6
	83	0	>9	0	0		5.9	6.5	6.7	7	7.3	7.7	8.6
Spec. conductance (umhos/cm at 25°C)	83	1	N/A				72	97	105	123	145	164	212
Water Temperature (°C)	83	0	>32	0	0		5.6	8.7	14.9	22.6	27.5	28.8	31.4
<b>Other</b>													
Chlorophyll a (ug/L)	56	8	>40	2	3.6		1	1	2	4	6	25	42
TSS (mg/L)	59	0	N/A				1	4	7	10	12	25	466
Turbidity (NTU)	59	0	>50	2	3.4		3.1	4.6	6.4	9	13.2	24.6	247
<b>Nutrients (mg/L)</b>													
NH3 as N	59	19	N/A				0.02	0.02	0.02	0.03	0.06	0.1	0.2
NO2 + NO3 as N	59	1	N/A				0.02	0.46	0.58	0.7	0.79	0.96	1.55
TKN as N	59	1	N/A				0.2	0.35	0.41	0.6	0.8	1.02	3
Total Phosphorus	59	1	N/A				0.01	0.07	0.09	0.12	0.15	0.19	0.43
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	21	0	N/A				66	151	190	279	346	1009	1100
Arsenic, total (As)	21	21	>10	0	0		5	6	10	10	10	10	10
Cadmium, total (Cd)	21	21	>2	0	0		0.2	0.5	0.5	0.5	0.5	0.5	0.5
Chromium, total (Cr)	21	21	>50	0	0		5	5	5	5	5	9	10
Copper, total (Cu)	21	14	>7	0	0		2	2	2	2	4	4	4
Iron, total (Fe)	21	0	>1000	3	14.3	84.8	289	485	562	671	846	1496	1810
Lead, total (Pb)	21	3	>25	0	0		0	0	1	1	1	1	1
Mercury, total (Hg)	21	0	>0.012	0	0		0.001	0.001	0.002	0.003	0.005	0.006	0.007
Nickel, total (Ni)	21	2	>88	0	0		1	1	1	1	2	4	5
Zinc, total (Zn)	21	15	>50	0	0		10	10	10	10	12	19	21

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
58	51	2	3	

**Key:**

# result: number of observations  
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 Results not meeting EL: number and percentages of observations not meeting evaluation level  
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 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT WO HUSKE LOCK NR TAR HEEL  
**Station #:** B8300000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.83487 **Longitude:** -78.82263 **Stream class:** C  
**Agency:** NCAMBNT **NC stream index:** 18-(26)  
**Time period:** 02/23/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	52	0	<4	1	1.9		2.1	6	7	8.1	10.1	11.2	15.3
	52	0	<5	1	1.9		2.1	6	7	8.1	10.1	11.2	15.3
pH (SU)	53	0	<6	8	15.1	92.2	5.4	5.8	6.2	6.5	6.8	6.9	7.3
	53	0	>9	0	0		5.4	5.8	6.2	6.5	6.8	6.9	7.3
Spec. conductance (umhos/cm at 25°C)	54	0	N/A				74	86	99	117	137	164	194
Water Temperature (°C)	54	0	>32	0	0		5.8	9.4	11	19	26	28.4	30.2

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT POWER LINES NR TOLARSVILLE  
**Station #:** B8302000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.78434 **Longitude:** -78.79825 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-(26)

**Time period:** 03/08/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		5.1	6.1	6.6	7.6	9	10.7	13.2
	83	0	<5	0	0		5.1	6.1	6.6	7.6	9	10.7	13.2
pH (SU)	83	0	<6	1	1.2		4.6	6.5	6.7	6.8	7	7.2	7.6
	83	0	>9	0	0		4.6	6.5	6.7	6.8	7	7.2	7.6
Spec. conductance (umhos/cm at 25°C)	83	1	N/A				64	97	108	126	140	173	232
Water Temperature (°C)	83	0	>32	0	0		6.5	8.3	15	23.1	27.1	29.1	30.6
<b>Other</b>													
TSS (mg/L)	58	1	N/A				1	4	6	9	14.2	27.1	76
Turbidity (NTU)	58	0	>50	1	1.7		2.9	5.3	7.1	9	12.4	25.9	77.4
<b>Nutrients (mg/L)</b>													
NH3 as N	58	9	N/A				0.02	0.02	0.04	0.06	0.09	0.15	0.29
NO2 + NO3 as N	58	0	N/A				0.26	0.54	0.62	0.73	0.85	1.08	1.53
TKN as N	58	0	N/A				0.2	0.34	0.48	0.6	0.76	0.9	5.3
Total Phosphorus	58	0	N/A				0.02	0.08	0.1	0.13	0.17	0.24	0.46

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
58	31	3	5	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT SR 1316 AT TAR HEEL  
**Station #:** B8305000  
**Latitude:** 34.74477      **Longitude:** -78.78563  
**Agency:** MCFRBA

**Hydrologic Unit Code:** 03030005  
**Stream class:** C  
**NC stream index:** 18-(26)

**Time period:** 03/08/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		5.3	6	6.8	7.5	9.1	10.6	13.1
	83	0	<5	0	0		5.3	6	6.8	7.5	9.1	10.6	13.1
pH (SU)	83	0	<6	2	2.4		5.9	6.4	6.6	6.8	7.1	7.2	8.5
	83	0	>9	0	0		5.9	6.4	6.6	6.8	7.1	7.2	8.5
Spec. conductance (umhos/cm at 25°C)	83	1	N/A				63	101	112	132	150	186	228
Water Temperature (°C)	83	0	>32	0	0		6.5	9.6	15	23	27.2	29.2	30.6
<b>Other</b>													
Chlorophyll a (ug/L)	56	6	>40	0	0		1	1	2	3	5	15	25
TSS (mg/L)	59	0	N/A				1	5	7	10	14	24	87
Turbidity (NTU)	59	0	>50	1	1.7		3.8	5.8	6.9	9.4	11.6	22.9	70.2
<b>Nutrients (mg/L)</b>													
NH3 as N	59	7	N/A				0.02	0.02	0.03	0.06	0.09	0.13	0.27
NO2 + NO3 as N	59	0	N/A				0.36	0.56	0.71	0.97	1.23	1.52	2.56
TKN as N	59	2	N/A				0.2	0.35	0.48	0.6	0.78	0.89	3.1
Total Phosphorus	59	1	N/A				0.02	0.1	0.12	0.17	0.3	0.37	0.54
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
58	29	2	3										

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT SR 1316 AT TAR HEEL  
**Station #:** B8305000  
**Latitude:** 34.74477      **Longitude:** -78.78563  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030005  
**Stream class:** C  
**NC stream index:** 18-(26)

**Time period:** 02/23/2004 to 12/06/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	31	0	<4	0	0		5.2	5.7	6.3	8	9.8	10.9	14.9
	31	0	<5	0	0		5.2	5.7	6.3	8	9.8	10.9	14.9
pH (SU)	30	0	<6	2	6.7		5.4	6	6.2	6.6	6.8	7.2	7.3
	30	0	>9	0	0		5.4	6	6.2	6.6	6.8	7.2	7.3
Spec. conductance (umhos/cm at 25°C)	31	0	N/A				66	88	98	114	145	167	194
Water Temperature (°C)	31	0	>32	0	0		5.9	9.1	11.4	18.1	24.6	27.5	29.6
<b>Other</b>													
TSS (mg/L)	11	0	N/A				7	7.2	8.8	14	22	26.4	27
Turbidity (NTU)	31	0	>50	1	3.2		1.9	6.5	9.3	14	21	35.4	70
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	11	0	N/A				230	252	360	550	670	1750	2000
Arsenic, total (As)	11	11	>10	0	0		5	5	5	5	5	9	10
Cadmium, total (Cd)	11	11	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	11	11	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	11	1	>7	0	0		2	2	2	3	4	4	5
Iron, total (Fe)	11	0	>1000	4	36.4	99.7	370	398	650	870	1100	2160	2400
Lead, total (Pb)	11	11	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	11	11	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	11	11	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	11	8	>50	0	0		10	10	10	10	10	14	14

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
31	94	6	19

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT RM 80 NR RUSKIN  
**Station #:** B8306000  
**Latitude:** 34.68308      **Longitude:** -78.68465  
**Agency:** MCFRBA

**Hydrologic Unit Code:** 03030005  
**Stream class:** C  
**NC stream index:** 18-(26)

**Time period:** 03/08/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		4.8	5.9	6.4	7.1	9.1	10.6	12.5
	83	0	<5	1	1.2		4.8	5.9	6.4	7.1	9.1	10.6	12.5
pH (SU)	83	0	<6	1	1.2		5.8	6.4	6.7	6.9	7.1	7.3	8.9
	83	0	>9	0	0		5.8	6.4	6.7	6.9	7.1	7.3	8.9
Spec. conductance (umhos/cm at 25°C)	83	0	N/A				64	98	114	131	151	185	234
Water Temperature (°C)	83	0	>32	0	0		6.3	9.4	15	23	27.7	28.9	30.5
<b>Other</b>													
TSS (mg/L)	58	1	N/A				1	5	7	9	13.2	25.9	70
Turbidity (NTU)	58	0	>50	1	1.7		3.1	6.9	7.9	9.2	13.2	31	62.5
<b>Nutrients (mg/L)</b>													
NH3 as N	58	8	N/A				0.02	0.02	0.04	0.06	0.09	0.11	0.27
NO2 + NO3 as N	58	0	N/A				0.38	0.53	0.79	0.94	1.18	1.51	2.28
TKN as N	58	2	N/A				0.2	0.36	0.5	0.6	0.7	0.9	1.01
Total Phosphorus	58	0	N/A				0.02	0.1	0.13	0.19	0.26	0.34	0.55

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
58	31	3	5	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HARRISON CRK AT SR 1320 AT BURNEY  
**Station #:** B8315000  
**Latitude:** 34.73155      **Longitude:** -78.71616  
**Agency:** MCFRBA

**Hydrologic Unit Code:** 03030005  
**Stream class:** C  
**NC stream index:** 18-(42)

**Time period:** 03/08/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		4.1	5.8	6.7	7.3	8.6	10.8	11.6
	58	0	<5	2	3.4		4.1	5.8	6.7	7.3	8.6	10.8	11.6
pH (SU)	58	0	<6	56	96.6	100	2.8	3.7	4	4.2	4.7	5.8	6.3
	58	0	>9	0	0		2.8	3.7	4	4.2	4.7	5.8	6.3
Spec. conductance (umhos/cm at 25°C)	58	3	N/A				53	58	63	68	78	93	120
Water Temperature (°C)	58	0	>32	0	0		5.1	7.1	10.6	17.4	21.7	24	25.4
<b>Other</b>													
TSS (mg/L)	58	7	N/A				1	1	2	3	4.2	7	19
Turbidity (NTU)	58	0	>50	0	0		1.4	1.9	2.2	3	3.9	6.4	36
<b>Nutrients (mg/L)</b>													
NH3 as N	58	15	N/A				0.02	0.02	0.02	0.04	0.08	0.15	0.24
NO2 + NO3 as N	58	1	N/A				0.02	0.06	0.14	0.24	0.45	0.83	1.48
TKN as N	58	0	N/A				0.26	0.46	0.68	0.88	1.08	1.5	2.8
Total Phosphorus	58	2	N/A				0.01	0.03	0.05	0.07	0.12	0.18	0.43

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
58	110	5	9	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT US 701 AT ELIZABETHTOWN  
**Station #:** B8320000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.63239 **Longitude:** -78.60286 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-(26)  
**Time period:** 03/08/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		4.3	5.7	6.5	7.6	8.8	10.8	13.9
	83	0	<5	2	2.4		4.3	5.7	6.5	7.6	8.8	10.8	13.9
pH (SU)	83	0	<6	1	1.2		5.9	6.3	6.6	6.8	7	7.1	9
	83	0	>9	0	0		5.9	6.3	6.6	6.8	7	7.1	9
Spec. conductance (umhos/cm at 25°C)	83	0	N/A				62	98	111	132	150	183	232
Water Temperature (°C)	83	0	>32	0	0		6.4	9.3	15	22.8	27.6	29.2	31.3
<b>Other</b>													
TSS (mg/L)	58	0	N/A				2	4	6.8	9.5	13	21.3	58
Turbidity (NTU)	58	0	>50	2	3.4		4	6	7.5	9.4	13.1	25.2	75.8
<b>Nutrients (mg/L)</b>													
NH3 as N	58	11	N/A				0.02	0.02	0.03	0.05	0.08	0.13	0.32
NO2 + NO3 as N	58	0	N/A				0.36	0.52	0.8	0.94	1.18	1.46	2.1
TKN as N	58	1	N/A				0.2	0.39	0.49	0.62	0.78	0.95	2.5
Total Phosphorus	58	0	N/A				0.02	0.1	0.13	0.19	0.25	0.35	0.65

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
58	30	2	3	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** TURNBULL CRK AT SR 1509 NR JOHNSONTOWN  
**Station #:** B8321000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.70839 **Longitude:** -78.60078 **Stream class:** C  
**Agency:** NCAMBNT **NC stream index:** 18-46  
**Time period:** 02/23/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	53	0	<4	6	11.3	72.3	0	2.3	4.8	6.3	7.6	8.9	12.8
	53	0	<5	16	30.2	100	0	2.3	4.8	6.3	7.6	8.9	12.8
pH (SU)	54	0	<6	54	100	100	3	3.2	3.5	3.9	4.2	4.6	4.9
	54	0	>9	0	0		3	3.2	3.5	3.9	4.2	4.6	4.9
Spec. conductance (umhos/cm at 25°C)	55	0	N/A				33	46	54	60	69	91	206
Water Temperature (°C)	55	0	>32	0	0		4.8	8.1	10.3	17	21.5	23.6	30.2
<b>Other</b>													
TSS (mg/L)	19	13	N/A				2.5	2.5	3	5	6.2	6.2	12
Turbidity (NTU)	55	1	>50	0	0		1	1.6	2.4	3.5	4.6	6.3	13
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				580	607	708	925	972	1067	1100
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	9	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1.3	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	14	25	25	25	25	25
Copper, total (Cu)	12	12	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	12	0	>1000	4	33.3	99.6	330	351	522	685	1275	1370	1400
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	11	11	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	11	>50	0	0		10	10	10	10	10	10	10

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
55	67	4	7

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV ABOVE LOCK AND DAM 2  
**Station #:** B8339000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.62762 **Longitude:** -78.57965 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-(26)

**Time period:** 03/08/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		4.9	5.5	6.1	7.3	8.9	10.9	15.7
	83	0	<5	1	1.2		4.9	5.5	6.1	7.3	8.9	10.9	15.7
pH (SU)	83	0	<6	1	1.2		5.8	6.4	6.6	6.8	7	7.2	8.6
	83	0	>9	0	0		5.8	6.4	6.6	6.8	7	7.2	8.6
Spec. conductance (umhos/cm at 25°C)	83	0	N/A				62	98	113	131	149	180	233
Water Temperature (°C)	83	0	>32	0	0		6.4	9.2	15	22.6	27.8	29.1	30.4
<b>Other</b>													
Chlorophyll a (ug/L)	56	5	>40	0	0		1	1	2	3	5	12	38
TSS (mg/L)	59	1	N/A				1	6	7	9	14	22	97
Turbidity (NTU)	59	0	>50	1	1.7		4.3	5.4	7.5	9.8	14.6	20.9	74.4
<b>Nutrients (mg/L)</b>													
NH3 as N	59	11	N/A				0.02	0.02	0.03	0.06	0.08	0.13	0.32
NO2 + NO3 as N	59	0	N/A				0.37	0.53	0.77	0.92	1.17	1.42	2.13
TKN as N	59	1	N/A				0.2	0.39	0.5	0.67	0.76	0.9	1.3
Total Phosphorus	59	0	N/A				0.02	0.1	0.13	0.18	0.25	0.34	0.56
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
58	28	2	3										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT LOCK 2 NR ELIZABETHTOWN  
**Station #:** B8340000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.62636 **Longitude:** -78.57678 **Stream class:** C  
**Agency:** NCAMBNT **NC stream index:** 18-(26)  
**Time period:** 02/23/2004 to 12/01/2008

Field	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
D.O. (mg/L)	52	0	<4	0	0		5.1	5.9	6.4	7.9	9.7	11	14.9
	52	0	<5	0	0		5.1	5.9	6.4	7.9	9.7	11	14.9
pH (SU)	53	0	<6	5	9.4		4.5	5.9	6.3	6.5	6.8	6.9	7.3
	53	0	>9	0	0		4.5	5.9	6.3	6.5	6.8	6.9	7.3
Spec. conductance (umhos/cm at 25°C)	54	0	N/A				52	90	103	121	153	178	226
Water Temperature (°C)	54	0	>32	0	0		5.7	9.3	11.6	19.3	26.3	28.9	30.3

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BROWNS CRK AT NC 87 NR ELIZABETHTOWN  
**Station #:** B8340050 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.61403 **Longitude:** -78.58475 **Stream class:** C  
**Agency:** LCFRP **NC stream index:** 18-45

**Time period:** 01/08/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	0	0		5.6	6.9	7.5	8.6	10.1	11.7	12.8
	60	0	<5	0	0		5.6	6.9	7.5	8.6	10.1	11.7	12.8
pH (SU)	60	0	<6	3	5		5.8	6.2	6.4	6.7	6.9	7.1	7.1
	60	0	>9	0	0		5.8	6.2	6.4	6.7	6.9	7.1	7.1
Spec. conductance (umhos/cm at 25°C)	60	9	N/A				78	98	100	110	124	142	160
Water Temperature (°C)	60	0	>32	0	0		4.2	8.7	12.4	18.6	23.3	25.5	27.4
<b>Other</b>													
TSS (mg/L)	60	10	N/A				1	2	2	3	7	13.9	25
<b>Nutrients (mg/L)</b>													
NH3 as N	60	9	N/A				0.01	0.01	0.02	0.03	0.04	0.12	0.64
NO2 + NO3 as N	60	3	N/A				0.01	0.03	0.06	0.15	0.28	0.39	1.47
TKN as N	60	0	N/A				0.2	0.34	0.46	0.6	0.95	1.4	2.2
Total Phosphorus	60	1	N/A				0.02	0.04	0.06	0.08	0.11	0.16	0.4

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	119	11	18	

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** TURNBULL CRK AT US 701 NC 53 AND NC 41 NR ELIZABETHTOWN  
**Station #:** B8340100 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.64720 **Longitude:** -78.55650 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-46

**Time period:** 03/08/2004 to 12/08/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	58	0	<4	0	0		4.5	5.5	6.2	7	8.2	10.3	11.7
	58	0	<5	1	1.7		4.5	5.5	6.2	7	8.2	10.3	11.7
pH (SU)	58	0	<6	55	94.8	100	3	3.5	3.6	4	4.2	5.5	6.8
	58	0	>9	0	0		3	3.5	3.6	4	4.2	5.5	6.8
Spec. conductance (umhos/cm at 25°C)	58	11	N/A				47	47	51	58	65	100	146
Water Temperature (°C)	58	0	>32	0	0		6.1	7.1	11.7	17.9	22.1	24.7	26.7
<b>Other</b>													
TSS (mg/L)	58	13	N/A				1	1	1	2	4	6	12
Turbidity (NTU)	58	0	>50	0	0		1	1	1.4	2	3	4.8	21
<b>Nutrients (mg/L)</b>													
NH3 as N	58	18	N/A				0.02	0.02	0.02	0.03	0.05	0.11	0.21
NO2 + NO3 as N	58	7	N/A				0.02	0.02	0.04	0.06	0.1	0.15	0.21
TKN as N	58	0	N/A				0.2	0.37	0.5	0.68	0.81	1.12	2.01
Total Phosphorus	58	7	N/A				0.01	0.02	0.03	0.05	0.08	0.12	0.42

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
58	31	0	0	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT RM 70 NR ELIZABETHTOWN  
**Station #:** B8340130 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.62458 **Longitude:** -78.55048 **Stream class:** C  
**Agency:** MCFRBA **NC stream index:** 18-(28)

**Time period:** 03/08/2004 to 12/08/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		4.6	6	6.9	7.5	8.6	10.4	12.7
	83	0	<5	1	1.2		4.6	6	6.9	7.5	8.6	10.4	12.7
pH (SU)	83	0	<6	4	4.8		5.6	6.2	6.4	6.8	7	7.2	7.4
	83	0	>9	0	0		5.6	6.2	6.4	6.8	7	7.2	7.4
Spec. conductance (umhos/cm at 25°C)	83	1	N/A				62	93	109	129	145	179	235
Water Temperature (°C)	82	0	>32	0	0		5.4	9.4	15.2	22.8	27.8	29	30.4
<b>Other</b>													
TSS (mg/L)	58	2	N/A				1	6	8	11.3	18.1	35	128
Turbidity (NTU)	58	0	>50	2	3.4		3.8	6.8	7.8	9.8	15	28.5	93.9
<b>Nutrients (mg/L)</b>													
NH3 as N	58	8	N/A				0.02	0.02	0.03	0.05	0.08	0.11	0.23
NO2 + NO3 as N	58	0	N/A				0.31	0.53	0.74	0.88	1.13	1.33	2.1
TKN as N	58	1	N/A				0.2	0.4	0.5	0.62	0.8	0.93	1.1
Total Phosphorus	58	0	N/A				0.02	0.11	0.14	0.18	0.23	0.32	0.41

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
58	24	3	5	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** HAMMOND CRK AT SR 1704 NR MOUNT OLIVE  
**Station #:** B8340200 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.56896 **Longitude:** -78.55225 **Stream class:** C  
**Agency:** LCFRP **NC stream index:** 18-50

**Time period:** 01/08/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<4	7	11.7	75.2	2.9	3.9	5.4	7.4	9.1	10.8	12.4
	60	0	<5	13	21.7	99.8	2.9	3.9	5.4	7.4	9.1	10.8	12.4
pH (SU)	60	0	<6	2	3.3		5.9	6.2	6.5	6.8	6.9	7	7.2
	60	0	>9	0	0		5.9	6.2	6.5	6.8	6.9	7	7.2
Spec. conductance (umhos/cm at 25°C)	60	4	N/A				84	100	122	150	178	223	251
Water Temperature (°C)	60	0	>32	0	0		4.5	7	10.8	17.5	22.2	23.9	25.8
<b>Other</b>													
TSS (mg/L)	60	11	N/A				1	2	3	3	5	10.9	18
<b>Nutrients (mg/L)</b>													
NH3 as N	60	15	N/A				0.01	0.01	0.02	0.04	0.06	0.14	0.51
NO2 + NO3 as N	60	9	N/A				0.01	0.02	0.03	0.06	0.15	0.33	0.41
TKN as N	60	0	N/A				0.2	0.4	0.5	0.7	0.9	1.12	1.9
Total Phosphorus	60	0	N/A				0.02	0.06	0.08	0.13	0.17	0.21	0.25

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	138	11	18	

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT RM 55 NR BLADEN SPRINGS  
**Station #:** B8340650 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.53518 **Longitude:** -78.43975 **Stream class:** WS-V  
**Agency:** MCFRBA **NC stream index:** 18-(49)

**Time period:** 03/08/2004 to 12/08/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		4.9	5.5	6.2	7	8.5	10.3	12.6
	83	0	<5	1	1.2		4.9	5.5	6.2	7	8.5	10.3	12.6
pH (SU)	83	0	<6	5	6		5.3	6.2	6.5	6.8	6.9	7	8.7
	83	0	>9	0	0		5.3	6.2	6.5	6.8	6.9	7	8.7
Spec. conductance (umhos/cm at 25°C)	83	2	N/A				55	92	103	125	143	169	230
Water Temperature (°C)	83	0	>32	0	0		5.2	9.1	15.3	22.9	27.8	29.6	30.7
<b>Other</b>													
TSS (mg/L)	58	0	N/A				2	3.9	6	9	15.3	24.2	81
Turbidity (NTU)	58	0	>50	3	5.2		3.6	5.5	7.2	8.9	15	26.7	61.6
<b>Nutrients (mg/L)</b>													
NH3 as N	58	8	N/A				0.02	0.02	0.03	0.05	0.09	0.12	0.18
NO2 + NO3 as N	58	1	>10	0	0		0.02	0.53	0.68	0.81	1.04	1.42	1.62
TKN as N	58	0	N/A				0.2	0.4	0.49	0.6	0.78	0.91	1.13
Total Phosphorus	58	1	N/A				0.01	0.1	0.12	0.16	0.2	0.23	0.34

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
58	20	2	3	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT SR 1730 ELWELL FERRY RD NR CARVERS  
**Station #:** B8348000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.47400 **Longitude:** -78.36900 **Stream class:** WS-IV  
**Agency:** MCFRBA **NC stream index:** 18-(53.5)

**Time period:** 03/08/2004 to 12/08/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		4.7	5.6	6.3	7.4	8.8	10.4	13.2
	83	0	<5	2	2.4		4.7	5.6	6.3	7.4	8.8	10.4	13.2
pH (SU)	83	0	<6	3	3.6		5.4	6.3	6.5	6.7	6.9	7.1	8.7
	83	0	>9	0	0		5.4	6.3	6.5	6.7	6.9	7.1	8.7
Spec. conductance (umhos/cm at 25°C)	83	2	N/A				54	90	106	122	144	165	224
Water Temperature (°C)	83	0	>32	0	0		5.6	8.9	15.2	23.1	28.1	29.7	30.7
<b>Other</b>													
TSS (mg/L)	57	1	N/A				1	4	6	9	12	23.6	140
Turbidity (NTU)	58	0	>50	1	1.7		3.5	6	7	9	13.8	27.8	102
<b>Nutrients (mg/L)</b>													
NH3 as N	58	15	N/A				0.02	0.02	0.02	0.04	0.07	0.11	0.17
NO2 + NO3 as N	58	1	>10	0	0		0.02	0.51	0.64	0.8	1.02	1.2	1.83
TKN as N	58	2	N/A				0.2	0.4	0.5	0.6	0.7	0.99	1.2
Total Phosphorus	58	0	N/A				0.02	0.1	0.12	0.15	0.18	0.24	0.46

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
58	16	2	3	

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV ABOVE LOCK AND DAM 1 NR EAST ARCADIA  
**Station #:** B8349000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.40693 **Longitude:** -78.29508 **Stream class:** WS-IV CA  
**Agency:** MCFRBA **NC stream index:** 18-(58.5)

**Time period:** 03/08/2004 to 12/08/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<4	0	0		4.5	5.4	6.2	7.3	8.6	10.7	12.3
	83	0	<5	5	6		4.5	5.4	6.2	7.3	8.6	10.7	12.3
pH (SU)	83	0	<6	3	3.6		5.3	6.2	6.4	6.7	7	7.2	9.1
	83	0	>9	1	1.2		5.3	6.2	6.4	6.7	7	7.2	9.1
Spec. conductance (umhos/cm at 25°C)	83	2	N/A				55	88	107	123	144	171	237
Water Temperature (°C)	83	0	>32	0	0		5.7	8.8	15.2	22.9	28.5	29.8	31.8
<b>Other</b>													
Chlorophyll a (ug/L)	55	4	>40	1	1.8		1	1	2	4	9	16	41
TSS (mg/L)	59	1	N/A				1	5	7	8	11	22	137
Turbidity (NTU)	59	0	>50	2	3.4		3.8	6.1	7	8.8	11.1	22.4	60.6
<b>Nutrients (mg/L)</b>													
NH3 as N	59	20	N/A				0.02	0.02	0.02	0.05	0.09	0.11	0.18
NO2 + NO3 as N	59	1	>10	0	0		0.02	0.49	0.62	0.78	0.97	1.12	2.5
TKN as N	59	0	N/A				0.2	0.35	0.5	0.6	0.82	0.99	1.4
Total Phosphorus	59	0	N/A				0.02	0.09	0.11	0.14	0.18	0.21	0.51
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	21	0	N/A				161	176	222	281	450	948	1440
Arsenic, total (As)	21	21	>10	0	0		5	6	10	10	10	10	10
Cadmium, total (Cd)	21	21	>2	0	0		0.2	0.5	0.5	0.5	0.5	0.5	0.5
Chromium, total (Cr)	21	21	>50	0	0		5	5	5	5	5	9	10
Copper, total (Cu)	21	9	>7	0	0		2	2	2	2	4	5	6
Iron, total (Fe)	21	0	>1000	6	28.6	99.7	412	565	584	716	1130	1590	1820
Lead, total (Pb)	21	3	>25	0	0		0	0	1	1	1	2	2
Manganese, total (Mn)	21	0	>200	0	0		8	20	47	71	102	126	200
Mercury, total (Hg)	21	0	>0.012	0	0		0.001	0.002	0.002	0.003	0.005	0.006	0.007
Nickel, total (Ni)	21	2	>25	0	0		1	1	1	1	1	4	5
Zinc, total (Zn)	21	14	>50	0	0		10	10	10	10	17	22	24

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
58	14	1	2

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT LOCK 1 NR KELLY  
**Station #:** B8350000  
**Latitude:** 34.40376      **Longitude:** -78.29316  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030005  
**Stream class:** WS-IV Sw  
**NC stream index:** 18-(59)

**Time period:** 02/04/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	51	0	N/A				6.1	6.4	7	7.8	10	10.6	12.8
pH (SU)	52	0	<4.3	0	0		5.5	6.1	6.6	6.7	6.9	7.3	7.7
	52	0	>9	0	0		5.5	6.1	6.6	6.7	6.9	7.3	7.7
Salinity (ppt)	51	0	N/A				0	0	0.02	0.04	0.06	0.1	0.1
Spec. conductance (umhos/cm at 25°C)	50	0	N/A				43	78	100	112	128	144	221
Water Temperature (°C)	53	0	>32	0	0		5	8.9	12.4	19.6	26.5	29	29.8
<b>Other</b>													
TSS (mg/L)	20	1	N/A				2.5	4.4	6.8	11.5	24.8	41.7	52
Turbidity (NTU)	55	0	>50	2	3.6		3.1	8.2	9.8	12	18	35.4	80
<b>Nutrients (mg/L)</b>													
NH3 as N	55	19	N/A				0.02	0.02	0.02	0.04	0.07	0.1	0.13
NO2 + NO3 as N	55	0	>10	0	0		0.23	0.47	0.61	0.81	0.95	1.2	2.3
TKN as N	55	0	N/A				0.39	0.46	0.52	0.63	0.74	0.8	1
Total Phosphorus	55	0	N/A				0.1	0.12	0.13	0.16	0.19	0.24	0.39
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				210	225	310	435	890	1350	1600
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	4	>7	0	0		2	2	2	2	2	4	4
Iron, total (Fe)	14	0	>1000	5	35.7	99.9	590	635	688	970	1250	1900	2200
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	13	0	>200	1	7.7		46	53	69	93	130	194	210
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	10	>50	0	0		10	10	10	10	12	15	15
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
55	18	0	0										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NC 11 NR EAST ARCADIA  
**Station #:** B8360000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.39687 **Longitude:** -78.26752 **Stream class:** WS-IV Sw  
**Agency:** LCFRP **NC stream index:** 18-(59)

**Time period:** 01/07/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	133	0	N/A				4.5	6.2	6.6	7.3	8.6	10.6	13.6
pH (SU)	133	0	<4.3	0	0		5.1	6.2	6.5	6.7	6.9	7.1	8
	133	0	>9	0	0		5.1	6.2	6.5	6.7	6.9	7.1	8
Spec. conductance (umhos/cm at 25°C)	133	12	N/A				55	100	110	125	144	176	288
Water Temperature (°C)	133	0	>32	0	0		5	11.6	20.2	25.9	28.9	30.1	31.6
<b>Other</b>													
TSS (mg/L)	60	0	N/A				4	5.1	7	10	14	25.8	97
Turbidity (NTU)	59	0	>50	3	5.1		5	6	9.1	12	17.2	27.7	76.8
<b>Nutrients (mg/L)</b>													
NH3 as N	60	12	N/A				0.02	0.02	0.02	0.04	0.06	0.1	0.13
NO2 + NO3 as N	60	2	>10	0	0		0.01	0.25	0.42	0.62	0.77	0.9	1.84
TKN as N	60	0	N/A				0.2	0.41	0.53	0.7	0.93	1.2	3.11
Total Phosphorus	60	0	N/A				0.08	0.1	0.11	0.15	0.16	0.22	0.61
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	1	N/A				50	88	281	427	664	1492	3320
Arsenic, total (As)	20	19	>10	0	0		1	3	10	10	10	10	10
Cadmium, total (Cd)	20	20	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	20	20	>50	0	0		5	7	25	25	25	25	25
Copper, total (Cu)	20	12	>7	2	10	67.7	2	2	2	2	3	8	21
Iron, total (Fe)	20	0	>1000	7	35	100	416	439	701	787	1130	1297	2620
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	19	>0.012	1	5		0.2	0.2	0.2	0.2	0.2	0.2	0.3
Nickel, total (Ni)	20	20	>25	0	0		5	6	10	10	10	10	10
Zinc, total (Zn)	20	18	>50	0	0		5	8	10	10	10	10	15

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	20	1	2

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NC 11 NR EAST ARCADIA  
**Station #:** B8360000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.39687 **Longitude:** -78.26752 **Stream class:** WS-IV Sw  
**Agency:** NCAMBNT **NC stream index:** 18-(59)

**Time period:** 02/04/2004 to 12/18/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	32	0	N/A				5.8	6.3	6.7	7.9	10.4	11.2	12.5
pH (SU)	32	0	<4.3	0	0		5.9	6.3	6.6	6.8	7	7.2	7.7
	32	0	>9	0	0		5.9	6.3	6.6	6.8	7	7.2	7.7
Salinity (ppt)	32	0	N/A				0	0	0	0.04	0.06	0.1	0.1
Spec. conductance (umhos/cm at 25°C)	32	0	N/A				43	71	96	112	123	142	169
Water Temperature (°C)	32	0	>32	0	0		5	8.2	11.2	17.6	25	28.5	31.3
<b>Other</b>													
TSS (mg/L)	12	1	N/A				5	5	6.2	9.5	26.5	41.2	46
Turbidity (NTU)	33	0	>50	1	3		4.6	7.2	9.3	12	21.5	34	65
<b>Nutrients (mg/L)</b>													
NH3 as N	33	14	N/A				0.02	0.02	0.02	0.03	0.06	0.12	0.15
NO2 + NO3 as N	33	0	>10	0	0		0.32	0.44	0.58	0.78	0.92	0.98	1.3
TKN as N	33	0	N/A				0.41	0.45	0.51	0.61	0.71	0.77	0.86
Total Phosphorus	33	0	N/A				0.11	0.12	0.13	0.15	0.18	0.2	0.29
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				180	201	310	445	998	1410	1500
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	9	10	10
Cadmium, total (Cd)	12	12	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	12	4	>7	0	0		2	2	2	2	3	4	4
Iron, total (Fe)	12	0	>1000	3	25	97.4	620	632	692	940	1295	2010	2100
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Manganese, total (Mn)	11	0	>200	0	0		45	45	67	92	110	170	180
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>25	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	10	>50	0	0		10	10	10	10	10	12	12

**Fecal Coliform Screening(#/100mL)**

# results: 33      Geomean: 25      # > 400: 0      % > 400: 0      %Conf: 0

**Key:**

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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LIVINGSTON CRK AT WRIGHT CORPORATION WALKWAY NR ACME  
**Station #:** B8441000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.33527 **Longitude:** -78.20111 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-64

**Time period:** 01/12/2005 to 12/11/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	46	0	N/A				1.5	2.5	3.4	5.1	8	9.8	11.2
pH (SU)	46	0	<4.3	0	0		5.6	6	6.3	6.6	6.9	7.1	7.6
	46	0	>9	0	0		5.6	6	6.3	6.6	6.9	7.1	7.6
Spec. conductance (umhos/cm at 25°C)	46	10	N/A				65	100	100	122	164	238	259
Water Temperature (°C)	46	0	>32	0	0		5.3	9.3	12.1	18.4	25.3	27.7	28.6
<b>Other</b>													
TSS (mg/L)	46	11	N/A				1	2	2	3	4	5.3	29
<b>Nutrients (mg/L)</b>													
NH3 as N	46	3	N/A				0.02	0.05	0.09	0.2	0.39	1.11	1.81
NO2 + NO3 as N	46	3	N/A				0.01	0.04	0.08	0.18	0.45	1.01	3.64
TKN as N	46	0	N/A				0.2	0.51	0.69	0.98	1.22	1.63	3.7
Total Phosphorus	46	5	N/A				0.01	0.02	0.03	0.04	0.07	0.08	0.15
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				107	112	169	349	408	855	975
Arsenic, total (As)	13	13	>10	0	0		1	1	10	10	10	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	13	13	>50	0	0		5	5	25	25	25	25	25
Copper, total (Cu)	13	13	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	13	0	>1000	4	30.8	99.4	188	238	468	712	1126	1299	1390
Lead, total (Pb)	13	13	>25	0	0		3	3	10	10	10	10	10
Mercury, total (Hg)	13	13	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>88	0	0		5	5	10	10	10	10	10
Zinc, total (Zn)	13	11	>50	0	0		5	6	10	10	10	14	17

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
46	75	4	9

**Key:**

# result: number of observations  
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 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LIVINGSTON CRK AT WRIGHT CORPORATION WALKWAY NR ACME  
**Station #:** B8441000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.33527 **Longitude:** -78.20111 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-64

**Time period:** 01/13/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	57	0	N/A				0.2	2.1	3.2	4.7	7.6	9.1	11.4
pH (SU)	57	0	<4.3	0	0		5.3	5.8	6.1	6.4	6.5	6.7	6.9
	57	0	>9	0	0		5.3	5.8	6.1	6.4	6.5	6.7	6.9
Salinity (ppt)	57	0	N/A				0	0	0.02	0.04	0.07	0.1	0.2
Spec. conductance (umhos/cm at 25°C)	57	0	N/A				41	64	90	112	154	206	246
Water Temperature (°C)	57	0	>32	0	0		3	7.5	11.7	17.5	24.8	26.4	28.1
<b>Other</b>													
TSS (mg/L)	20	10	N/A				2.5	2.5	2.6	5.4	6.2	8.9	12
Turbidity (NTU)	57	0	>50	0	0		2.1	2.7	3.4	4.5	5.8	7.8	16
<b>Nutrients (mg/L)</b>													
NH3 as N	57	1	N/A				0.02	0.04	0.1	0.17	0.31	0.59	1.5
NO2 + NO3 as N	57	5	N/A				0.02	0.03	0.07	0.17	0.38	0.93	1.3
TKN as N	57	0	N/A				0.32	0.39	0.5	0.65	1	1.5	3.8
Total Phosphorus	57	1	N/A				0.02	0.02	0.03	0.05	0.08	0.11	0.23
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	13	0	N/A				120	128	205	280	325	532	600
Arsenic, total (As)	13	13	>10	0	0		5	5	5	5	8	10	10
Cadmium, total (Cd)	13	13	>2	0	0		1	1.4	2	2	2	2	2
Chromium, total (Cr)	13	12	>50	0	0		10	16	25	25	25	25	25
Copper, total (Cu)	13	9	>7	0	0		2	2	2	2	2	3	3
Iron, total (Fe)	13	0	>1000	6	46.2	100	380	396	470	930	1400	1560	1600
Lead, total (Pb)	13	13	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	13	13	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	13	9	>50	0	0		10	10	10	10	12	14	14
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
57	88	3	5										

**Key:**

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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LIVINGSTON CRK AT MOUTH NR RIEGELWOOD  
**Station #:** B8445000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.35161 **Longitude:** -78.20107 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-64

**Time period:** 01/07/2004 to 11/02/2005

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	14	0	N/A				2.9	3.9	6	7.3	9.8	12.2	13.4
pH (SU)	14	0	<4.3	0	0		5.7	6	6.4	6.6	6.7	7.2	7.3
	14	0	>9	0	0		5.7	6	6.4	6.6	6.7	7.2	7.3
Spec. conductance (umhos/cm at 25°C)	14	2	N/A				99	100	110	132	227	320	353
Water Temperature (°C)	14	0	>32	0	0		4.9	7.3	12.6	20.6	24.7	29.3	29.9
<b>Other</b>													
TSS (mg/L)	14	0	N/A				1	2	4.8	6.5	8.5	21.5	32
<b>Nutrients (mg/L)</b>													
NH3 as N	14	5	N/A				0.02	0.02	0.02	0.05	0.11	0.14	0.14
NO2 + NO3 as N	14	2	N/A				0.01	0.01	0.03	0.6	0.76	0.97	1
TKN as N	14	0	N/A				0.49	0.5	0.55	0.69	0.83	0.97	0.99
Total Phosphorus	14	1	N/A				0.02	0.03	0.08	0.12	0.16	0.2	0.22
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	7	0	N/A				271	271	398	503	787	794	794
Arsenic, total (As)	7	7	>10	0	0		10	10	10	10	10	10	10
Cadmium, total (Cd)	7	7	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	7	7	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	7	4	>7	0	0		2	2	2	2	3	4	4
Iron, total (Fe)	7	0	>1000	4	57.1		683	683	983	1030	1240	1400	1400
Lead, total (Pb)	7	7	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	7	7	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	7	7	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	7	5	>50	0	0		10	10	10	10	10	18	18

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
14	22	0	0

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NEILS EDDY LANDING NR ACME  
**Station #:** B8450000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.35547 **Longitude:** -78.17942 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-(63)

**Time period:** 01/07/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	134	0	N/A				3.3	5.2	5.9	6.4	7.8	10.1	13.2
pH (SU)	134	0	<4.3	0	0		5.6	6.5	6.7	6.8	7	7.2	7.6
	134	0	>9	0	0		5.6	6.5	6.7	6.8	7	7.2	7.6
Spec. conductance (umhos/cm at 25°C)	134	7	N/A				59	104	124	152	229	316	628
Water Temperature (°C)	134	0	>32	0	0		5.2	11.8	20.4	25.7	28.9	30.1	31.4
<b>Other</b>													
TSS (mg/L)	60	0	N/A				3	5	7	10	14.8	24.9	87
<b>Nutrients (mg/L)</b>													
NH3 as N	60	12	N/A				0.02	0.02	0.03	0.06	0.11	0.24	0.35
NO2 + NO3 as N	60	1	N/A				0.01	0.22	0.42	0.58	0.79	1	2.25
TKN as N	60	0	N/A				0.2	0.44	0.58	0.76	1.1	1.4	2.5
Total Phosphorus	60	0	N/A				0.08	0.1	0.11	0.14	0.18	0.23	0.35

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	30	2	3

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NEILS EDDY LANDING NR ACME  
**Station #:** B8450000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.35547 **Longitude:** -78.17942 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-(63)  
**Time period:** 02/04/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	50	0	N/A				3.8	5.5	6	7.4	9.3	11.2	12
pH (SU)	51	0	<4.3	0	0		5.6	6.1	6.5	6.7	7	7.2	7.7
	51	0	>9	0	0		5.6	6.1	6.5	6.7	7	7.2	7.7
Salinity (ppt)	50	0	N/A				0	0.03	0.05	0.07	0.1	0.12	0.33
Spec. conductance (umhos/cm at 25°C)	49	0	N/A				47	91	116	143	212	257	651
Water Temperature (°C)	52	0	>32	0	0		5	9.3	13.2	20.4	27.2	29	30.1
<b>Other</b>													
TSS (mg/L)	20	1	N/A				5	5.3	7.3	11	20.5	49.3	60
Turbidity (NTU)	55	0	>50	2	3.6		5.2	6.8	8	12	19	33.2	85
<b>Nutrients (mg/L)</b>													
NH3 as N	1	0	N/A				0.06	0.06	0.06	0.06	0.06	0.06	0.06
NO2 + NO3 as N	1	0	N/A				0.89	0.89	0.89	0.89	0.89	0.89	0.89
TKN as N	1	0	N/A				0.79	0.79	0.79	0.79	0.79	0.79	0.79
Total Phosphorus	1	0	N/A				0.17	0.17	0.17	0.17	0.17	0.17	0.17
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				190	240	405	600	828	1400	1700
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	5	>7	0	0		2	2	2	2	3	4	5
Iron, total (Fe)	14	0	>1000	6	42.9	100	670	700	800	910	1325	1950	2300
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	9	>50	0	0		10	10	10	10	11	18	21
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	55	Geomean	21	# > 400:	0	% > 400:	0	%Conf:					

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT INTAKE NR HOOPER HILL  
**Station #:** B8465000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.33581 **Longitude:** -78.05436 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-(63)

**Time period:** 01/07/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	134	0	N/A				2.3	3.8	4.6	5.6	7.2	9.8	13.2
pH (SU)	134	0	<4.3	0	0		4.7	6.5	6.6	6.8	6.9	7.1	7.4
	134	0	>9	0	0		4.7	6.5	6.6	6.8	6.9	7.1	7.4
Spec. conductance (umhos/cm at 25°C)	134	3	N/A				68	118	143	178	228	313	567
Water Temperature (°C)	134	0	>32	0	0		5.3	11.9	20.8	25.8	28.8	29.8	31
<b>Other</b>													
TSS (mg/L)	60	1	N/A				2	5.1	7.2	10	15.2	23.8	61
<b>Nutrients (mg/L)</b>													
NH3 as N	60	12	N/A				0.02	0.02	0.02	0.07	0.1	0.14	0.24
NO2 + NO3 as N	60	1	N/A				0.01	0.13	0.32	0.48	0.7	0.88	1.25
TKN as N	60	0	N/A				0.3	0.5	0.65	0.79	1.02	1.63	2
Total Phosphorus	60	0	N/A				0.06	0.09	0.1	0.13	0.16	0.2	0.25
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	19	0	N/A				58	149	333	475	769	1180	1540
Arsenic, total (As)	19	19	>10	0	0		1	2	10	10	10	10	10
Cadmium, total (Cd)	19	19	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	19	19	>50	0	0		5	5	25	25	25	25	25
Copper, total (Cu)	19	13	>7	0	0		2	2	2	2	2	3	4
Iron, total (Fe)	19	0	>1000	6	31.6	99.8	549	623	694	893	1070	1740	2280
Lead, total (Pb)	19	19	>25	0	0		3	3	10	10	10	10	10
Mercury, total (Hg)	19	19	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	19	19	>88	0	0		5	5	10	10	10	10	10
Zinc, total (Zn)	19	14	>50	0	0		9	10	10	10	10	11	13

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
60	33	0	0

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** SOUTH RIV AT US 13 NR COOPER  
**Station #:** B8470000  
**Latitude:** 35.15600      **Longitude:** -78.64013  
**Agency:** LCFRP

**Hydrologic Unit Code:** 03030006  
**Stream class:** C Sw  
**NC stream index:** 18-68-12-(0.5)

**Time period:** 01/08/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				0.2	0.6	2	4.2	7.5	10.1	12.1
pH (SU)	60	0	<4.3	0	0		5.3	5.7	5.9	6.1	6.3	6.4	6.9
	60	0	>9	0	0		5.3	5.7	5.9	6.1	6.3	6.4	6.9
Spec. conductance (umhos/cm at 25°C)	60	30	N/A				58	76	100	100	126	164	408
Water Temperature (°C)	60	0	>32	0	0		2.8	7.1	10.2	18.1	23.2	25.2	27.9
<b>Other</b>													
TSS (mg/L)	60	14	N/A				1	1	2	3	8.8	16.9	25
<b>Nutrients (mg/L)</b>													
NH3 as N	60	12	N/A				0.01	0.01	0.02	0.03	0.06	0.14	0.45
NO2 + NO3 as N	60	23	N/A				0.01	0.01	0.02	0.03	0.06	0.11	0.59
TKN as N	60	0	N/A				0.2	0.4	0.56	0.89	1.25	1.63	2
Total Phosphorus	60	4	N/A				0.02	0.02	0.03	0.07	0.11	0.17	0.29
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	60												
<b>Geomean</b>		84											
<b># &gt; 400:</b>			7										
<b>% &gt; 400: %Conf:</b>				12									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LITTLE COHARIE CRK AT SR 1414 MINNIE HALL RD NR SALEMBURG  
**Station #:** B8490000 **Hydrologic Unit Code:** 03030006  
**Latitude:** 35.05553 **Longitude:** -78.53095 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-68-1-17

**Time period:** 02/16/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	53	0	N/A				0.5	1.1	1.8	4.2	7.4	9.5	11.1
pH (SU)	53	0	<4.3	0	0		5.1	5.4	5.7	6.1	6.3	6.7	7.3
	53	0	>9	0	0		5.1	5.4	5.7	6.1	6.3	6.7	7.3
Spec. conductance (umhos/cm at 25°C)	54	0	N/A				56	66	74	82	92	106	166
Water Temperature (°C)	55	0	>32	0	0		4.7	6.3	10.8	16.1	23.8	26.4	28.9
<b>Other</b>													
TSS (mg/L)	19	12	N/A				2.5	2.5	2.5	5	6.2	13	22
Turbidity (NTU)	55	15	>50	0	0		1	1	1	1.6	3.3	4.8	12
<b>Nutrients (mg/L)</b>													
NH3 as N	55	32	N/A				0.02	0.02	0.02	0.02	0.02	0.05	0.18
NO2 + NO3 as N	55	22	N/A				0.02	0.02	0.02	0.03	0.17	0.79	1.5
TKN as N	55	0	N/A				0.36	0.41	0.47	0.66	0.83	1.03	1.6
Total Phosphorus	55	0	N/A				0.02	0.02	0.03	0.05	0.09	0.14	0.25
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				89	89	93	110	175	225	240
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1.3	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	14	25	25	25	25	25
Copper, total (Cu)	12	12	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	12	0	>1000	5	41.7	99.9	210	249	352	525	2050	3740	4400
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	11	11	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	11	>50	0	0		10	10	10	10	10	11	12

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
54	56	1	2

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LITTLE COHARIE CRK AT SR 1240 NR ROSEBORO  
**Station #:** B8545000 **Hydrologic Unit Code:** 03030006  
**Latitude:** 34.92735 **Longitude:** -78.46568 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-68-1-17

**Time period:** 02/16/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	50	0	N/A				1.4	3.2	5	7.1	8.9	10.3	11.5
pH (SU)	50	0	<4.3	0	0		4.6	5.7	5.9	6.2	6.5	6.8	7.8
	50	0	>9	0	0		4.6	5.7	5.9	6.2	6.5	6.8	7.8
Spec. conductance (umhos/cm at 25°C)	51	0	N/A				56	69	75	83	91	119	153
Water Temperature (°C)	52	0	>32	0	0		6.2	8.1	12.4	18.3	25.1	28.3	29.9
<b>Other</b>													
TSS (mg/L)	19	12	N/A				2.5	2.5	2.5	4.5	6.2	9.5	12
Turbidity (NTU)	52	0	>50	0	0		1.2	1.4	1.7	2.7	3.5	4.3	7.3
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				160	166	182	215	238	418	460
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1.3	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	14	25	25	25	25	25
Copper, total (Cu)	12	12	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	12	0	>1000	5	41.7	99.9	270	297	438	685	1650	2830	3100
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	11	11	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	10	>50	0	0		10	10	10	10	10	13	14

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
51	56	0	0

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** GREAT COHARIE CRK AT SR 1311 NR CLINTON  
**Station #:** B8580000 **Hydrologic Unit Code:** 03030006  
**Latitude:** 35.02483 **Longitude:** -78.37170 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-68-1  
**Time period:** 02/16/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	53	0	N/A				0	0.1	0.6	2.9	6.8	8.9	11.8
pH (SU)	53	0	<4.3	0	0		5.2	5.4	5.7	6	6.2	6.5	7.2
	53	0	>9	0	0		5.2	5.4	5.7	6	6.2	6.5	7.2
Spec. conductance (umhos/cm at 25°C)	54	0	N/A				66	81	88	100	110	139	178
Water Temperature (°C)	55	0	>32	0	0		4.9	6.8	11.4	16.8	24.6	26.2	28.3
<b>Other</b>													
TSS (mg/L)	19	11	N/A				2.5	2.5	2.5	4	6.2	20	32
Turbidity (NTU)	55	13	>50	0	0		1	1	1	2.6	7.5	17.4	23
<b>Nutrients (mg/L)</b>													
NH3 as N	55	31	N/A				0.02	0.02	0.02	0.02	0.03	0.06	0.62
NO2 + NO3 as N	55	38	N/A				0.02	0.02	0.02	0.02	0.03	0.42	1.8
TKN as N	55	0	N/A				0.35	0.41	0.51	0.74	1.1	1.5	5.1
Total Phosphorus	55	2	N/A				0.02	0.02	0.03	0.05	0.12	0.2	1.4
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				67	68	83	99	120	293	320
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1.3	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	14	25	25	25	25	25
Copper, total (Cu)	12	11	>7	0	0		2	2	2	2	2	3	4
Iron, total (Fe)	12	0	>1000	5	41.7	99.9	190	226	365	735	2950	8080	8800
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	11	11	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	12	>50	0	0		10	10	10	10	10	10	10

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
54	115	7	13

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** GREAT COHARIE CRK AT SR 1214 NR BUTLER CROSSROADS  
**Station #:** B8604000 **Hydrologic Unit Code:** 03030006  
**Latitude:** 34.91824 **Longitude:** -78.38918 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-68-1

**Time period:** 01/08/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				1.5	3.7	4.4	6.1	8.1	10.1	11.3
pH (SU)	60	0	<4.3	0	0		5.6	6	6.2	6.5	6.6	6.9	7.2
	60	0	>9	0	0		5.6	6	6.2	6.5	6.6	6.9	7.2
Spec. conductance (umhos/cm at 25°C)	60	3	N/A				76	100	118	146	185	313	489
Water Temperature (°C)	60	0	>32	0	0		2.8	7.3	10.7	18.1	23.3	25.9	28.3
<b>Other</b>													
TSS (mg/L)	60	21	N/A				1	1	2	3	4	12	40
<b>Nutrients (mg/L)</b>													
NH3 as N	60	11	N/A				0.01	0.02	0.02	0.04	0.06	0.09	0.21
NO2 + NO3 as N	60	12	N/A				0.01	0.01	0.04	0.1	0.2	0.42	1.53
TKN as N	60	0	N/A				0.2	0.4	0.56	0.89	1.07	1.31	9.43
Total Phosphorus	60	1	N/A				0.02	0.08	0.15	0.2	0.35	0.75	1.72
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	1	N/A				30	38	72	106	175	252	353
Arsenic, total (As)	20	20	>10	0	0		1	3	10	10	10	10	10
Cadmium, total (Cd)	20	20	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	20	20	>50	0	0		5	7	25	25	25	25	25
Copper, total (Cu)	20	20	>7	0	0		0	2	2	2	2	2	2
Iron, total (Fe)	20	0	>1000	7	35	100	123	135	237	530	1710	3579	4440
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	19	>88	0	0		5	5	10	10	10	10	10
Zinc, total (Zn)	19	18	>50	0	0		5	9	10	10	10	10	10

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
60	43	1	2

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LITTLE COHARIE CRK AT SR 1207 NR INGOLD  
**Station #:** B8610001 **Hydrologic Unit Code:** 03030006  
**Latitude:** 34.83473 **Longitude:** -78.37087 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-68-1-17

**Time period:** 01/08/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				3.7	5.7	6.7	8.1	10.2	11.3	12.5
pH (SU)	60	0	<4.3	0	0		4.8	5.8	6.1	6.4	6.6	6.8	7
	60	0	>9	0	0		4.8	5.8	6.1	6.4	6.6	6.8	7
Spec. conductance (umhos/cm at 25°C)	60	35	N/A				61	79	92	100	100	110	171
Water Temperature (°C)	60	0	>32	0	0		3.7	6.9	10.8	17.7	23.2	25.5	27.3
<b>Other</b>													
TSS (mg/L)	60	15	N/A				1	1	2	3	3	5	22
<b>Nutrients (mg/L)</b>													
NH3 as N	60	11	N/A				0.01	0.01	0.02	0.03	0.05	0.07	0.21
NO2 + NO3 as N	60	4	N/A				0.01	0.03	0.08	0.21	0.43	0.74	0.93
TKN as N	60	0	N/A				0.2	0.43	0.59	0.8	0.98	1.26	1.8
Total Phosphorus	60	3	N/A				0.02	0.02	0.03	0.05	0.08	0.12	0.35
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	53	2	3										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
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**Location:** SIX RUNS CRK AT SR 1919 NR MOLTONVILLE  
**Station #:** B8679500 **Hydrologic Unit Code:** 03030006  
**Latitude:** 35.01492 **Longitude:** -78.22950 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-68-2-(0.3)  
**Time period:** 02/16/2004 to 01/18/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	20	0	N/A				0	0.2	0.4	4.6	7	10.5	11.3
pH (SU)	20	0	<4.3	0	0		5.7	5.9	6	6.2	6.5	6.9	7.2
	20	0	>9	0	0		5.7	5.9	6	6.2	6.5	6.9	7.2
Spec. conductance (umhos/cm at 25°C)	20	0	N/A				93	106	117	134	138	171	196
Water Temperature (°C)	20	0	>32	0	0		5.3	6	10.4	15	24.8	26.5	26.8
<b>Other</b>													
TSS (mg/L)	7	3	N/A				2.5	2.5	2.5	11	15	48	48
Turbidity (NTU)	20	4	>50	0	0		1	1	1.1	2	18.2	31.5	40
<b>Nutrients (mg/L)</b>													
NH3 as N	20	13	N/A				0.02	0.02	0.02	0.02	0.04	0.1	0.11
NO2 + NO3 as N	20	14	N/A				0.02	0.02	0.02	0.02	0.03	0.06	0.43
TKN as N	20	0	N/A				0.27	0.38	0.43	0.55	0.95	1.28	1.5
Total Phosphorus	20	0	N/A				0.03	0.04	0.04	0.06	0.31	0.6	0.69
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	7	3	N/A				50	50	50	52	60	82	82
Arsenic, total (As)	7	7	>10	0	0		5	5	5	5	10	10	10
Cadmium, total (Cd)	7	7	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	7	7	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	7	7	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	7	0	>1000	3	42.9		390	390	410	730	5900	13000	13000
Lead, total (Pb)	7	7	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	7	7	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	7	7	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	7	7	>50	0	0		10	10	10	10	10	10	10

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
19	85	2	11

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** SIX RUNS CRK AT SR 1960 NR TAYLORS BRIDGE  
**Station #:** B8725000 **Hydrologic Unit Code:** 03030006  
**Latitude:** 34.85200 **Longitude:** -78.24480 **Stream class:** C Sw ORW +  
**Agency:** NCAMBNT **NC stream index:** 18-68-2-(11.5)

**Time period:** 02/16/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	53	0	N/A				2.8	4.8	6	7.6	9.6	10.8	11.7
pH (SU)	53	0	<4.3	0	0		5.8	5.9	6.2	6.5	6.8	6.9	7.4
	53	0	>9	0	0		5.8	5.9	6.2	6.5	6.8	6.9	7.4
Spec. conductance (umhos/cm at 25°C)	54	0	N/A				75	95	110	127	140	148	183
Water Temperature (°C)	55	0	>32	0	0		6	7.5	12	17	24.4	27.4	29.8
<b>Other</b>													
TSS (mg/L)	19	9	N/A				2.5	2.5	5.2	6.2	8	16	25
Turbidity (NTU)	55	1	>50	0	0		1	2.6	3.4	4.5	6.3	17	22
<b>Nutrients (mg/L)</b>													
NH3 as N	35	2	N/A				0.02	0.02	0.04	0.06	0.08	0.12	0.19
NO2 + NO3 as N	35	0	N/A				0.08	0.17	0.4	0.69	0.87	1.22	1.8
TKN as N	35	0	N/A				0.48	0.53	0.66	0.77	0.89	1.04	1.4
Total Phosphorus	35	0	N/A				0.04	0.06	0.07	0.13	0.17	0.26	0.5
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				160	160	172	235	325	374	380
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1.3	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	14	25	25	25	25	25
Copper, total (Cu)	12	11	>7	0	0		2	2	2	2	2	4	5
Iron, total (Fe)	12	0	>1000	5	41.7	99.9	500	506	662	740	2625	5390	5900
Lead, total (Pb)	12	11	>25	1	8.3		10	10	10	10	10	59	80
Mercury, total (Hg)	11	11	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	11	>88	0	0		10	10	10	10	10	44	58
Zinc, total (Zn)	12	11	>50	1	8.3		10	10	10	10	10	605	860

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
53	168	8	15

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** SIX RUNS CRK AT SR 1003 NR INGOLD  
**Station #:** B8740000  
**Latitude:** 34.79327      **Longitude:** -78.31125  
**Agency:** LCFRP

**Hydrologic Unit Code:** 03030006  
**Stream class:** C Sw ORW+  
**NC stream index:** 18-68-2-(11.5)

**Time period:** 01/08/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				3.5	6	6.6	8	10.1	11.4	12
pH (SU)	60	0	<4.3	0	0		5.6	5.9	6.3	6.5	7	7.2	7.6
	60	0	>9	0	0		5.6	5.9	6.3	6.5	7	7.2	7.6
Spec. conductance (umhos/cm at 25°C)	60	3	N/A				26	100	112	122	131	148	169
Water Temperature (°C)	60	0	>32	0	0		4.8	7	11	17.7	23.3	25.4	27.4
<b>Other</b>													
TSS (mg/L)	60	8	N/A				2	2	2	3	5	8	30
<b>Nutrients (mg/L)</b>													
NH3 as N	60	11	N/A				0.01	0.02	0.02	0.04	0.06	0.12	0.7
NO2 + NO3 as N	60	0	N/A				0.03	0.08	0.27	0.5	0.8	0.98	1.19
TKN as N	60	0	N/A				0.1	0.3	0.56	0.75	0.99	1.66	2.1
Total Phosphorus	60	1	N/A				0.02	0.04	0.06	0.1	0.14	0.16	0.21
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	1	N/A				50	117	150	264	362	589	1680
Arsenic, total (As)	20	20	>10	0	0		1	3	10	10	10	10	10
Cadmium, total (Cd)	20	20	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	20	20	>50	0	0		5	7	25	25	25	25	25
Copper, total (Cu)	20	19	>7	0	0		0	2	2	2	2	2	2
Iron, total (Fe)	20	0	>1000	11	55	100	282	311	496	1035	1558	2061	3480
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	20	>88	0	0		5	6	10	10	10	10	10
Zinc, total (Zn)	20	17	>50	0	0		6	8	10	10	10	10	14

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
60	100	7	12

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BLACK RIV AT NC 411 NR TOMAHAWK  
**Station #:** B8750000  
**Latitude:** 34.75440      **Longitude:** -78.28910  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030006  
**Stream class:** C Sw ORW +  
**NC stream index:** 18-68

**Time period:** 02/16/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	47	0	N/A				2.3	4.7	5.6	7.5	9.6	11.2	11.5
pH (SU)	47	0	<4.3	0	0		5.5	5.7	6.2	6.5	6.6	6.8	7.2
	47	0	>9	0	0		5.5	5.7	6.2	6.5	6.6	6.8	7.2
Spec. conductance (umhos/cm at 25°C)	48	0	N/A				66	85	92	110	122	136	182
Water Temperature (°C)	49	0	>32	0	0		5.6	8	11.3	17.3	24.4	27.1	28.2
<b>Other</b>													
TSS (mg/L)	17	6	N/A				2.5	2.7	3	6.2	6.4	8	12
Turbidity (NTU)	49	0	>50	0	0		1.3	2.2	2.7	3.8	5.5	8.8	13
<b>Nutrients (mg/L)</b>													
NH3 as N	49	3	N/A				0.02	0.02	0.03	0.04	0.05	0.09	0.3
NO2 + NO3 as N	49	0	N/A				0.05	0.16	0.32	0.43	0.65	0.95	1.7
TKN as N	49	0	N/A				0.43	0.46	0.54	0.66	0.78	0.94	1.2
Total Phosphorus	49	0	N/A				0.03	0.07	0.08	0.11	0.18	0.24	0.37
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				180	183	202	250	385	427	430
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	10	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1.3	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	14	25	25	25	25	25
Copper, total (Cu)	12	12	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	12	0	>1000	5	41.7	99.9	380	428	570	695	1625	2640	2700
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	11	11	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	10	>50	0	0		10	10	10	10	10	15	17

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
48	81	4	8

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** SOUTH RIV AT SR 1503 NR PARKERSBURG

**Station #:** B8919000

**Hydrologic Unit Code:** 03030006

**Latitude:** 34.81218

**Longitude:** -78.45684

**Stream class:** C Sw ORW +

**Agency:** NCAMBNT

**NC stream index:** 18-68-12-(8.5)

**Time period:** 02/23/2004 to 12/01/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	53	0	N/A				1.4	3.1	4.7	6.4	8.3	9.3	12.4
pH (SU)	54	0	<4.3	1	1.9		4.1	5	5.3	5.8	6.1	6.5	6.8
	54	0	>9	0	0		4.1	5	5.3	5.8	6.1	6.5	6.8
Spec. conductance (umhos/cm at 25°C)	55	0	N/A				48	55	58	66	73	98	174
Water Temperature (°C)	55	0	>32	0	0		4.9	8.7	10.7	18.1	23.3	26.7	28.7
<b>Other</b>													
TSS (mg/L)	19	16	N/A				2.5	2.5	2.5	4	6.2	12	13
Turbidity (NTU)	55	7	>50	0	0		1	1	1.5	2.1	2.9	3.5	5.9
<b>Nutrients (mg/L)</b>													
NH3 as N	55	32	N/A				0.02	0.02	0.02	0.02	0.03	0.04	0.08
NO2 + NO3 as N	55	14	N/A				0.02	0.02	0.02	0.06	0.1	0.24	1.1
TKN as N	55	0	N/A				0.3	0.4	0.49	0.66	0.81	1.04	1.4
Total Phosphorus	55	3	N/A				0.02	0.02	0.02	0.04	0.07	0.08	0.09
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				180	186	222	265	310	508	580
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	5	9	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1.3	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	14	25	25	25	25	25
Copper, total (Cu)	12	12	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	12	0	>1000	5	41.7	99.9	450	459	548	630	1500	1670	1700
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	11	11	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	12	>50	0	0		10	10	10	10	10	10	10

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
55	71	2	4

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** COLLY CRK AT NC 53 AT COLLY

**Station #:** B8981000

**Latitude:** 34.46411

**Longitude:** -78.25692

**Agency:** LCFRP

**Hydrologic Unit Code:** 03030006

**Stream class:** C Sw

**NC stream index:** 18-68-17

**Time period:** 01/07/2004 to 12/11/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	57	0	N/A				3.6	4.3	5.4	7	7.8	9.2	10.6
pH (SU)	57	5	<4.3	50	87.7	100	3.2	3.6	3.8	4	4	4.3	6.2
	57	5	>9	0	0		3.2	3.6	3.8	4	4	4.3	6.2
Spec. conductance (umhos/cm at 25°C)	57	37	N/A				50	58	90	100	100	103	207
Water Temperature (°C)	57	0	>32	0	0		4.7	7.6	12.2	16.6	23	26.5	30.2
<b>Other</b>													
TSS (mg/L)	57	27	N/A				1	1	2	2	3	5	15
<b>Nutrients (mg/L)</b>													
NH3 as N	57	9	N/A				0.01	0.01	0.02	0.03	0.08	0.15	0.44
NO2 + NO3 as N	57	34	N/A				0.01	0.01	0.01	0.02	0.03	0.12	0.52
TKN as N	57	0	N/A				0.2	0.6	0.82	1.06	1.26	1.58	2.2
Total Phosphorus	57	8	N/A				0.01	0.02	0.02	0.04	0.07	0.11	0.4
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	0	N/A				69	541	664	812	1003	1024	1120
Arsenic, total (As)	20	20	>10	0	0		1	3	10	10	10	10	10
Cadmium, total (Cd)	20	20	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	20	19	>50	0	0		5	9	25	25	25	25	25
Copper, total (Cu)	20	20	>7	0	0		0	2	2	2	2	2	2
Iron, total (Fe)	20	0	>1000	6	30	99.8	80	340	424	854	1279	1645	1680
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	19	>88	0	0		5	6	10	10	10	10	10
Zinc, total (Zn)	20	17	>50	0	0		8	9	10	10	10	10	14

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
57	47	1	2

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BLACK RIV AT NC 210 AT STILL BLUFF  
**Station #:** B9000000  
**Latitude:** 34.43124      **Longitude:** -78.14411  
**Agency:** LCFRP

**Hydrologic Unit Code:** 03030006  
**Stream class:** C Sw ORW+  
**NC stream index:** 18-68

**Time period:** 01/07/2004 to 12/11/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				3.5	4.5	5	6.2	8.8	10.1	12.1
pH (SU)	60	0	<4.3	0	0		5.2	5.6	5.8	6.1	6.3	6.5	7.8
	60	0	>9	0	0		5.2	5.6	5.8	6.1	6.3	6.5	7.8
Spec. conductance (umhos/cm at 25°C)	60	29	N/A				66	83	100	100	101	151	186
Water Temperature (°C)	60	0	>32	0	0		5.3	9.1	12.5	18.3	25.3	28.9	31.1
<b>Other</b>													
TSS (mg/L)	60	18	N/A				1	1	2	2	3	4	8
<b>Nutrients (mg/L)</b>													
NH3 as N	60	15	N/A				0.01	0.01	0.02	0.02	0.03	0.05	0.1
NO2 + NO3 as N	60	4	N/A				0.01	0.02	0.07	0.15	0.23	0.35	0.7
TKN as N	60	0	N/A				0.2	0.4	0.6	0.73	0.9	1.35	1.91
Total Phosphorus	60	2	N/A				0.02	0.03	0.04	0.08	0.1	0.13	0.17
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	60												
<b>Geomean</b>	61												
<b># &gt; 400:</b>		2											
<b>% &gt; 400: %Conf:</b>			3										

**Key:**

# result: number of observations  
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 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BLACK RIV AT RACCOON ISLAND NR HUGGINS  
**Station #:** B9013000 **Hydrologic Unit Code:** 03030006  
**Latitude:** 34.37201 **Longitude:** -78.07212 **Stream class:** C Sw ORW +  
**Agency:** NCAMBNT **NC stream index:** 18-68

**Time period:** 02/04/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	52	0	N/A				3.3	3.7	4.2	5.2	7.5	9.5	11.2
pH (SU)	53	0	<4.3	0	0		4.8	5.6	6	6.3	6.6	6.9	7.3
	53	0	>9	0	0		4.8	5.6	6	6.3	6.6	6.9	7.3
Salinity (ppt)	52	0	N/A				0	0	0	0.03	0.06	0.11	0.22
Spec. conductance (umhos/cm at 25°C)	51	0	N/A				49	58	80	94	123	178	435
Water Temperature (°C)	54	0	>32	0	0		5	9.9	13.1	19	26	27.7	30.8
<b>Other</b>													
TSS (mg/L)	20	7	N/A				2.5	3	4	6.1	6.2	7.7	8
Turbidity (NTU)	55	0	>50	0	0		2.1	3.2	4.2	4.8	7.1	8.2	33
<b>Nutrients (mg/L)</b>													
NH3 as N	54	16	N/A				0.02	0.02	0.02	0.04	0.06	0.08	0.14
NO2 + NO3 as N	54	2	N/A				0.02	0.08	0.21	0.31	0.43	0.57	0.97
TKN as N	54	0	N/A				0.43	0.5	0.58	0.66	0.74	0.82	0.93
Total Phosphorus	54	0	N/A				0.04	0.05	0.07	0.1	0.13	0.15	0.18
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				230	245	315	380	430	440	440
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	14	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	14	0	>1000	4	28.6	99.1	430	445	508	985	1200	1300	1400
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	12	>50	0	0		10	10	10	10	10	25	32
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	55	Geomean	51	# > 400:	0	% > 400:	0	%Conf:					

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV DNS HALE PT LANDING NR PHOENIX  
**Station #:** B9020000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.31808 **Longitude:** -78.02639 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-(63)

**Time period:** 02/04/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	52	0	N/A				2.7	3.9	4.6	6.2	8.5	10.1	11.5
pH (SU)	53	0	<4.3	0	0		5.4	6.2	6.4	6.8	6.9	7.1	7.5
	53	0	>9	0	0		5.4	6.2	6.4	6.8	6.9	7.1	7.5
Salinity (ppt)	52	0	N/A				0	0.02	0.05	0.06	0.1	0.16	2.1
Spec. conductance (umhos/cm at 25°C)	51	0	N/A				51	89	115	141	173	247	3861
Water Temperature (°C)	54	0	>32	0	0		5	9.5	13.1	18.9	26.8	28.4	29.8
<b>Other</b>													
TSS (mg/L)	20	1	N/A				2.5	5.1	7.5	9.9	14.8	30.9	42
Turbidity (NTU)	55	0	>50	0	0		4.2	5.8	8	11	15	20	45
<b>Nutrients (mg/L)</b>													
NH3 as N	55	9	N/A				0.02	0.02	0.04	0.06	0.1	0.13	0.18
NO2 + NO3 as N	55	0	N/A				0.24	0.35	0.46	0.56	0.68	0.82	1.4
TKN as N	55	0	N/A				0.46	0.51	0.59	0.67	0.8	0.86	1
Total Phosphorus	55	0	N/A				0.08	0.09	0.11	0.13	0.16	0.19	0.23
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				260	270	355	465	530	970	1400
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	9	>7	0	0		2	2	2	2	2	3	3
Iron, total (Fe)	14	0	>1000	6	42.9	100	580	605	752	985	1100	1550	1900
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	13	>50	0	0		10	10	10	10	10	10	11
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	55	33											
Geomean													
# > 400:				0									
% > 400: %Conf:				0									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV UPS INDIAN CREEK NR PHOENIX  
**Station #:** B9030000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.30278 **Longitude:** -78.01406 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-(63)

**Time period:** 01/07/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	135	0	N/A				2.8	3.7	4.1	5	6.4	9.2	12.6
pH (SU)	135	0	<4.3	0	0		5.4	6.4	6.5	6.7	6.9	7	7.6
	135	0	>9	0	0		5.4	6.4	6.5	6.7	6.9	7	7.6
Spec. conductance (umhos/cm at 25°C)	135	9	N/A				83	100	133	176	229	360	13550
Water Temperature (°C)	135	0	>32	0	0		5.6	12.1	20.5	25.8	29	30	31.7
<b>Other</b>													
TSS (mg/L)	60	0	N/A				4	5	6	8.5	13.8	19.8	43
<b>Nutrients (mg/L)</b>													
NH3 as N	60	11	N/A				0.01	0.02	0.02	0.05	0.07	0.11	0.17
NO2 + NO3 as N	60	2	N/A				0.01	0.13	0.31	0.47	0.61	0.79	1.73
TKN as N	60	0	N/A				0.2	0.5	0.63	0.8	0.93	1.19	2
Total Phosphorus	60	0	N/A				0.06	0.08	0.09	0.12	0.15	0.17	0.46

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	33	1	2

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT NAVASSA

**Station #:** B9050000

**Latitude:** 34.26118

**Longitude:** -77.98907

**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030005

**Stream class:** SC

**NC stream index:** 18-(71)

**Time period:** 02/04/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	51	0	<5	16	31.4	100	3	3.9	4.6	5.8	8.1	9.8	11.4
pH (SU)	52	0	<6.8	18	34.6	100	5.4	6.3	6.6	6.9	7	7.2	7.4
	52	0	>8.5	0	0		5.4	6.3	6.6	6.9	7	7.2	7.4
Salinity (ppt)	51	0	N/A				0	0.01	0.06	0.47	2.8	9.01	21.7
Spec. conductance (umhos/cm at 25°C)	50	0	N/A				55	96	136	632	4807	15223	34528
Water Temperature (°C)	53	0	>32	0	0		5	9.6	13.9	20	26.3	29	29.6
<b>Other</b>													
TSS (mg/L)	20	1	N/A				2.5	5.1	8.4	15	19	23.8	24
Turbidity (NTU)	55	0	>25	3	5.5		5	6.2	8.5	12	16	22	39
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				300	360	438	535	678	1050	1100
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	10	18	25
Cadmium, total (Cd)	14	14	>5	0	0		1	1	2	2	2	6	10
Chromium, total (Cr)	14	14	>20	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	7	>3	3	21.4	95.6	2	2	2	2	3	4	4
Iron, total (Fe)	14	0	N/A				700	715	745	895	1100	1600	1600
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	30	50
Mercury, total (Hg)	12	12	>0.025	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>8.3	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	12	>86	0	0		10	10	10	10	10	15	18

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
55	35	0	0

**Key:**

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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV DNS RR BRIDGE AT NAVASSA  
**Station #:** B9050025 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.25943 **Longitude:** -77.98767 **Stream class:** SC  
**Agency:** LCFRP **NC stream index:** 18-(71)

**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	135	0	<5	65	48.1	100	3	3.7	4.1	5	6.3	9.2	12.3
pH (SU)	135	0	<6.8	42	31.1	100	5.8	6.4	6.7	6.9	7.1	7.3	7.8
	135	0	>8.5	0	0		5.8	6.4	6.7	6.9	7.1	7.3	7.8
Spec. conductance (umhos/cm at 25°C)	135	8	N/A				90	106	153	964	7049	14888	31785
Water Temperature (°C)	135	0	>32	0	0		5.6	11.8	20.6	25.9	28.9	29.9	31.7
<b>Other</b>													
TSS (mg/L)	60	0	N/A				5	8	10	14	23	41.5	85
Turbidity (NTU)	60	0	>25	11	18.3	98.5	5	7.9	9.7	13	20.5	37.4	67.8
<b>Nutrients (mg/L)</b>													
NH3 as N	60	11	N/A				0.02	0.02	0.02	0.06	0.09	0.11	0.15
NO2 + NO3 as N	60	1	N/A				0.01	0.14	0.29	0.41	0.54	0.64	0.88
TKN as N	60	0	N/A				0.1	0.42	0.57	0.72	1	1.31	2.1
Total Phosphorus	60	0	N/A				0.04	0.08	0.09	0.12	0.15	0.19	0.27
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	0	N/A				287	310	396	520	794	1232	3150
Arsenic, total (As)	20	20	>10	0	0		1	3	10	10	10	10	10
Cadmium, total (Cd)	20	20	>5	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	20	20	>20	0	0		5	7	25	25	25	25	25
Copper, total (Cu)	20	12	>3	1	5		2	2	2	2	2	3	4
Iron, total (Fe)	20	0	N/A				546	593	709	882	1065	2298	3000
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.025	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	20	>8.3	0	0		5	6	10	10	10	10	10
Zinc, total (Zn)	20	13	>86	1	5		7	7	10	10	11	21	88

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	37	2	3

**Key:**  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT HORSESHOE BEND NR WILMINGTON  
**Station #:** B9050100 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.24372 **Longitude:** -77.96980 **Stream class:** SC  
**Agency:** LCFRP **NC stream index:** 18-(71)

**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	135	0	<5	62	45.9	100	3.1	3.9	4.3	5.1	6.2	9.3	11.7
pH (SU)	135	0	<6.8	35	25.9	100	5.7	6.5	6.7	7	7.2	7.4	8
	135	0	>8.5	0	0		5.7	6.5	6.7	7	7.2	7.4	8
Spec. conductance (umhos/cm at 25°C)	135	6	N/A				94	115	232	4320	11070	19050	37564
Water Temperature (°C)	135	0	>32	0	0		6.6	11.8	21.4	26.3	29	30.1	32
<b>Other</b>													
TSS (mg/L)	60	0	N/A				5	7.1	9.2	12	15.8	19	47
<b>Nutrients (mg/L)</b>													
NH3 as N	60	12	N/A				0.01	0.02	0.02	0.05	0.09	0.12	0.18
NO2 + NO3 as N	60	1	N/A				0.01	0.1	0.26	0.39	0.54	0.61	0.85
TKN as N	60	2	N/A				0.1	0.4	0.61	0.72	0.92	1.21	1.5
Total Phosphorus	60	0	N/A				0.02	0.07	0.07	0.1	0.13	0.17	0.24

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	37	0	0

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV AT SR 1937 NR MT OLIVE  
**Station #:** B9080000      **Hydrologic Unit Code:** 03030007  
**Latitude:** 35.19140      **Longitude:** -78.01759      **Stream class:** C Sw  
**Agency:** NCAMBNT      **NC stream index:** 18-74-(1)

**Time period:** 01/08/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	50	0	N/A				0.2	0.7	2.2	4.3	8.3	10.3	15.5
pH (SU)	51	0	<4.3	0	0		5.7	6.1	6.2	6.4	6.6	6.7	7.5
	51	0	>9	0	0		5.7	6.1	6.2	6.4	6.6	6.7	7.5
Salinity (ppt)	49	0	N/A				0.18	0.28	0.3	0.59	1.02	1.2	1.5
Spec. conductance (umhos/cm at 25°C)	49	0	N/A				308	547	605	1090	1887	2186	2782
Water Temperature (°C)	52	0	>32	1	1.9		0.9	6.4	10.9	20.2	25.4	27.1	33.5
<b>Other</b>													
Chloride (mg/L)	52	1	>230	29	55.8	100	5	87	130	280	582	691	950
Chlorophyll a (ug/L)	2	0	>40	0	0		6	6	6	9	11	11	11
Fluoride (mg/L)	20	15	>1.8	9	45	100	0	0	0	1	8	19	20
<b>Nutrients (mg/L)</b>													
NH3 as N	2	1	N/A				0.02	0.02	0.02	0.04	0.05	0.05	0.05
NO2 + NO3 as N	2	0	N/A				0.02	0.02	0.02	0.28	0.53	0.53	0.53
TKN as N	2	0	N/A				0.79	0.79	0.79	0.8	0.82	0.82	0.82
Total Phosphorus	2	0	N/A				0.42	0.42	0.42	0.57	0.72	0.72	0.72

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV AT NC 403 NR WILLIAMS  
**Station #:** B9090000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 35.17839 **Longitude:** -77.98072 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-74-(1)

**Time period:** 01/08/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	57	0	N/A				0.4	0.7	2	4.7	7.1	8.4	10.4
pH (SU)	57	0	<4.3	0	0		5.4	6.1	6.3	6.4	6.6	6.8	7.3
	57	0	>9	0	0		5.4	6.1	6.3	6.4	6.6	6.8	7.3
Spec. conductance (umhos/cm at 25°C)	57	0	N/A				172	213	275	371	550	671	1198
Water Temperature (°C)	57	0	>32	0	0		4.8	7	12.4	18.1	23.3	26.8	30.5
<b>Other</b>													
TSS (mg/L)	57	10	N/A				1	1	2	3	5	9.2	14
<b>Nutrients (mg/L)</b>													
NH3 as N	57	7	N/A				0.01	0.02	0.02	0.05	0.09	0.14	0.28
NO2 + NO3 as N	57	13	N/A				0.01	0.02	0.03	0.22	0.54	1.1	1.74
TKN as N	57	0	N/A				0.2	0.47	0.67	0.8	1.1	1.51	3.51
Total Phosphorus	57	1	N/A				0.02	0.06	0.09	0.16	0.32	0.64	0.94

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
57	82	8	14

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV AT NC 403 NR WILLIAMS  
**Station #:** B9090000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 35.17839 **Longitude:** -77.98072 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-74-(1)

**Time period:** 01/08/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	51	0	N/A				0.1	0.4	1.5	4.9	8.3	9.9	10.7
pH (SU)	52	0	<4.3	0	0		5.5	5.8	6	6.2	6.4	6.6	6.8
	52	0	>9	0	0		5.5	5.8	6	6.2	6.4	6.6	6.8
Salinity (ppt)	50	0	N/A				0	0.1	0.13	0.19	0.26	0.32	0.63
Spec. conductance (umhos/cm at 25°C)	50	0	N/A				99	232	280	375	512	646	1199
Water Temperature (°C)	53	0	>32	1	1.9		2.3	6.5	10.3	17.3	24.6	26.6	32.8
<b>Other</b>													
TSS (mg/L)	18	10	N/A				2.5	2.5	3.2	5	7.6	12.1	13
Turbidity (NTU)	53	8	>50	0	0		1	1	1.2	2.6	5.3	11.2	18
<b>Nutrients (mg/L)</b>													
NH3 as N	53	12	N/A				0.02	0.02	0.02	0.03	0.1	0.17	0.19
NO2 + NO3 as N	53	9	N/A				0.02	0.02	0.04	0.35	0.8	1.36	3.2
TKN as N	53	0	N/A				0.38	0.46	0.54	0.7	0.9	1.16	1.8
Total Phosphorus	53	0	N/A				0.04	0.06	0.09	0.13	0.38	0.6	0.97
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				68	69	78	94	142	198	210
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	9	10	10
Cadmium, total (Cd)	12	12	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	12	11	>7	0	0		2	2	2	2	2	5	6
Iron, total (Fe)	12	0	>1000	3	25	97.4	180	192	310	465	1252	1800	1800
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	10	10	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	11	>50	0	0		10	10	10	10	10	11	11
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
53	66	2	4										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** PANTHER CRK NR FAISON

**Station #:** B9130000

**Latitude:** 35.13445

**Longitude:** -78.13630

**Agency:** LCFRP

**Hydrologic Unit Code:** 03030007

**Stream class:** C Sw

**NC stream index:** 18-74-19-3

**Time period:** 01/08/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				2.1	4.2	6.2	7.5	9.2	10.3	14.4
pH (SU)	60	0	<4.3	0	0		5.8	6.3	6.5	6.6	6.8	7	8
	60	0	>9	0	0		5.8	6.3	6.5	6.6	6.8	7	8
Spec. conductance (umhos/cm at 25°C)	60	0	N/A				386	718	1093	2056	4004	9700	13906
Water Temperature (°C)	60	0	>32	1	1.7		4.2	6.6	13	19.4	25.5	29	32.4
<b>Other</b>													
TSS (mg/L)	60	3	N/A				2	3	4	6.5	11.5	16.9	48
<b>Nutrients (mg/L)</b>													
NH3 as N	60	8	N/A				0.01	0.02	0.02	0.06	0.12	0.22	0.65
NO2 + NO3 as N	60	17	N/A				0.01	0.02	0.02	0.11	0.52	1.12	2.46
TKN as N	60	0	N/A				0.32	0.55	0.7	1.03	1.3	1.7	3.92
Total Phosphorus	60	0	N/A				0.04	0.07	0.11	0.16	0.23	0.38	0.68
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	60												
<b>Geomean</b>	215												
<b># &gt; 400:</b>		19											
<b>% &gt; 400: %Conf:</b>			32		98.9								

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** GOSHEN SWAMP AT SR 1004 NR WESTBROOK CROSSROAD  
**Station #:** B9190500 **Hydrologic Unit Code:** 03030007  
**Latitude:** 35.05350 **Longitude:** -77.94740 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-74-19

**Time period:** 01/08/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	56	0	N/A				0.2	3.2	4	6	10.1	11.7	12.7
pH (SU)	57	0	<4.3	0	0		5.4	5.9	6.4	6.5	6.7	6.9	7.3
	57	0	>9	0	0		5.4	5.9	6.4	6.5	6.7	6.9	7.3
Salinity (ppt)	55	0	N/A				0	0.06	0.08	0.1	0.13	0.17	0.41
Spec. conductance (umhos/cm at 25°C)	55	0	N/A				83	132	155	194	271	335	791
Water Temperature (°C)	58	0	>32	0	0		0.2	5.3	9.6	18.2	24	25.9	30.7
<b>Other</b>													
TSS (mg/L)	20	9	N/A				2.5	2.5	3	4.2	6.2	6.2	25
Turbidity (NTU)	58	1	>50	1	1.7		1	1.6	3.2	5.2	8.4	11	80
<b>Nutrients (mg/L)</b>													
NH3 as N	58	30	N/A				0.02	0.02	0.02	0.02	0.03	0.08	0.29
NO2 + NO3 as N	58	19	N/A				0.02	0.02	0.02	0.06	0.15	0.63	2.2
TKN as N	58	0	N/A				0.35	0.44	0.56	0.74	0.84	1.11	2.4
Total Phosphorus	58	0	N/A				0.02	0.05	0.06	0.13	0.16	0.2	1.2
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				59	59	90	120	212	490	710
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	13	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	14	0	>1000	10	71.4	100	370	435	918	1500	2050	2350	2400
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	14	>50	0	0		10	10	10	10	10	10	10
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	58	Geomean	84	# > 400:	0	% > 400:	0	%Conf:					

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** GOSHEN SWAMP AT NC 11 AND NC 903 NR KORNEGAY  
**Station #:** B9191000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 35.02808 **Longitude:** -77.85160 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-74-19

**Time period:** 01/08/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				0.3	0.7	1.3	4.1	8	10.3	13.3
pH (SU)	60	0	<4.3	0	0		5.2	6.2	6.3	6.5	6.7	6.8	7.1
	60	0	>9	0	0		5.2	6.2	6.3	6.5	6.7	6.8	7.1
Spec. conductance (umhos/cm at 25°C)	60	1	N/A				100	143	158	192	220	278	622
Water Temperature (°C)	60	0	>32	0	0		3.3	7.2	12	17.9	24.1	25.8	29.6
<b>Other</b>													
TSS (mg/L)	60	11	N/A				1	2	2	4	11	21.9	30
<b>Nutrients (mg/L)</b>													
NH3 as N	60	10	N/A				0.01	0.01	0.02	0.03	0.08	0.18	0.52
NO2 + NO3 as N	60	31	N/A				0.01	0.01	0.02	0.02	0.05	0.23	0.76
TKN as N	60	0	N/A				0.1	0.4	0.64	1	1.4	1.8	2.3
Total Phosphorus	60	2	N/A				0.02	0.04	0.06	0.11	0.27	0.51	1.06

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	105	10	17

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV AT SR 1700 NR SARECTA  
**Station #:** B9191500 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.98008 **Longitude:** -77.86221 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-74-1

**Time period:** 01/08/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				3.6	4.4	5.4	6.7	8.5	9.9	11.9
pH (SU)	60	0	<4.3	0	0		5.6	6.1	6.5	6.6	7	7.1	7.3
	60	0	>9	0	0		5.6	6.1	6.5	6.6	7	7.1	7.3
Spec. conductance (umhos/cm at 25°C)	60	1	N/A				100	132	156	186	216	334	525
Water Temperature (°C)	60	0	>32	0	0		3.8	7	13.2	17.6	24.2	26.9	30.2
<b>Other</b>													
TSS (mg/L)	60	12	N/A				1	2	3	3	6	9	12
<b>Nutrients (mg/L)</b>													
NH3 as N	60	9	N/A				0.01	0.02	0.02	0.04	0.06	0.13	0.42
NO2 + NO3 as N	60	2	N/A				0.01	0.05	0.12	0.25	0.52	0.92	1.55
TKN as N	60	0	N/A				0.2	0.59	0.75	1.01	1.2	1.63	2.2
Total Phosphorus	60	1	N/A				0.02	0.04	0.08	0.12	0.17	0.22	0.88
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	1	N/A				22	56	130	170	308	393	551
Arsenic, total (As)	20	19	>10	1	5		1	3	10	10	10	10	22
Cadmium, total (Cd)	20	20	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	20	20	>50	0	0		5	7	25	25	25	25	25
Copper, total (Cu)	20	19	>7	0	0		0	2	2	2	2	2	2
Iron, total (Fe)	20	0	>1000	9	45	100	235	243	463	988	1300	1489	1850
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	20	>88	0	0		5	6	10	10	10	10	10
Zinc, total (Zn)	20	19	>50	0	0		5	6	10	10	10	10	13

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
60	144	10	17

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV AT SR 1961 AT HALLSVILLE  
**Station #:** B9196000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.90589 **Longitude:** -77.84088 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-74-(1)

**Time period:** 01/08/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	56	0	N/A				3.9	5.8	6.6	7.7	9.8	11.4	12.4
pH (SU)	57	0	<4.3	0	0		5.3	6.1	6.3	6.6	6.8	6.9	7.1
	57	0	>9	0	0		5.3	6.1	6.3	6.6	6.8	6.9	7.1
Salinity (ppt)	55	0	N/A				0	0.03	0.06	0.08	0.1	0.11	0.17
Spec. conductance (umhos/cm at 25°C)	55	0	N/A				73	114	132	151	202	247	350
Water Temperature (°C)	58	0	>32	0	0		1	5.5	10.2	17.4	24.8	26.9	31.7
<b>Other</b>													
TSS (mg/L)	20	6	N/A				2.5	2.5	2.8	5.8	8.3	11.7	13
Turbidity (NTU)	58	0	>50	0	0		1.9	2.4	3.1	4.2	5.3	7.6	16
<b>Nutrients (mg/L)</b>													
NH3 as N	58	19	N/A				0.02	0.02	0.02	0.02	0.04	0.06	0.11
NO2 + NO3 as N	58	1	N/A				0.02	0.15	0.2	0.32	0.65	0.76	1.7
TKN as N	58	0	N/A				0.49	0.59	0.65	0.74	0.82	1	1.6
Total Phosphorus	58	0	N/A				0.04	0.06	0.08	0.13	0.17	0.21	0.64
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				120	135	182	250	308	340	350
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	13	>7	0	0		2	2	2	2	2	2	3
Iron, total (Fe)	14	0	>1000	5	35.7	99.9	500	505	815	985	1225	1500	1600
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	11	>50	0	0		10	10	10	10	11	23	23
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
58	118	2	3										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKFISH CRK AT US 117 NR WALLACE  
**Station #:** B9430000  
**Latitude:** 34.71684      **Longitude:** -77.97949  
**Agency:** LCFRP

**Hydrologic Unit Code:** 03030007  
**Stream class:** C Sw  
**NC stream index:** 18-74-29

**Time period:** 01/08/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				3.3	5	6.1	7.5	9.5	11	12.2
pH (SU)	60	0	<4.3	0	0		5.8	6.5	6.7	7	7.1	7.3	8.2
	60	0	>9	0	0		5.8	6.5	6.7	7	7.1	7.3	8.2
Spec. conductance (umhos/cm at 25°C)	60	6	N/A				86	100	115	137	161	238	635
Water Temperature (°C)	60	0	>32	0	0		5.7	7.2	12.7	18.6	23.3	26.7	29.5
<b>Other</b>													
TSS (mg/L)	60	9	N/A				1	2	2.2	4	6	11	18
<b>Nutrients (mg/L)</b>													
NH3 as N	60	10	N/A				0.01	0.02	0.02	0.04	0.06	0.11	0.34
NO2 + NO3 as N	60	3	N/A				0.01	0.07	0.17	0.38	0.71	1.34	3.6
TKN as N	60	1	N/A				0.2	0.55	0.8	1	1.21	1.39	2
Total Phosphorus	60	1	N/A				0.02	0.06	0.11	0.18	0.36	0.51	0.9
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	93	4	7										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LITTLE ROCKFISH CRK AT NC 11 NR WALLACE  
**Station #:** B9460000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.72244 **Longitude:** -77.98141 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-74-29-6

**Time period:** 01/08/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	59	0	N/A				5.3	7.4	8.3	9.2	10.7	11.7	12.9
pH (SU)	59	0	<4.3	0	0		5.8	6.6	6.9	7.2	7.5	7.7	8.2
	59	0	>9	0	0		5.8	6.6	6.9	7.2	7.5	7.7	8.2
Spec. conductance (umhos/cm at 25°C)	59	3	N/A				90	100	115	131	155	211	291
Water Temperature (°C)	59	0	>32	0	0		5.5	7.8	13.5	18.5	24.7	26.9	29.4
<b>Other</b>													
TSS (mg/L)	59	9	N/A				1	2	2	3	5	12	25
Turbidity (NTU)	58	1	>50	0	0		1	2.5	3	4	6.1	10.4	17.9
<b>Nutrients (mg/L)</b>													
NH3 as N	59	12	N/A				0.01	0.02	0.02	0.04	0.08	0.16	0.37
NO2 + NO3 as N	59	12	N/A				0.01	0.02	0.03	0.07	0.25	0.4	0.91
TKN as N	59	1	N/A				0.2	0.39	0.56	0.75	0.9	1.2	2
Total Phosphorus	59	4	N/A				0.01	0.02	0.03	0.05	0.07	0.1	0.15
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	1	N/A				5	45	145	224	323	531	745
Arsenic, total (As)	20	20	>10	0	0		1	3	10	10	10	10	10
Cadmium, total (Cd)	20	20	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	20	20	>50	0	0		5	7	25	25	25	25	25
Copper, total (Cu)	20	19	>7	0	0		0	2	2	2	2	2	5
Iron, total (Fe)	20	0	>1000	11	55	100	412	437	630	1130	1792	2182	3160
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	20	>88	0	0		5	6	10	10	10	10	10
Zinc, total (Zn)	20	16	>50	0	0		5	7	10	10	10	14	20

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
59	90	8	14

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ROCKFISH CRK AT I 40 AT WALLACE  
**Station #:** B9470000  
**Latitude:** 34.71913      **Longitude:** -77.94622  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030007  
**Stream class:** C Sw  
**NC stream index:** 18-74-29

**Time period:** 01/08/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	56	0	N/A				2.4	5.4	6.1	7.4	9.9	10.9	12
pH (SU)	57	0	<4.3	0	0		5.3	6.2	6.4	6.7	6.9	7	7.5
	57	0	>9	0	0		5.3	6.2	6.4	6.7	6.9	7	7.5
Salinity (ppt)	55	0	N/A				0	0.02	0.04	0.05	0.1	0.13	0.22
Spec. conductance (umhos/cm at 25°C)	55	0	N/A				70	87	112	125	177	280	443
Water Temperature (°C)	58	0	>32	0	0		2.4	6.5	11.1	17.9	24.6	26.7	29.2
<b>Other</b>													
TSS (mg/L)	20	9	N/A				2.5	2.5	2.6	5.6	6.2	8.9	12
Turbidity (NTU)	58	0	>50	0	0		1.3	2.5	3.6	4.9	6.9	8.7	11
<b>Nutrients (mg/L)</b>													
NH3 as N	58	16	N/A				0.02	0.02	0.02	0.04	0.06	0.07	0.14
NO2 + NO3 as N	58	0	N/A				0.12	0.34	0.49	0.74	1.2	3.78	6.4
TKN as N	58	0	N/A				0.43	0.52	0.61	0.78	0.95	1.01	1.4
Total Phosphorus	58	0	N/A				0.06	0.08	0.12	0.22	0.35	0.55	0.81
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				94	102	158	220	382	435	440
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	12	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	14	0	>1000	9	64.3	100	530	625	920	1250	2075	2950	3400
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	10	>50	0	0		10	10	10	10	10	12	13
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
58	137	7	12										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
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**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV AT SR 1318 NR WATHA  
**Station #:** B9480000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.64594 **Longitude:** -77.87246 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-74-(29.5)

**Time period:** 01/08/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	56	0	N/A				2.5	4.6	5.1	7	9.3	11.2	11.6
pH (SU)	57	0	<4.3	0	0		5.2	6	6.2	6.6	6.7	6.8	7.1
	57	0	>9	0	0		5.2	6	6.2	6.6	6.7	6.8	7.1
Salinity (ppt)	55	0	N/A				0	0.02	0.05	0.06	0.1	0.1	0.13
Spec. conductance (umhos/cm at 25°C)	55	0	N/A				67	89	117	132	158	202	273
Water Temperature (°C)	58	0	>32	0	0		3.3	5.9	10.7	18.2	25.2	27.9	31.6
<b>Other</b>													
TSS (mg/L)	20	6	N/A				3	3.1	4.4	6.1	7.2	12	15
Turbidity (NTU)	58	0	>50	0	0		2.1	2.7	4	5.1	6.2	7.7	14
<b>Nutrients (mg/L)</b>													
NH3 as N	58	15	N/A				0.02	0.02	0.02	0.04	0.06	0.08	0.24
NO2 + NO3 as N	58	0	N/A				0.05	0.18	0.29	0.46	0.59	0.85	1.4
TKN as N	58	0	N/A				0.52	0.55	0.63	0.72	0.87	0.99	1.4
Total Phosphorus	58	0	N/A				0.06	0.07	0.11	0.16	0.19	0.22	0.28
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				190	215	248	285	392	500	520
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	14	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	14	0	>1000	6	42.9	100	500	535	762	970	1325	1600	1700
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	14	>50	0	0		10	10	10	10	10	10	10
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
58	84	6	10										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ANGOLA CRK AT NC 53 NR MAPLE HILL  
**Station #:** B9490000  
**Latitude:** 34.65617      **Longitude:** -77.73508  
**Agency:** LCFRP

**Hydrologic Unit Code:** 03030007  
**Stream class:** C Sw  
**NC stream index:** 18-74-33-3

**Time period:** 01/08/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				0.7	1.4	2.8	4.7	7.5	9.9	11.7
pH (SU)	60	0	<4.3	0	0		4.3	5	5.6	5.9	6.5	6.9	7.1
	60	0	>9	0	0		4.3	5	5.6	5.9	6.5	6.9	7.1
Spec. conductance (umhos/cm at 25°C)	60	24	N/A				61	85	100	100	156	198	219
Water Temperature (°C)	60	0	>32	0	0		5.3	7.8	12.3	18.9	24.6	27.8	30.3
<b>Other</b>													
TSS (mg/L)	60	9	N/A				2	2	3	3	4.8	6	27
<b>Nutrients (mg/L)</b>													
NH3 as N	60	9	N/A				0.01	0.02	0.02	0.06	0.1	0.22	0.47
NO2 + NO3 as N	60	19	N/A				0.01	0.01	0.02	0.03	0.1	0.27	0.75
TKN as N	60	0	N/A				0.4	0.81	1.12	1.38	1.67	1.81	9.2
Total Phosphorus	60	1	N/A				0.02	0.04	0.09	0.12	0.2	0.24	0.51

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	79	4	7

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ANGOLA CRK AT NC 53 NR MAPLE HILL  
**Station #:** B9490000  
**Latitude:** 34.65617      **Longitude:** -77.73508  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030007  
**Stream class:** C Sw  
**NC stream index:** 18-74-33-3

**Time period:** 01/08/2004 to 12/11/2006

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	35	0	N/A				0.2	0.6	3.1	5.1	8.9	9.9	10.9
pH (SU)	35	0	<4.3	1	2.9		4.1	5	5.4	5.9	6	6.2	6.5
	35	0	>9	0	0		4.1	5	5.4	5.9	6	6.2	6.5
Salinity (ppt)	35	0	N/A				0	0	0	0.03	0.04	0.04	0.1
Spec. conductance (umhos/cm at 25°C)	35	0	N/A				50	60	76	85	102	112	140
Water Temperature (°C)	35	0	>32	0	0		1.6	5.1	9.5	15.3	23.5	25.3	27.4
<b>Other</b>													
TSS (mg/L)	12	1	N/A				2.5	2.7	3	4.1	8.2	15.5	18
Turbidity (NTU)	35	0	>50	0	0		3.1	3.4	3.8	5.4	6.7	10	14
<b>Nutrients (mg/L)</b>													
NH3 as N	35	8	N/A				0.02	0.02	0.03	0.06	0.17	0.49	1
NO2 + NO3 as N	35	14	N/A				0.02	0.02	0.02	0.04	0.19	0.45	1.1
TKN as N	35	0	N/A				0.95	0.99	1.1	1.3	1.5	1.84	2
Total Phosphorus	35	0	N/A				0.08	0.1	0.13	0.16	0.26	0.34	0.4
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	12	0	N/A				450	483	840	990	1075	1480	1600
Arsenic, total (As)	12	12	>10	0	0		5	5	5	5	9	10	10
Cadmium, total (Cd)	12	12	>2	0	0		2	2	2	2	2	2	2
Chromium, total (Cr)	12	12	>50	0	0		25	25	25	25	25	25	25
Copper, total (Cu)	12	9	>7	0	0		2	2	2	2	2	3	4
Iron, total (Fe)	12	0	>1000	5	41.7	99.9	520	568	690	735	1100	1100	1100
Lead, total (Pb)	12	12	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	12	12	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	12	10	>50	0	0		10	10	10	10	10	11	11
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	35	Geomean	109	# > 400:	5	% > 400:	14						

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BURGAW CREEK AT SR 1345 WRIGHT ST AT BURGAW  
**Station #:** B9500000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.56334 **Longitude:** -77.93481 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-74-39

**Time period:** 01/08/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				0.3	1.4	3.4	5.8	8.5	10.9	12.2
pH (SU)	60	0	<4.3	0	0		5.3	5.9	6.5	6.9	7.2	7.4	8.2
	60	0	>9	0	0		5.3	5.9	6.5	6.9	7.2	7.4	8.2
Spec. conductance (umhos/cm at 25°C)	60	11	N/A				100	100	116	210	265	316	859
Water Temperature (°C)	60	0	>32	0	0		4.6	6.8	11.3	17.4	22.5	24.9	27.3
<b>Other</b>													
Chlorophyll a (ug/L)	25	5	>40	5	20	96.7	1	1	1	5	38	202	302
TSS (mg/L)	60	0	N/A				2	3	6	7	11	14.9	27
Turbidity (NTU)	59	0	>50	1	1.7		4	5.9	8	11	14.7	18.1	68
<b>Nutrients (mg/L)</b>													
NH3 as N	60	7	N/A				0.01	0.01	0.02	0.05	0.09	0.25	0.71
NO2 + NO3 as N	60	11	N/A				0.01	0.01	0.04	0.09	0.15	0.49	1.93
TKN as N	60	1	N/A				0.2	0.35	0.6	0.86	1.28	1.62	2.7
Total Phosphorus	60	1	N/A				0.02	0.03	0.05	0.12	0.18	0.34	0.51

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
60	174	17	28	95.7

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BURGAW CREEK AT US 117 AT BURGAW  
**Station #:** B9520000  
**Latitude:** 34.56375      **Longitude:** -77.92202  
**Agency:** LCFRP

**Hydrologic Unit Code:** 03030007  
**Stream class:** C Sw  
**NC stream index:** 18-74-39

**Time period:** 01/08/2004 to 12/04/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				1.7	4.6	5.5	7.2	9.5	11.7	17.2
pH (SU)	60	0	<4.3	0	0		6.3	6.6	7.1	7.4	7.6	7.9	8.1
	60	0	>9	0	0		6.3	6.6	7.1	7.4	7.6	7.9	8.1
Spec. conductance (umhos/cm at 25°C)	60	0	N/A				126	174	309	568	896	1168	1258
Water Temperature (°C)	60	0	>32	0	0		6.7	9.6	13.7	18.1	22.9	26.2	29
<b>Other</b>													
Chlorophyll a (ug/L)	25	5	>40	0	0		1	1	1	2	3	6	8
TSS (mg/L)	60	0	N/A				3	4.1	5.2	7	11	16.9	29
Turbidity (NTU)	60	0	>50	0	0		4.6	5.5	6.6	8.4	11.8	14.6	24.1
<b>Nutrients (mg/L)</b>													
NH3 as N	60	7	N/A				0.02	0.02	0.04	0.06	0.11	0.17	6.51
NO2 + NO3 as N	60	0	N/A				0.02	0.25	0.79	3.93	10.6	20.86	76.61
TKN as N	60	2	N/A				0.1	0.3	0.7	1.09	1.39	1.72	11.29
Total Phosphorus	60	0	N/A				0.15	0.21	0.39	0.81	2.18	3.55	4.28
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	0	N/A				76	203	220	354	464	659	787
Arsenic, total (As)	20	20	>10	0	0		1	3	10	10	10	10	10
Cadmium, total (Cd)	20	20	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	20	19	>50	0	0		5	13	25	25	25	25	25
Copper, total (Cu)	20	11	>7	3	15	86.7	2	2	2	2	6	9	21
Iron, total (Fe)	20	0	>1000	5	25	98.9	398	487	629	759	1078	1340	1890
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	20	>88	0	0		5	6	10	10	10	10	10
Zinc, total (Zn)	20	5	>50	0	0		7	8	10	18	30	36	38
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	363	28	47	100									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BURGAW CREEK AT US 117 AT BURGAW  
**Station #:** B9520000  
**Latitude:** 34.56375      **Longitude:** -77.92202  
**Agency:** NCAMBNT

**Hydrologic Unit Code:** 03030007  
**Stream class:** C Sw  
**NC stream index:** 18-74-39

**Time period:** 01/08/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	56	0	N/A				2.5	6.3	7.7	9.2	10.9	12.6	15.1
pH (SU)	57	0	<4.3	0	0		6.1	6.8	7.1	7.5	7.8	8	8.6
	57	0	>9	0	0		6.1	6.8	7.1	7.5	7.8	8	8.6
Salinity (ppt)	55	0	N/A				0	0.1	0.14	0.3	0.47	0.57	0.62
Spec. conductance (umhos/cm at 25°C)	55	0	N/A				68	215	289	556	906	1086	1175
Water Temperature (°C)	57	0	>32	0	0		5	8.9	13.6	19.6	26.1	29	31.3
<b>Other</b>													
Chlorophyll a (ug/L)	41	12	>40	0	0		1	1	1	2	3	4	6
TSS (mg/L)	20	5	N/A				4	4.5	6	6.6	11.3	14	22
Turbidity (NTU)	58	0	>50	0	0		3.6	5	6.3	8.4	11	15	23
<b>Nutrients (mg/L)</b>													
NH3 as N	58	16	N/A				0.02	0.02	0.02	0.04	0.06	0.16	0.97
NO2 + NO3 as N	58	0	N/A				0.05	1.24	3.42	8.85	17	23.1	26
TKN as N	58	1	N/A				0.2	0.6	0.8	1	1.2	1.41	3
Total Phosphorus	58	0	N/A				0.21	0.34	0.63	1.4	2.82	3.61	4
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				240	245	298	420	468	595	640
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	1	>7	6	42.9	100	2	2	3	6	9	11	11
Iron, total (Fe)	14	0	>1000	4	28.6	99.1	550	550	625	775	1100	2600	3000
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	0	>50	0	0		10	10	13	26	32	46	49
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
58	258	18	31	98.5									

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** LILLINGTON CRK AT SR 1520 NR STAG PARK  
**Station #:** B9550000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.50844 **Longitude:** -77.81537 **Stream class:** C Sw  
**Agency:** NCAMBNT **NC stream index:** 18-74-42

**Time period:** 01/08/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	56	0	N/A				0.5	2.8	4.4	6.4	9.2	10.4	11.5
pH (SU)	57	0	<4.3	25	43.9	100	3.3	3.7	4	4.4	5.2	5.6	6
	57	0	>9	0	0		3.3	3.7	4	4.4	5.2	5.6	6
Salinity (ppt)	55	0	N/A				0	0	0	0.01	0.02	0.03	0.04
Spec. conductance (umhos/cm at 25°C)	55	0	N/A				39	47	48	55	72	87	106
Water Temperature (°C)	58	0	>32	0	0		2.2	6.2	9.9	15.6	22.3	23.8	27.2
<b>Other</b>													
TSS (mg/L)	20	8	N/A				2.5	2.5	2.6	4.4	6.2	11.8	22
Turbidity (NTU)	58	0	>50	1	1.7		2.7	3.7	4.7	6.6	8.5	12.1	75
<b>Nutrients (mg/L)</b>													
NH3 as N	58	24	N/A				0.02	0.02	0.02	0.02	0.05	0.08	0.16
NO2 + NO3 as N	58	55	N/A				0.02	0.02	0.02	0.02	0.02	0.02	0.04
TKN as N	58	0	N/A				0.48	0.64	0.74	0.84	0.97	1.11	1.3
Total Phosphorus	58	0	N/A				0.02	0.03	0.03	0.04	0.06	0.08	0.11
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				960	980	1100	1200	1425	1550	1600
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	14	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	14	0	>1000	0	0		420	430	480	685	792	945	1000
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	13	>50	0	0		10	10	10	10	10	12	15
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
58	83	2	3										

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV AT US 117 AT CASTLE HAYNE  
**Station #:** B9580000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.36366 **Longitude:** -77.89645 **Stream class:** B Sw  
**Agency:** LCFRP **NC stream index:** 18-74-(47.5)

**Time period:** 01/07/2004 to 12/11/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	N/A				3.1	3.6	4	6	8.4	10.2	12.1
pH (SU)	60	0	<4.3	0	0		5.4	5.8	6.1	6.3	6.6	6.8	7.6
	60	0	>9	0	0		5.4	5.8	6.1	6.3	6.6	6.8	7.6
Spec. conductance (umhos/cm at 25°C)	60	4	N/A				87	101	121	148	189	255	4566
Water Temperature (°C)	60	0	>32	0	0		5.2	9.9	12.1	20.1	26.6	29.4	30.8
<b>Other</b>													
TSS (mg/L)	60	4	N/A				1	2	3	3	4.8	6	10
<b>Nutrients (mg/L)</b>													
NH3 as N	60	13	N/A				0.01	0.02	0.02	0.03	0.05	0.07	0.15
NO2 + NO3 as N	60	3	N/A				0.01	0.03	0.12	0.18	0.3	0.42	0.73
TKN as N	60	0	N/A				0.2	0.5	0.65	0.81	1	1.16	1.49
Total Phosphorus	60	0	N/A				0.03	0.04	0.06	0.08	0.11	0.15	0.81
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	1	N/A				50	168	364	460	526	647	693
Arsenic, total (As)	20	20	>10	0	0		1	3	10	10	10	10	10
Cadmium, total (Cd)	20	20	>2	0	0		1	1.1	2	2	2	2	2
Chromium, total (Cr)	20	20	>50	0	0		5	7	25	25	25	25	25
Copper, total (Cu)	20	20	>7	0	0		0	2	2	2	2	2	2
Iron, total (Fe)	20	0	>1000	2	10	67.7	386	453	529	669	852	1051	1110
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	20	>88	0	0		5	6	10	10	10	10	10
Zinc, total (Zn)	20	18	>50	0	0		5	7	10	10	10	10	18

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
60	49	4	7

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV AT US 117 AT CASTLE HAYNE  
**Station #:** B9580000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.36366 **Longitude:** -77.89645 **Stream class:** B Sw  
**Agency:** NCAMBNT **NC stream index:** 18-74-(47.5)

**Time period:** 01/08/2004 to 12/03/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	55	0	N/A				2.7	3.5	4.2	5.4	8.1	9.6	11.5
pH (SU)	56	0	<4.3	0	0		4.8	5.8	6	6.3	6.5	6.6	6.9
	56	0	>9	0	0		4.8	5.8	6	6.3	6.5	6.6	6.9
Salinity (ppt)	54	0	N/A				0	0	0.03	0.05	0.1	0.14	2.35
Spec. conductance (umhos/cm at 25°C)	54	0	N/A				56	90	108	126	180	277	4299
Water Temperature (°C)	57	0	>32	0	0		5	8.7	11.7	18.5	26.4	28	29.4
<b>Other</b>													
TSS (mg/L)	20	7	N/A				2.5	2.5	3	4.9	6.2	10.7	28
Turbidity (NTU)	57	0	>50	0	0		2	2.4	3	3.6	4.5	5.8	8.8
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				230	255	350	435	505	680	680
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	6	10	10
Cadmium, total (Cd)	14	14	>2	0	0		1	1	2	2	2	2	2
Chromium, total (Cr)	14	14	>50	0	0		10	10	25	25	25	25	25
Copper, total (Cu)	14	14	>7	0	0		2	2	2	2	2	2	2
Iron, total (Fe)	14	0	>1000	2	14.3	84.2	470	505	645	800	960	1150	1200
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	10	10
Mercury, total (Hg)	12	12	>0.012	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>88	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	14	>50	0	0		10	10	10	10	10	10	10

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
57	35	0	0

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV NR WRIGHTSBORO  
**Station #:** B9670000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.31526 **Longitude:** -77.95307 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-74-(52.5)

**Time period:** 01/07/2004 to 12/17/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	N/A				2.1	3.7	4.4	5.6	7.6	9.4	11.6
pH (SU)	83	0	<4.3	0	0		5.8	6.3	6.4	6.7	7	7.2	7.7
	83	0	>9	0	0		5.8	6.3	6.4	6.7	7	7.2	7.7
Spec. conductance (umhos/cm at 25°C)	83	6	N/A				98	107	166	1014	9280	19573	35493
Water Temperature (°C)	83	0	>32	0	0		5.9	10.9	15.4	23.6	27.9	29.5	31.2
<b>Other</b>													
TSS (mg/L)	60	0	N/A				3	4.1	7	11	22	40.9	66
<b>Nutrients (mg/L)</b>													
NH3 as N	60	8	N/A				0.01	0.02	0.02	0.03	0.05	0.08	0.13
NO2 + NO3 as N	60	2	N/A				0.01	0.05	0.11	0.2	0.34	0.43	0.52
TKN as N	60	0	N/A				0.2	0.47	0.65	0.8	1	1.19	2.1
Total Phosphorus	60	1	N/A				0.02	0.05	0.07	0.09	0.13	0.17	0.24
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	49	1	2										

**Key:**  
 # result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** SMITH CRK AT US 117 AND NC 133 AT WILMINGTON  
**Station #:** B9720000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.25861 **Longitude:** -77.93913 **Stream class:** C Sw  
**Agency:** LCFRP **NC stream index:** 18-74-63

**Time period:** 01/20/2004 to 12/11/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	56	0	N/A				3.1	3.8	4.5	6	8.1	9.7	11.4
pH (SU)	56	0	<4.3	0	0		5.7	6.1	6.5	6.8	7	7.1	7.8
	56	0	>9	0	0		5.7	6.1	6.5	6.8	7	7.1	7.8
Spec. conductance (umhos/cm at 25°C)	56	3	N/A				100	183	829	3528	11223	19034	36796
Water Temperature (°C)	56	0	>32	0	0		6.4	10.9	14	22.6	27.6	29.9	30.9
<b>Other</b>													
TSS (mg/L)	2	0	N/A				18	18	18	34	50	50	50

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>
56	78	5	9	

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** NORTHEAST CAPE FEAR RIV AT NC 133 AT WILMINGTON  
**Station #:** B9740000 **Hydrologic Unit Code:** 03030007  
**Latitude:** 34.25183 **Longitude:** -77.95104 **Stream class:** SC Sw  
**Agency:** NCAMBNT **NC stream index:** 18-74-(61)

**Time period:** 02/04/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	50	0	N/A				3.2	3.8	4.5	6	7.7	9.7	10.3
pH (SU)	51	0	<4.3	0	0		5.6	6.4	6.8	7	7.1	7.3	7.5
	51	0	>8.5	0	0		5.6	6.4	6.8	7	7.1	7.3	7.5
Salinity (ppt)	50	0	N/A				0.01	0.52	2.18	6.84	11.6	17.61	23.95
Spec. conductance (umhos/cm at 25°C)	49	0	N/A				52	992	4019	11193	18134	28518	37731
Water Temperature (°C)	52	0	>32	0	0		6	9.9	13.8	20.7	26.3	28.7	29.6
<b>Other</b>													
TSS (mg/L)	20	1	N/A				2.5	4.8	8.6	12.5	22	38	41
Turbidity (NTU)	55	0	>25	1	1.8		2.9	5.1	6.5	8.7	11	16	32
<b>Nutrients (mg/L)</b>													
NH3 as N	55	7	N/A				0.02	0.02	0.06	0.1	0.13	0.16	0.3
NO2 + NO3 as N	55	1	N/A				0.02	0.17	0.26	0.36	0.43	0.53	0.63
TKN as N	55	1	N/A				0.2	0.45	0.58	0.65	0.74	0.81	1
Total Phosphorus	55	0	N/A				0.06	0.08	0.08	0.1	0.11	0.12	0.13
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				270	315	388	490	580	815	920
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	25	50	50
Cadmium, total (Cd)	14	14	>5	0	0		1	1.5	2	2	10	10	10
Chromium, total (Cr)	14	14	>20	0	0		10	10	25	25	25	38	50
Copper, total (Cu)	14	9	>3	3	21.4	95.6	2	2	2	2	5	10	10
Iron, total (Fe)	14	0	N/A				470	475	558	680	918	1150	1200
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	50	50
Mercury, total (Hg)	12	12	>0.025	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>8.3	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	9	>86	0	0		10	10	10	10	11	18	20
<b>Fecal Coliform Screening(#/100mL)</b>													
# results:	55	40											
Geomean													
# > 400:				0									
% > 400: %Conf:				0									

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** BRUNSWICK RIV DNS NC 17 AT PARK NR BELVILLE  
**Station #:** B9790000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.22045 **Longitude:** -77.97966 **Stream class:** SC  
**Agency:** LCFRP **NC stream index:** 18-77

**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	60	0	<5	12	20	99.4	3.5	4.4	5.1	6.5	9	10.2	11.8
pH (SU)	60	0	<6.8	3	5		6.2	6.8	7	7.2	7.4	7.8	7.9
	60	0	>8.5	0	0		6.2	6.8	7	7.2	7.4	7.8	7.9
Spec. conductance (umhos/cm at 25°C)	60	3	N/A				100	124	375	5443	11711	18625	36149
Water Temperature (°C)	60	0	>32	1	1.7		7	9.4	12.5	20.2	27.4	29.8	32.3
<b>Other</b>													
TSS (mg/L)	60	0	N/A				4	6	8.2	11	15	18	30
<b>Nutrients (mg/L)</b>													
NH3 as N	60	8	N/A				0.01	0.02	0.02	0.06	0.09	0.12	0.23
NO2 + NO3 as N	60	0	N/A				0.03	0.11	0.24	0.36	0.51	0.59	0.77
TKN as N	60	1	N/A				0.1	0.48	0.58	0.7	0.81	1.09	1.7
Total Phosphorus	60	0	N/A				0.03	0.06	0.08	0.1	0.11	0.14	0.2

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	37	0	0

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT CM 54

**Station #:** B9795000

**Latitude:** 34.13933

**Longitude:** -77.94595

**Agency:** LCFRP

**Hydrologic Unit Code:** 03030005

**Stream class:** SC

**NC stream index:** 18-(71)

**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<5	17	20.5	99.9	3.3	4.5	5.3	6.3	8	9.6	11.3
pH (SU)	83	0	<6.8	6	7.2		6.4	7	7.3	7.5	7.6	7.8	8
	83	0	>8.5	0	0		6.4	7	7.3	7.5	7.6	7.8	8
Spec. conductance (umhos/cm at 25°C)	83	0	N/A				111	2276	8811	17000	23536	32547	41850
Water Temperature (°C)	83	0	>32	0	0		7.1	11.4	15.6	23.9	28.2	29.7	31.3
<b>Other</b>													
TSS (mg/L)	60	0	N/A				4	7	9	11	17	29.6	71
<b>Nutrients (mg/L)</b>													
NH3 as N	60	10	N/A				0.02	0.02	0.02	0.06	0.11	0.18	0.24
NO2 + NO3 as N	60	1	N/A				0.01	0.07	0.17	0.26	0.43	0.52	0.65
TKN as N	60	0	N/A				0.1	0.3	0.56	0.7	0.87	1.19	2.24
Total Phosphorus	60	0	N/A				0.03	0.06	0.07	0.08	0.1	0.13	0.15
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	0	N/A				17	165	246	384	471	864	1420
Arsenic, total (As)	20	20	>10	0	0		1	5	10	10	10	10	10
Cadmium, total (Cd)	20	20	>5	0	0		1	2	2	2	2	2	2
Chromium, total (Cr)	20	19	>20	0	0		10	18	25	25	25	25	25
Copper, total (Cu)	20	10	>3	8	40	100	2	2	2	2	5	8	8
Iron, total (Fe)	20	0	N/A				174	305	351	459	533	1039	1950
Lead, total (Pb)	20	20	>25	0	0		3	6	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.025	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	18	>8.3	2	10	67.7	5	10	10	10	10	11	14
Zinc, total (Zn)	20	17	>86	0	0		5	10	10	10	10	13	56

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
60	24	1	2

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT CM 61 AT WILMINGTON  
**Station #:** B9800000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.19431 **Longitude:** -77.95679 **Stream class:** SC  
**Agency:** LCFRP **NC stream index:** 18-(71)  
**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<5	27	32.5	100	3	4	4.8	5.7	8.2	9.6	11.2
pH (SU)	83	0	<6.8	10	12	79.5	6.1	6.7	7	7.3	7.4	7.6	7.9
	83	0	>8.5	0	0		6.1	6.7	7	7.3	7.4	7.6	7.9
Spec. conductance (umhos/cm at 25°C)	83	2	N/A				100	466	5880	13529	20763	28436	39744
Water Temperature (°C)	83	0	>32	0	0		7	11.2	15.8	23.9	27.8	29.8	31.7
<b>Other</b>													
Chlorophyll a (ug/L)	26	2	>40	0	0		1	1	3	6	14	23	24
TSS (mg/L)	60	0	N/A				3	6	8	10	13.8	18	35
Turbidity (NTU)	60	0	>25	2	3.3		3.3	4.7	6	7.2	9.4	17	42.2
<b>Nutrients (mg/L)</b>													
NH3 as N	60	8	N/A				0.01	0.02	0.03	0.06	0.11	0.12	0.25
NO2 + NO3 as N	60	1	N/A				0.01	0.11	0.23	0.31	0.45	0.5	0.64
TKN as N	60	1	N/A				0.1	0.3	0.56	0.7	0.83	1.1	1.5
Total Phosphorus	60	0	N/A				0.02	0.05	0.07	0.09	0.1	0.12	0.24
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	32	0	0										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence



**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT CM 61 AT WILMINGTON  
**Station #:** B9800000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.19431 **Longitude:** -77.95679 **Stream class:** SC  
**Agency:** NCAMBNT **NC stream index:** 18-(71)  
**Time period:** 02/04/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	52	0	<5	14	26.9	100	3.5	4	4.8	6.4	8.1	9.7	10.7
pH (SU)	53	0	<6.8	9	17	96.5	5.8	6.5	6.9	7.1	7.3	7.5	7.7
	53	0	>8.5	0	0		5.8	6.5	6.9	7.1	7.3	7.5	7.7
Salinity (ppt)	51	0	N/A				0.02	0.6	3	6.2	11.4	19.68	25.62
Spec. conductance (umhos/cm at 25°C)	50	0	N/A				60	1119	5382	10337	19120	28076	40077
Water Temperature (°C)	54	0	>32	0	0		6	10	13.8	19.8	26.2	28.6	29.5
<b>Other</b>													
TSS (mg/L)	20	2	N/A				2.5	6.1	10.2	14	23	27.8	28
Turbidity (NTU)	55	0	>25	3	5.5		4.4	4.8	5.9	7.6	10	16	36
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				290	295	328	390	580	1185	1500
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	25	50	50
Cadmium, total (Cd)	14	14	>5	0	0		1	1.5	2	2	10	10	10
Chromium, total (Cr)	14	14	>20	0	0		10	10	25	25	25	38	50
Copper, total (Cu)	14	8	>3	4	28.6	99.1	2	2	2	3	10	10	11
Iron, total (Fe)	14	0	N/A				350	405	460	640	772	1350	1500
Lead, total (Pb)	14	13	>25	0	0		10	10	10	10	11	50	50
Mercury, total (Hg)	12	12	>0.025	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>8.3	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	10	>86	0	0		10	10	10	10	14	22	24

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
55	35	0	0

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT CM 56 NR WILMINGTON  
**Station #:** B9820000 **Hydrologic Unit Code:** 03030005  
**Latitude:** 34.14745 **Longitude:** -77.95263 **Stream class:** SC  
**Agency:** NCAMBNT **NC stream index:** 18-(71)  
**Time period:** 02/04/2004 to 12/16/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	52	0	<5	10	19.2	98.7	3.8	4.4	5.4	6.6	8.3	9.8	10.6
pH (SU)	53	0	<6.8	7	13.2	84.4	5.7	6.7	7	7.2	7.4	7.5	7.9
	53	0	>8.5	0	0		5.7	6.7	7	7.2	7.4	7.5	7.9
Salinity (ppt)	51	0	N/A				0.02	1.84	4.05	8.9	13.34	21.95	27.26
Spec. conductance (umhos/cm at 25°C)	50	0	N/A				62	3329	7267	14746	22150	31399	42244
Water Temperature (°C)	54	0	>32	0	0		6	10	13.9	19.8	26	28.4	29.7
<b>Other</b>													
Chlorophyll a (ug/L)	1	0	>40	0	0		21	21	21	21	21	21	21
TSS (mg/L)	20	1	N/A				2.5	4	8.2	13	23.2	27.8	62
Turbidity (NTU)	55	0	>25	2	3.6		3.9	4.6	5.8	7.3	11	16	37
<b>Nutrients (mg/L)</b>													
NH3 as N	55	5	N/A				0.02	0.03	0.05	0.1	0.12	0.16	0.22
NO2 + NO3 as N	55	0	N/A				0.17	0.22	0.27	0.35	0.42	0.49	0.62
TKN as N	55	1	N/A				0.2	0.41	0.52	0.59	0.68	0.73	0.83
Total Phosphorus	55	0	N/A				0.05	0.07	0.07	0.09	0.1	0.11	0.16
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	14	0	N/A				260	280	328	460	592	720	780
Arsenic, total (As)	14	14	>10	0	0		5	5	5	5	25	50	50
Cadmium, total (Cd)	14	14	>5	0	0		1	1.5	2	2	10	10	10
Chromium, total (Cr)	14	14	>20	0	0		10	10	25	25	25	38	50
Copper, total (Cu)	14	12	>3	1	7.1		2	2	2	2	3	10	10
Iron, total (Fe)	14	0	N/A				370	375	412	550	748	895	930
Lead, total (Pb)	14	14	>25	0	0		10	10	10	10	10	50	50
Mercury, total (Hg)	12	12	>0.025	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	14	14	>8.3	0	0		10	10	10	10	10	10	10
Zinc, total (Zn)	14	9	>86	0	0		10	10	10	10	16	20	21
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
55	27	0	0										

**Key:**

# result: number of observations  
 # ND: number of observations reported to be below detection level (non-detect)  
 EL: Evaluation Level; applicable numeric or narrative water quality standard or action level  
 Results not meeting EL: number and percentages of observations not meeting evaluation level  
 %Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)  
 Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT CM 42

**Station #:** B9845100

**Latitude:** 34.09017

**Longitude:** -77.93355

**Agency:** LCFRP

**Hydrologic Unit Code:** 03030005

**Stream class:** SC

**NC stream index:** 18-(71)

**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<5	8	9.6		3.6	4.9	5.7	6.9	8.3	9.8	11.4
pH (SU)	83	0	<6.8	3	3.6		6.6	7.1	7.5	7.6	7.8	7.9	8.1
	83	0	>8.5	0	0		6.6	7.1	7.5	7.6	7.8	7.9	8.1
Spec. conductance (umhos/cm at 25°C)	83	0	N/A				1157	3967	12744	20710	26867	36348	45444
Water Temperature (°C)	83	0	>32	0	0		7.4	11.8	15.6	24.2	28	29.3	31.1
<b>Other</b>													
TSS (mg/L)	60	0	N/A				5	6	8	10	15.8	20.9	27
<b>Nutrients (mg/L)</b>													
NH3 as N	60	10	N/A				0.01	0.02	0.02	0.05	0.08	0.12	0.14
NO2 + NO3 as N	60	3	N/A				0.01	0.05	0.14	0.22	0.35	0.45	0.56
TKN as N	60	1	N/A				0.1	0.2	0.48	0.61	0.89	1.1	6.2
Total Phosphorus	60	1	N/A				0.01	0.03	0.05	0.07	0.09	0.1	0.12

**Fecal Coliform Screening(#/100mL)**

<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400: %Conf:</b>
60	17	1	2

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT CM 35

**Station #:** B9850100

**Latitude:** 34.03348

**Longitude:** -77.93702

**Agency:** LCFRP

**Hydrologic Unit Code:** 03030005

**Stream class:** SC

**NC stream index:** 18-(71)

**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<5	6	7.2		4.1	5.3	6.1	7.1	8.5	9.7	11.3
pH (SU)	83	0	<6.8	0	0		6.9	7.4	7.6	7.8	7.9	8	8.2
	83	0	>8.5	0	0		6.9	7.4	7.6	7.8	7.9	8	8.2
Spec. conductance (umhos/cm at 25°C)	83	0	N/A				3269	9452	17644	27563	35738	42022	49443
Water Temperature (°C)	83	0	>32	0	0		7.5	11.8	15.4	24.6	27.8	29.5	31.2
<b>Other</b>													
TSS (mg/L)	60	0	N/A				4	5.1	7.2	9	12.8	18	22
<b>Nutrients (mg/L)</b>													
NH3 as N	60	12	N/A				0.01	0.01	0.02	0.04	0.06	0.1	0.12
NO2 + NO3 as N	60	4	N/A				0.01	0.03	0.07	0.19	0.3	0.41	0.46
TKN as N	60	2	N/A				0.1	0.2	0.3	0.53	0.7	0.84	1.8
Total Phosphorus	60	1	N/A				0.01	0.03	0.05	0.06	0.07	0.09	0.12
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	19	0	N/A				38	74	194	297	464	687	1600
Arsenic, total (As)	19	17	>10	2	10.5	70.5	1	10	10	10	10	14	15
Cadmium, total (Cd)	19	19	>5	0	0		1	2	2	2	2	2	2
Chromium, total (Cr)	19	19	>20	0	0		5	25	25	25	25	25	25
Copper, total (Cu)	19	10	>3	9	47.4	100	2	2	2	2	7	10	11
Iron, total (Fe)	19	0	N/A				225	229	285	315	491	940	1550
Lead, total (Pb)	19	19	>25	0	0		3	10	10	10	10	10	10
Mercury, total (Hg)	19	19	>0.025	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	19	15	>8.3	4	21.1	96.5	5	10	10	10	10	16	16
Zinc, total (Zn)	19	16	>86	0	0		10	10	10	10	10	15	17

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400: %Conf:
60	8	1	2

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT CM 23

**Station #:** B9910000

**Latitude:** 33.94560

**Longitude:** -77.96958

**Agency:** LCFRP

**Hydrologic Unit Code:** 03030005

**Stream class:** SA HQW

**NC stream index:** 18-(87.5)

**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	82	0	<5	1	1.2		4.8	5.7	6.2	7	8.4	9.8	11.2
pH (SU)	82	0	<6.8	0	0		7.3	7.7	7.8	7.9	8	8.1	8.2
	82	0	>8.5	0	0		7.3	7.7	7.8	7.9	8	8.1	8.2
Spec. conductance (umhos/cm at 25°C)	82	0	N/A				11570	20692	30681	38600	44985	49356	53112
Water Temperature (°C)	82	0	>32	0	0		7.5	11.8	15.3	24.8	27.8	29.3	30.5
<b>Other</b>													
TSS (mg/L)	60	0	N/A				4	6	7	9	13	20	38
<b>Nutrients (mg/L)</b>													
NH3 as N	60	18	N/A				0.01	0.01	0.01	0.02	0.04	0.06	0.13
NO2 + NO3 as N	60	11	N/A				0.01	0.02	0.04	0.11	0.22	0.28	0.46
TKN as N	60	1	N/A				0.1	0.2	0.3	0.44	0.69	0.98	2.2
Total Phosphorus	60	13	N/A				0.01	0.01	0.02	0.04	0.05	0.07	0.31
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	19	0	N/A				41	110	182	268	405	738	1050
Arsenic, total (As)	19	15	>10	4	21.1	96.5	1	10	10	10	10	22	24
Cadmium, total (Cd)	19	19	>5	0	0		1	2	2	2	2	2	2
Chromium, total (Cr)	19	19	>20	0	0		5	25	25	25	25	25	25
Copper, total (Cu)	19	9	>3	10	52.6	100	2	2	2	4	9	14	71
Iron, total (Fe)	19	0	N/A				204	241	262	294	410	510	573
Lead, total (Pb)	19	19	>25	0	0		3	10	10	10	10	10	10
Mercury, total (Hg)	19	19	>0.025	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	19	12	>8.3	7	36.8	100	5	10	10	10	13	18	20
Zinc, total (Zn)	19	14	>86	0	0		8	10	10	10	10	13	14

**Fecal Coliform Screening(#/100mL)**

# results:	Geomean	# > 400:	% > 400:	%Conf:	Median	# > 43	% > 43	%Conf
60	4	0	0		4	2	3	

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** CAPE FEAR RIV AT CM 18

**Station #:** B9921000

**Latitude:** 33.91131

**Longitude:** -78.01658

**Agency:** LCFRP

**Hydrologic Unit Code:** 03030005

**Stream class:** SC

**NC stream index:** 18-88-3.5

**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<5	0	0		5.2	5.8	6.3	7	8.4	9.7	11
pH (SU)	83	0	<6.8	0	0		7.5	7.7	7.9	8	8	8.1	8.2
	83	0	>8.5	0	0		7.5	7.7	7.9	8	8	8.1	8.2
Spec. conductance (umhos/cm at 25°C)	83	0	N/A				15888	27719	37891	45652	49249	52502	53735
Water Temperature (°C)	83	0	>32	0	0		7.5	11.6	15.4	24.5	27.7	28.9	31.2
<b>Other</b>													
Chlorophyll a (ug/L)	25	0	>40	0	0		2	2	4	6	8	11	14
TSS (mg/L)	60	0	N/A				4	6	8	12	16	26.9	49
Turbidity (NTU)	59	0	>25	1	1.7		1.8	2.9	3.7	5.4	8.9	13.2	59
<b>Nutrients (mg/L)</b>													
NH3 as N	60	31	N/A				0.01	0.01	0.01	0.02	0.03	0.05	0.17
NO2 + NO3 as N	60	22	N/A				0.01	0.02	0.02	0.04	0.11	0.17	1.72
TKN as N	60	4	N/A				0.1	0.1	0.2	0.33	0.56	0.69	1.63
Total Phosphorus	60	14	N/A				0.01	0.01	0.02	0.03	0.05	0.06	0.12
<b>Metals (ug/L)</b>													
Aluminum, total (Al)	20	2	N/A				5	17	143	188	357	709	908
Arsenic, total (As)	20	15	>10	5	25	98.9	1	8	10	10	12	21	34
Cadmium, total (Cd)	20	20	>5	0	0		1	2	2	2	2	2	2
Chromium, total (Cr)	20	20	>20	0	0		5	21	25	25	25	25	25
Copper, total (Cu)	20	10	>3	10	50	100	2	2	2	4	9	15	86
Iron, total (Fe)	20	0	N/A				46	92	242	340	390	442	498
Lead, total (Pb)	20	20	>25	0	0		3	4	10	10	10	10	10
Mercury, total (Hg)	20	20	>0.025	0	0		0.2	0.2	0.2	0.2	0.2	0.2	0.2
Nickel, total (Ni)	20	12	>8.3	8	40	100	5	10	10	10	16	22	24
Zinc, total (Zn)	20	15	>86	1	5		9	10	10	10	10	16	133
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>									
60	4	0	0										

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Ambient Monitoring System Station Summaries**  
 NCDENR, Division of Water Quality  
 Basinwide Assessment Report

**Location:** ICW NR SOUTHPORT

**Station #:** B9980000

**Latitude:** 33.91732

**Longitude:** -78.03794

**Agency:** LCFRP

**Hydrologic Unit Code:** 03030005

**Stream class:** SA HQW

**NC stream index:** 18-88-9

**Time period:** 01/06/2004 to 12/09/2008

	# results	# ND	EL	Results not meeting EL			Percentiles						
				#	%	%Conf	Min	10th	25th	50th	75th	90th	Max
<b>Field</b>													
D.O. (mg/L)	83	0	<5	8	9.6		4.5	5	5.7	6.7	8.1	9.5	11.4
pH (SU)	83	0	<6.8	0	0		7	7.3	7.6	7.7	7.9	8	8.4
	83	0	>8.5	0	0		7	7.3	7.6	7.7	7.9	8	8.4
Spec. conductance (umhos/cm at 25°C)	83	0	N/A				21702	30253	37062	43084	47184	50303	53502
Water Temperature (°C)	83	0	>32	1	1.2		7.5	11.8	15.4	24.6	28	29.6	33.9
<b>Other</b>													
TSS (mg/L)	60	0	N/A				6	8	10.2	15.5	23	27	55
<b>Nutrients (mg/L)</b>													
NH3 as N	59	20	N/A				0.01	0.01	0.01	0.02	0.03	0.06	0.21
NO2 + NO3 as N	60	19	N/A				0.01	0.01	0.02	0.05	0.1	0.16	0.56
TKN as N	60	2	N/A				0.1	0.2	0.21	0.4	0.65	0.84	5.27
Total Phosphorus	59	12	N/A				0.01	0.01	0.02	0.04	0.05	0.08	0.13
<b>Fecal Coliform Screening(#/100mL)</b>													
<b># results:</b>	<b>Geomean</b>	<b># &gt; 400:</b>	<b>% &gt; 400:</b>	<b>%Conf:</b>			<b>Median</b>	<b># &gt; 43</b>	<b>% &gt; 43</b>	<b>%Conf</b>			
60	6	0	0				6	3	5				

**Key:**

# result: number of observations

# ND: number of observations reported to be below detection level (non-detect)

EL: Evaluation Level; applicable numeric or narrative water quality standard or action level

Results not meeting EL: number and percentages of observations not meeting evaluation level

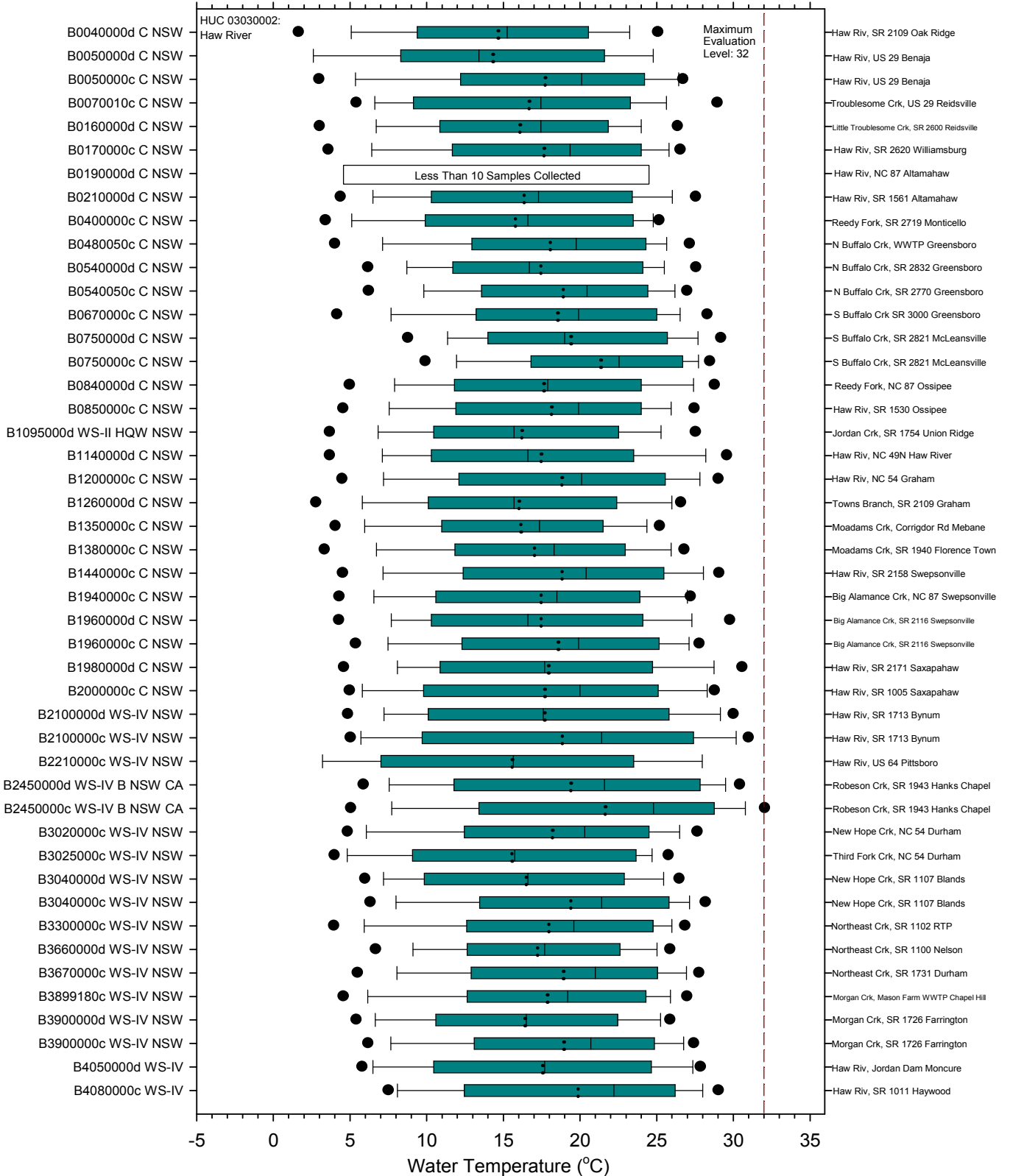
%Conf : States the percent statistical confidence that the actual percentage of exceedances is at least 10% (20% for Fecal Coliform)

Stations with less than 10 results for a given parameter were not evaluated for statistical confidence

**Appendix B: Station Box & Whisker Plots**



**Figure 15. Box Plots of Temperature in HUC 03030002 of the Cape Fear River Basin**



**Figure 16. Box Plots of Dissolved Oxygen in HUC 03030002 of the Cape Fear River Basin**

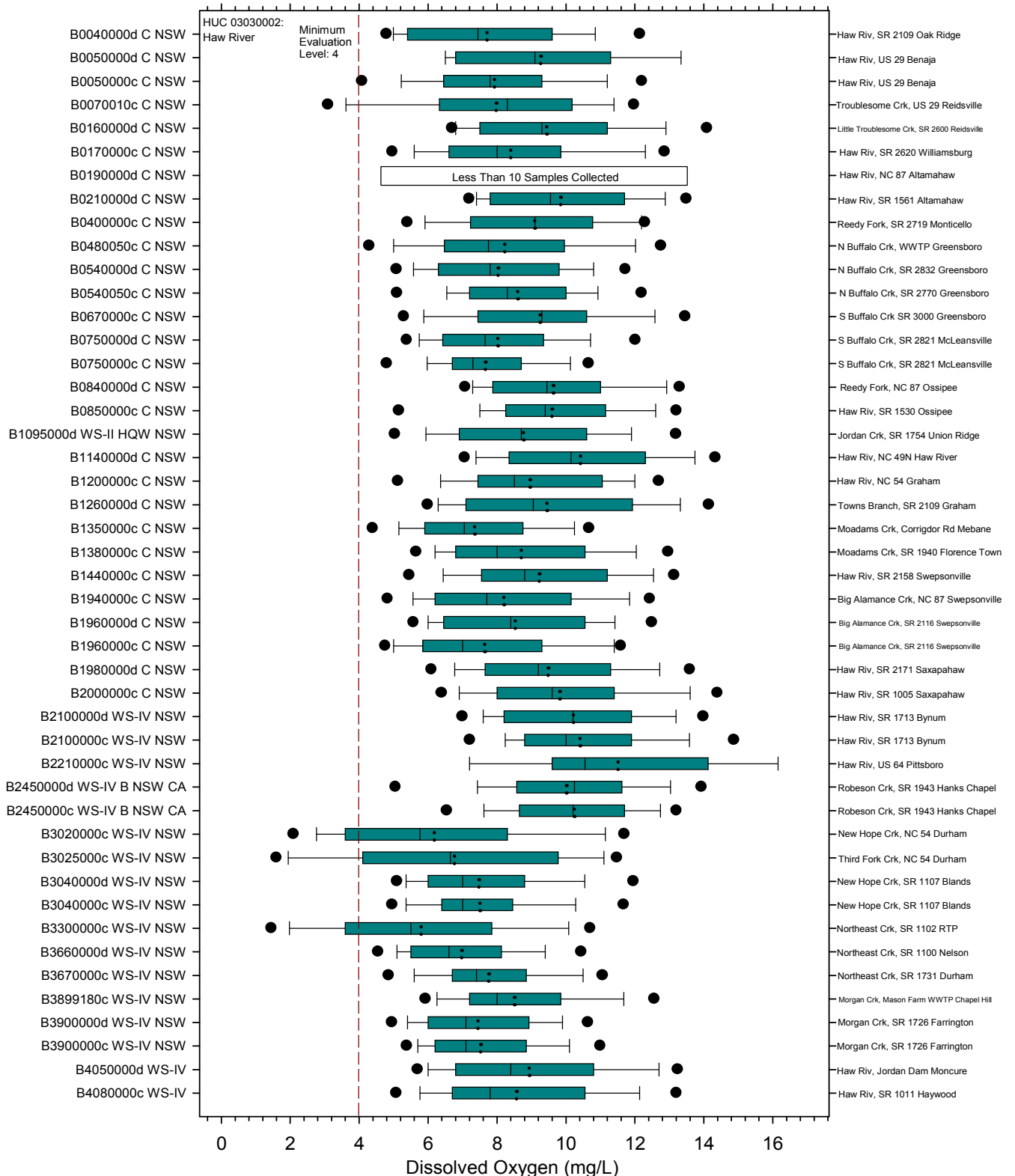
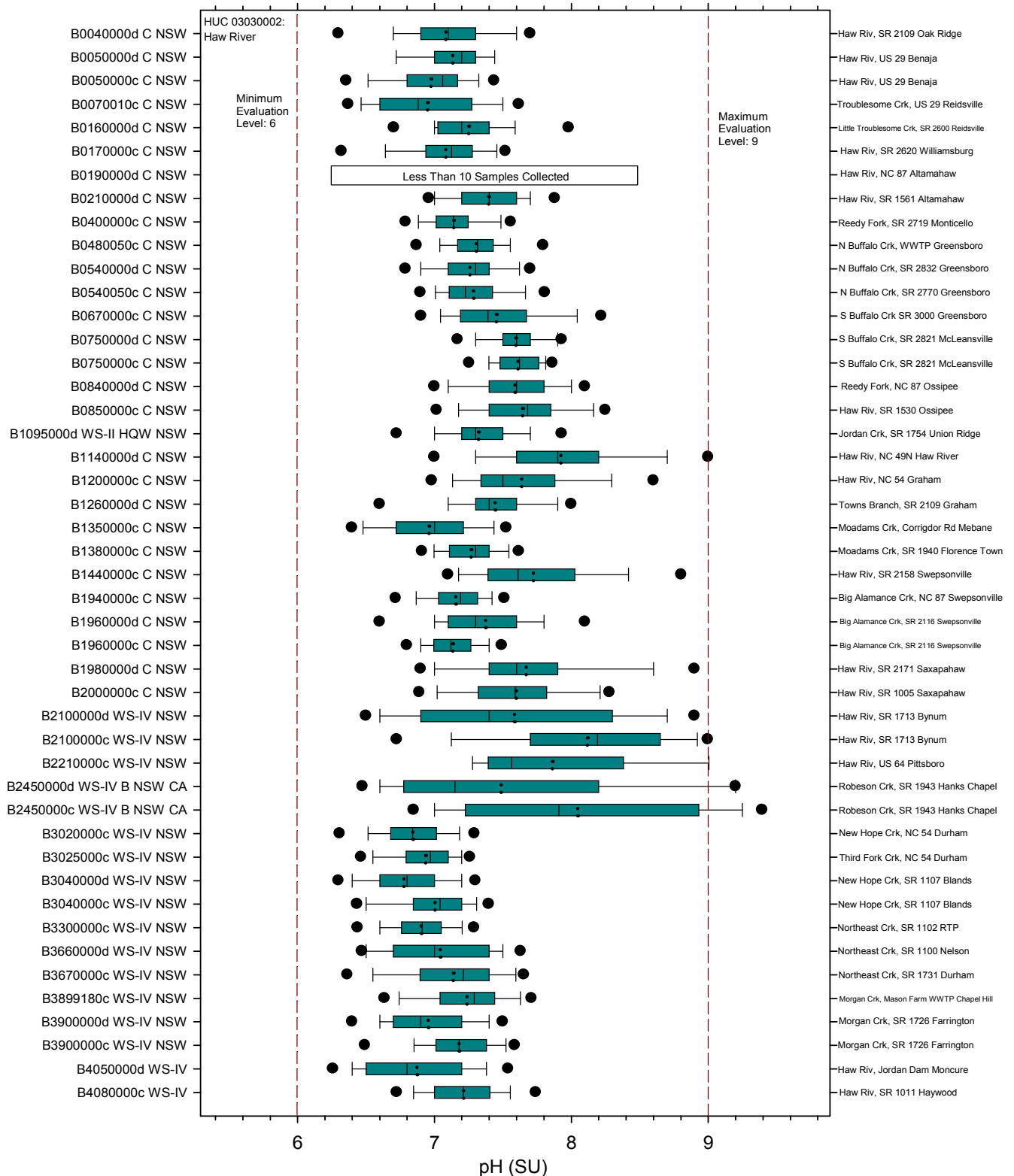
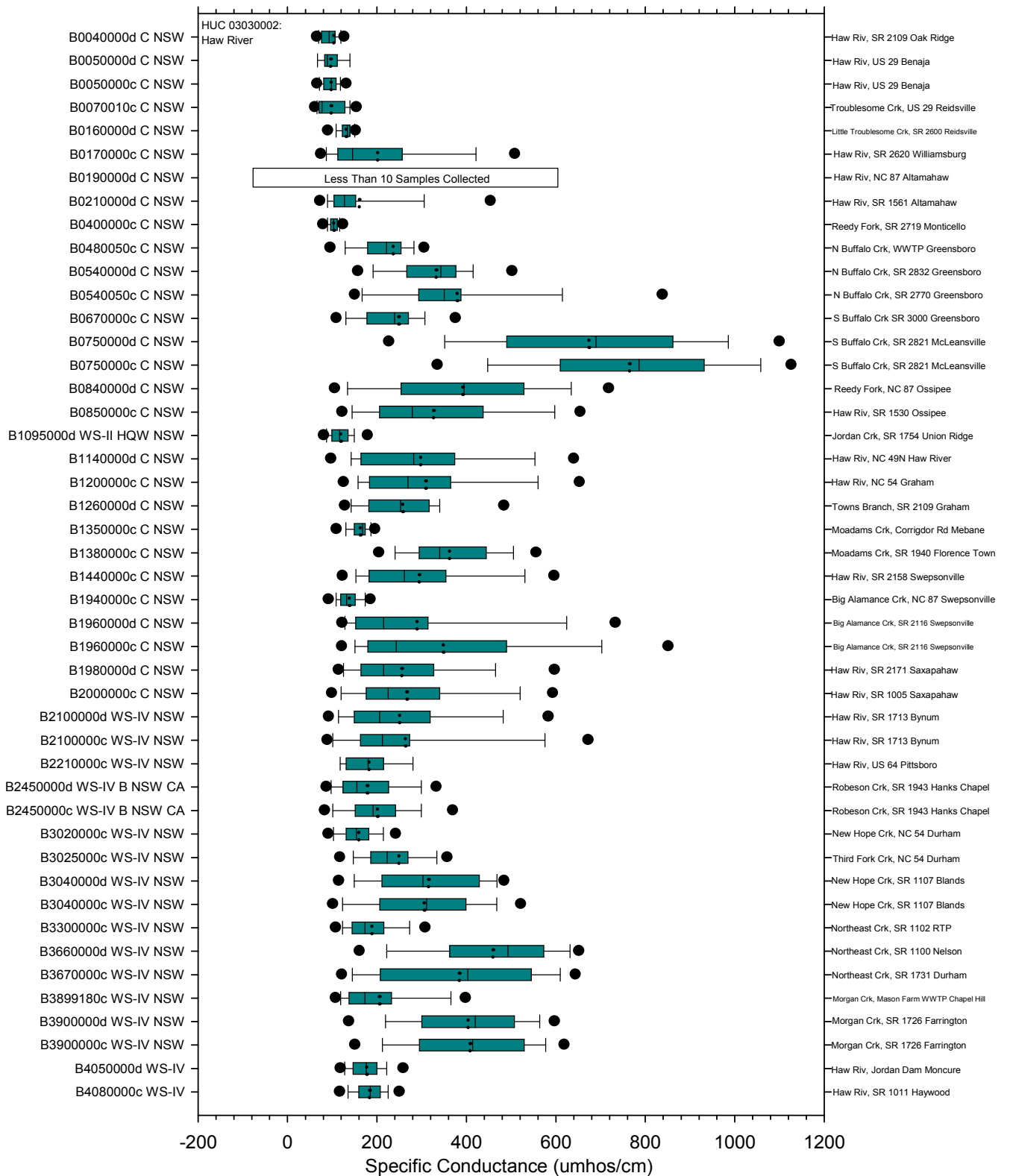


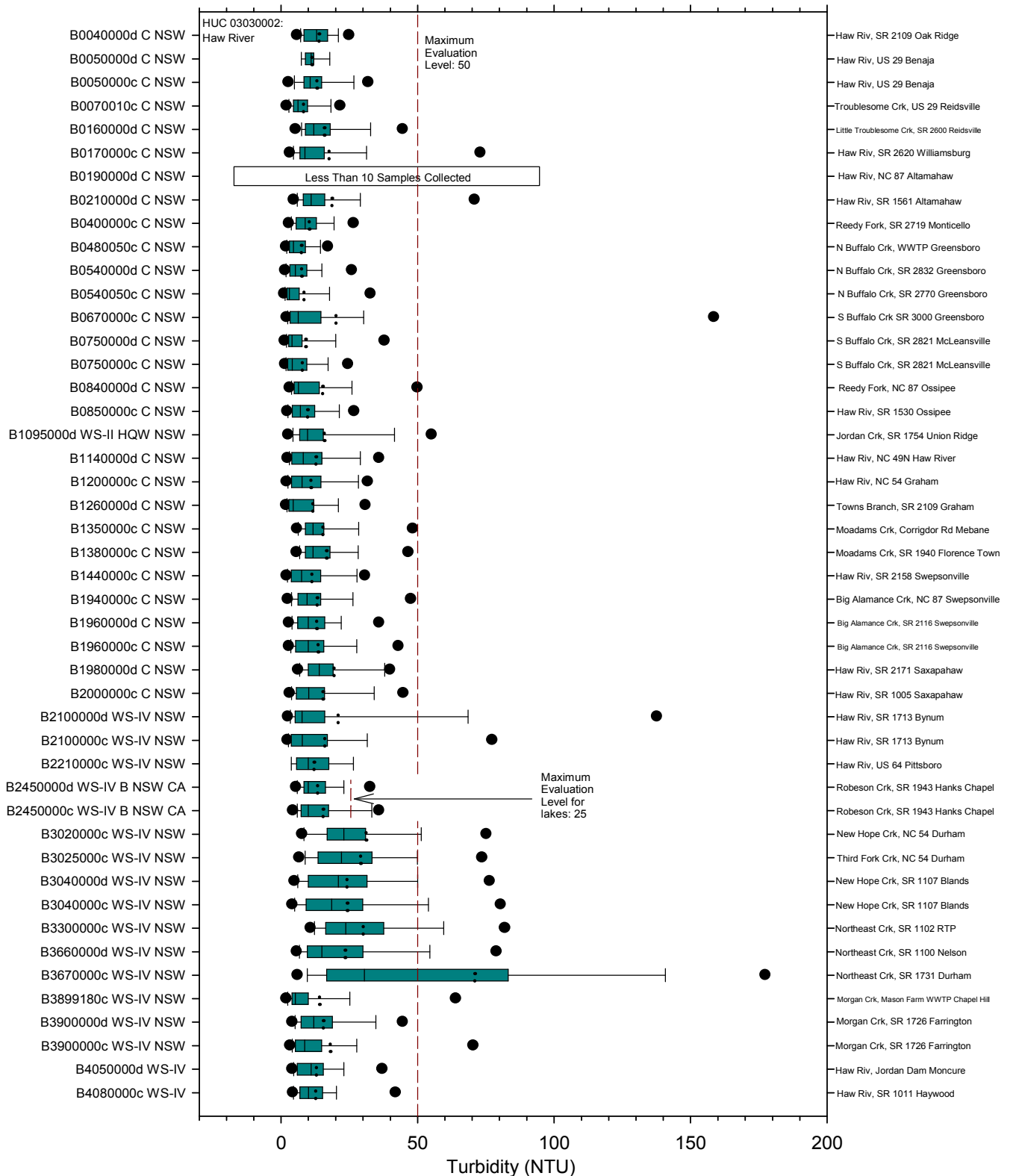
Figure 17. Box Plots of pH in HUC 03030002 of the Cape Fear River Basin



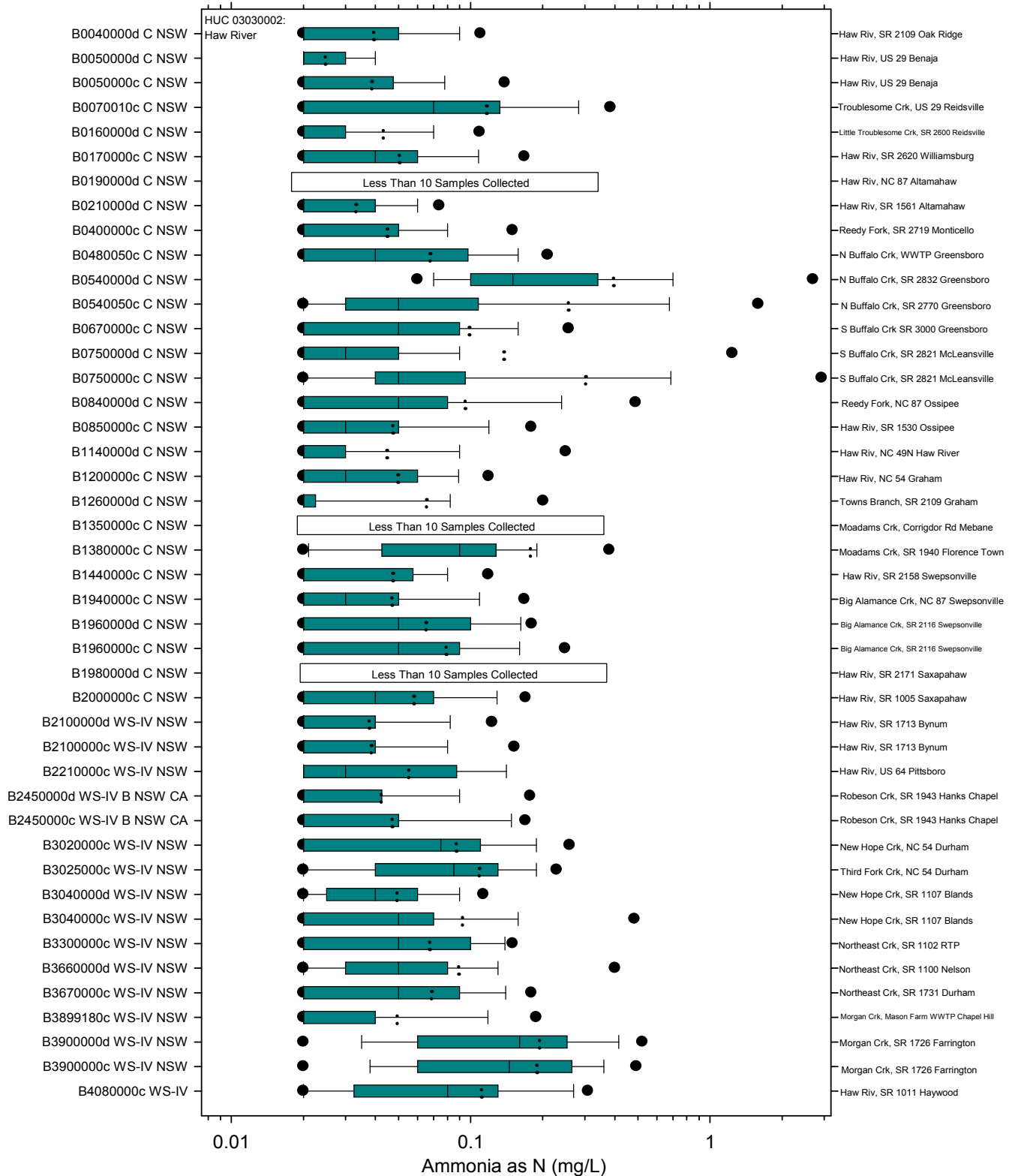
**Figure 18. Box Plots of Specific Conductance in HUC 03030002 of the Cape Fear River Basin**



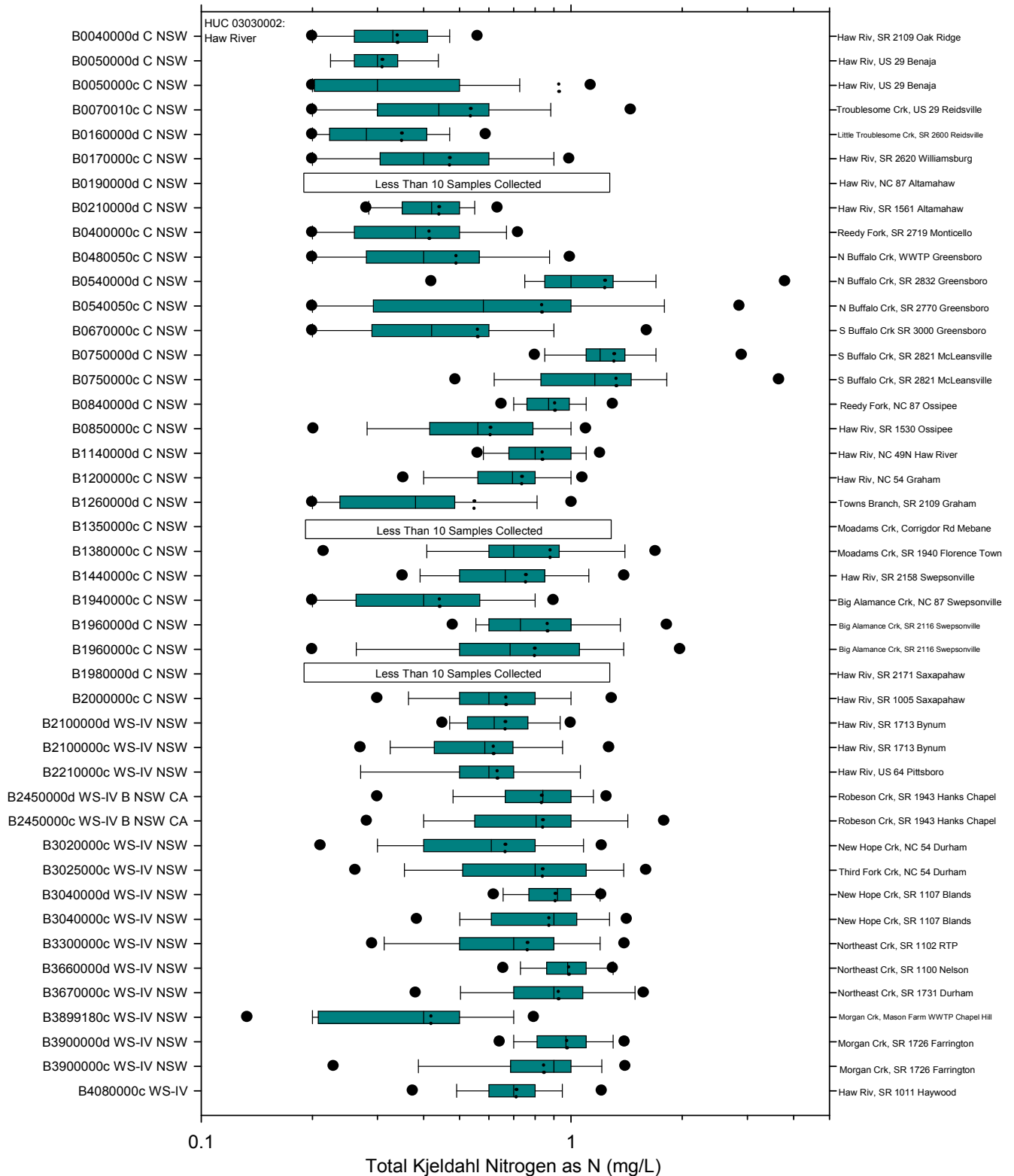
**Figure 19. Box Plots of Turbidity in HUC 03030002 of the Cape Fear River Basin**



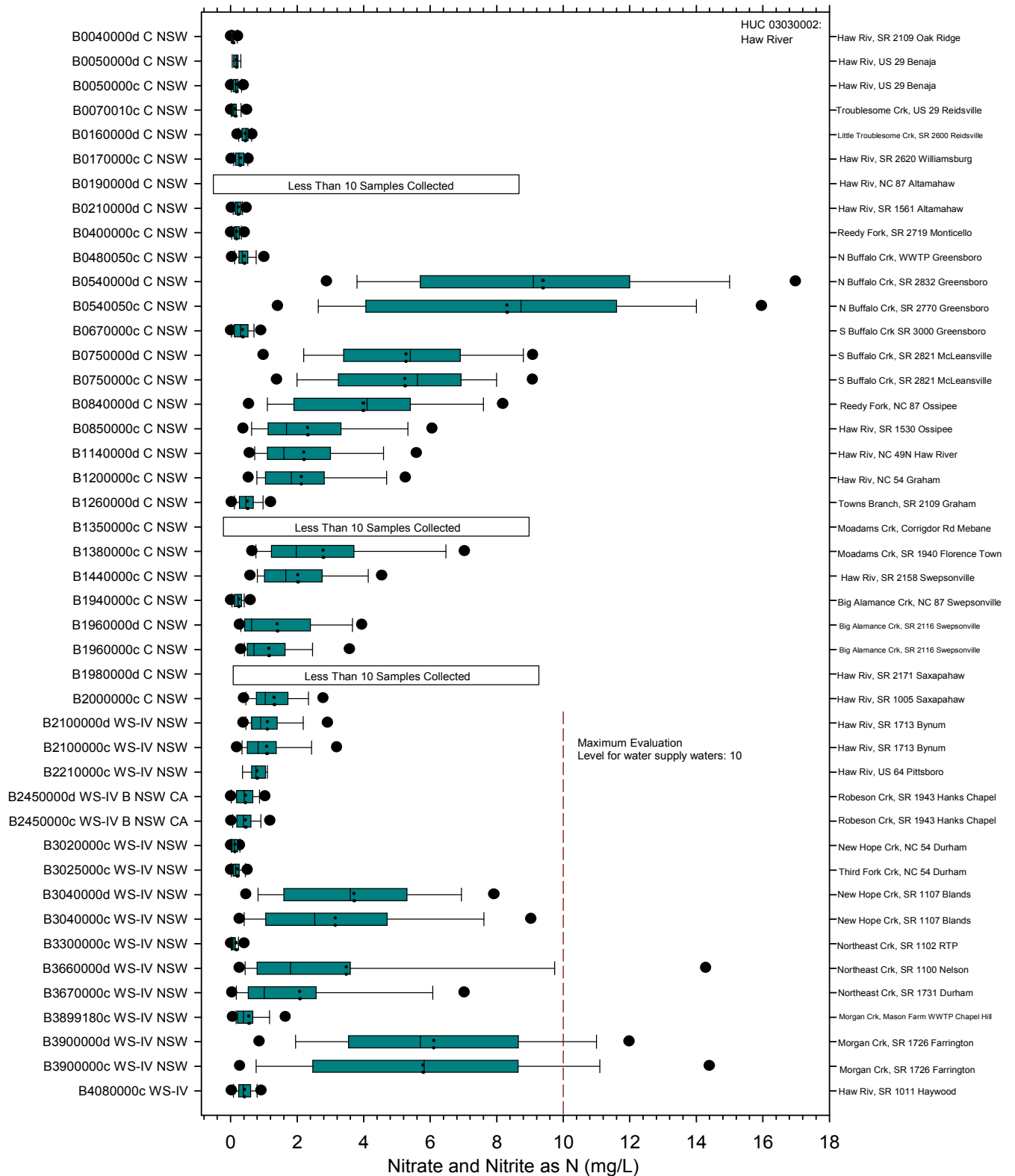
**Figure 20. Box Plots of Ammonia as Nitrogen in HUC 03030002 in the Cape Fear River Basin**



**Figure 21. Box Plots of Total Kjeldahl Nitrogen in HUC 03030002 in the Cape Fear River Basin**

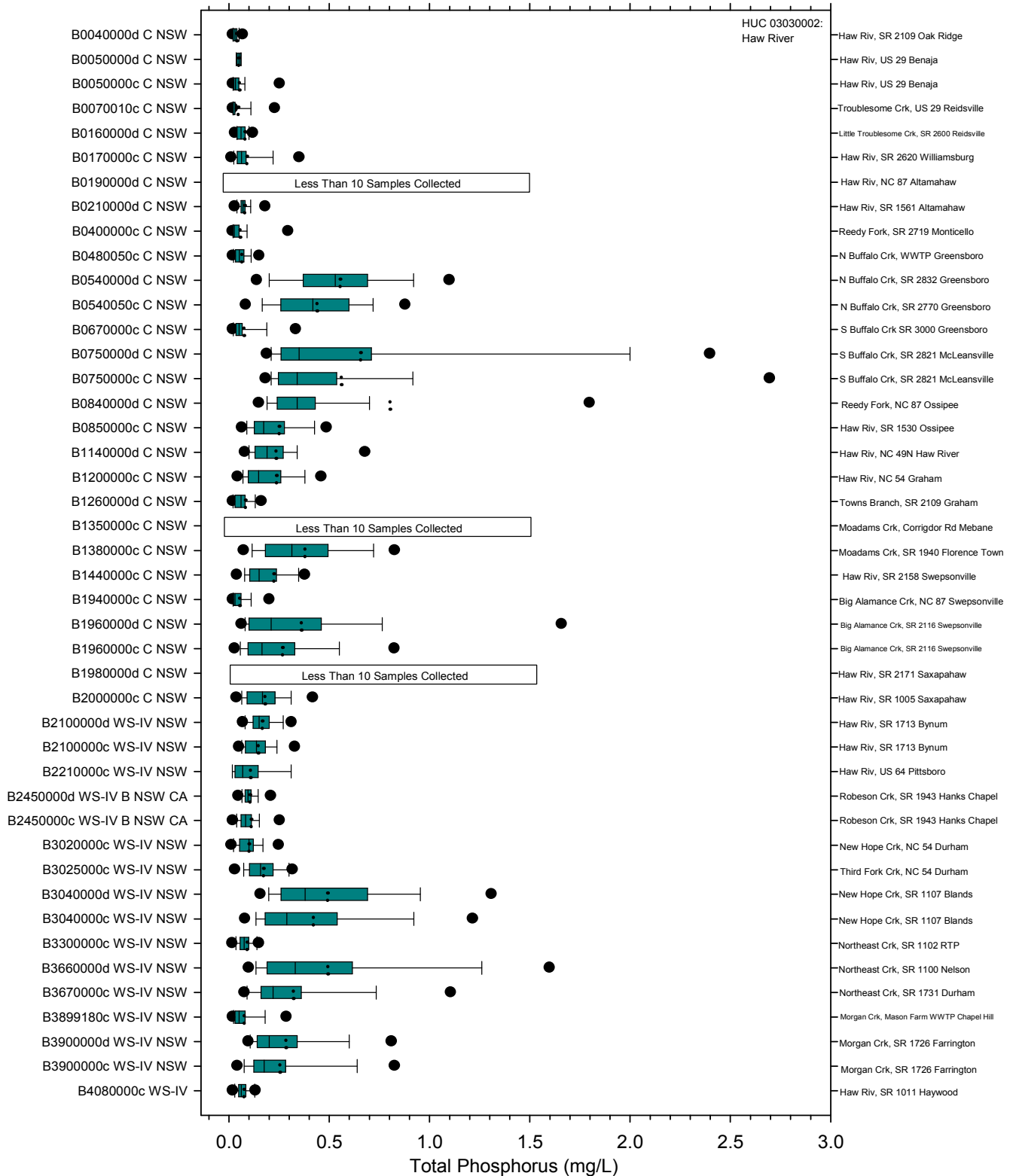


**Figure 22. Box Plots of Total Nitrate & Nitrite as Nitrogen in HUC 03030002 in the Cape Fear River Basin**

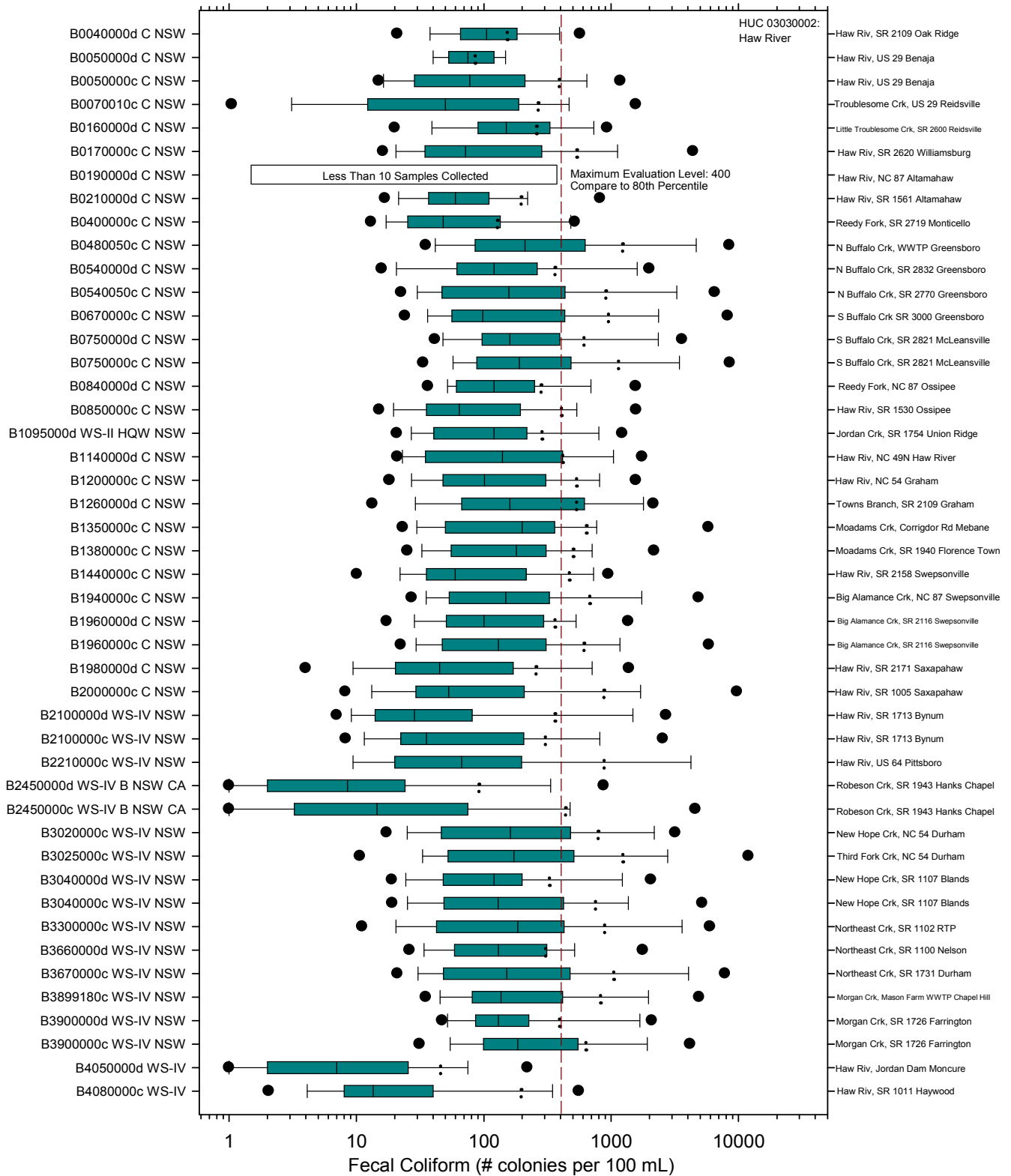




**Figure 23. Box Plots of Total Phosphorus in HUC 03030002 in the Cape Fear River Basin**



**Figure 24. Box Plots of Fecal Coliform in HUC 03030002 in the Cape Fear River Basin**



**Figure 25. Box Plots of Temperature in HUC 03030003 in the Cape Fear River Basin**



**Figure 26. Box Plots of Dissolved Oxygen in HUC 03030003 in the Cape Fear River Basin**

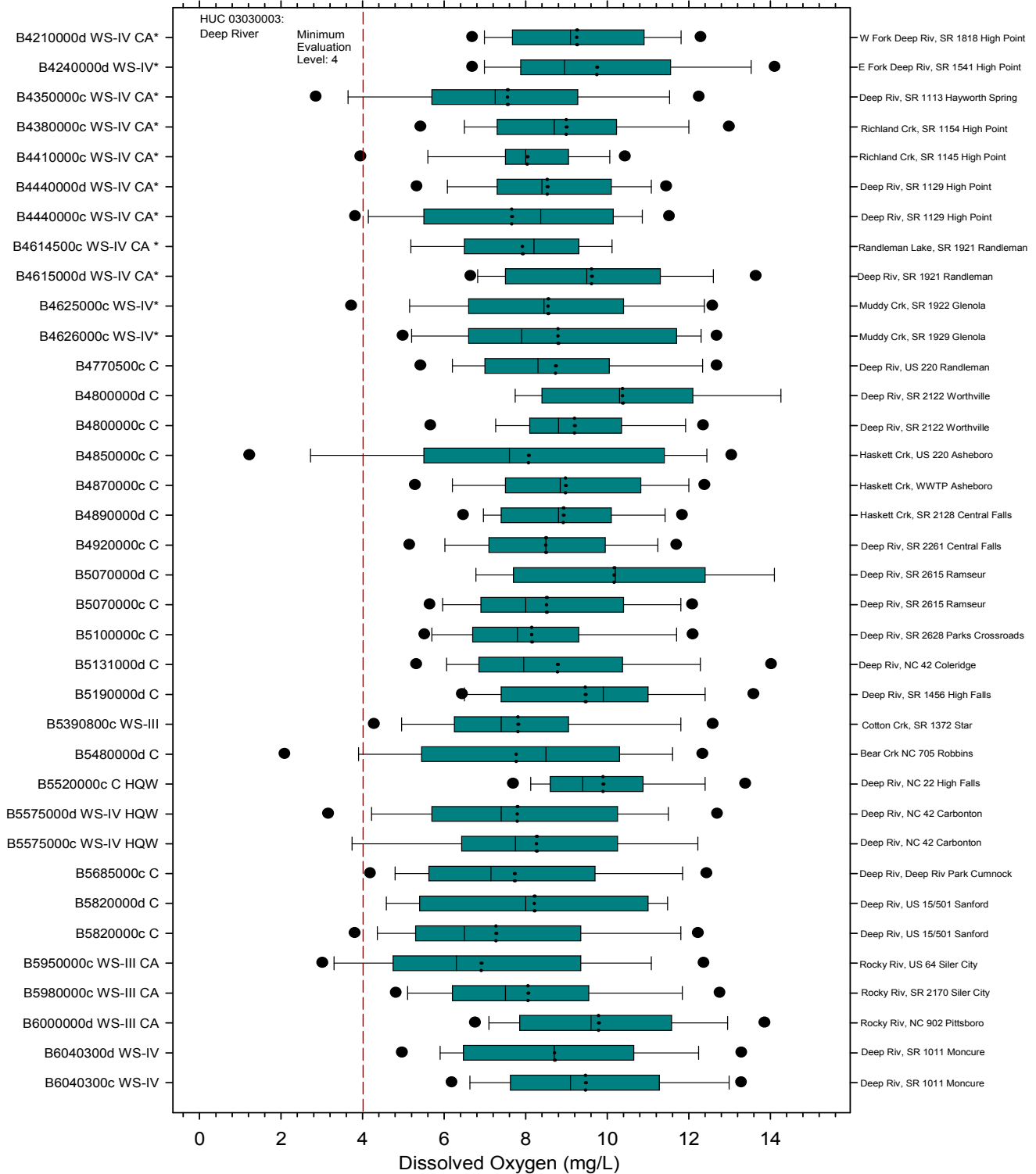
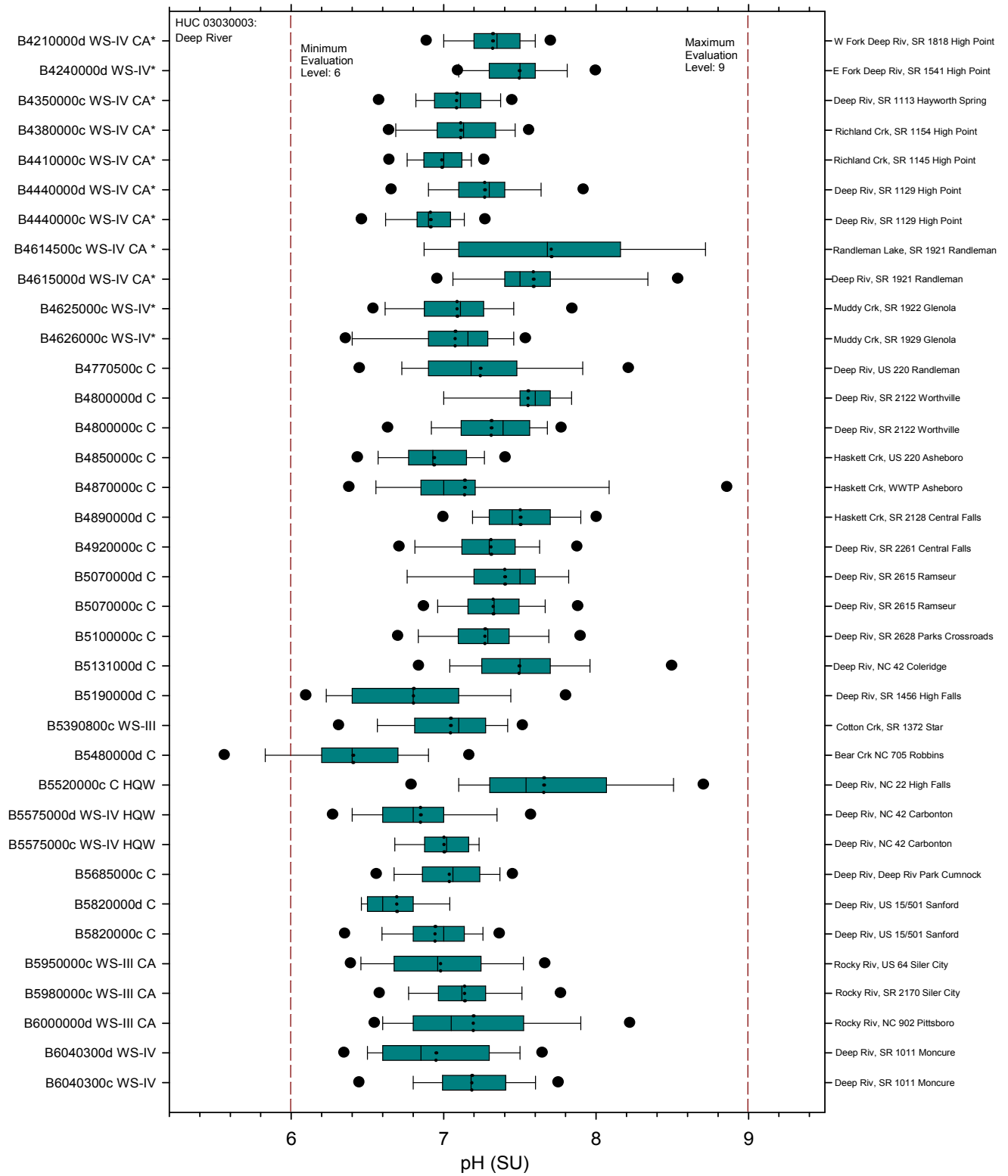
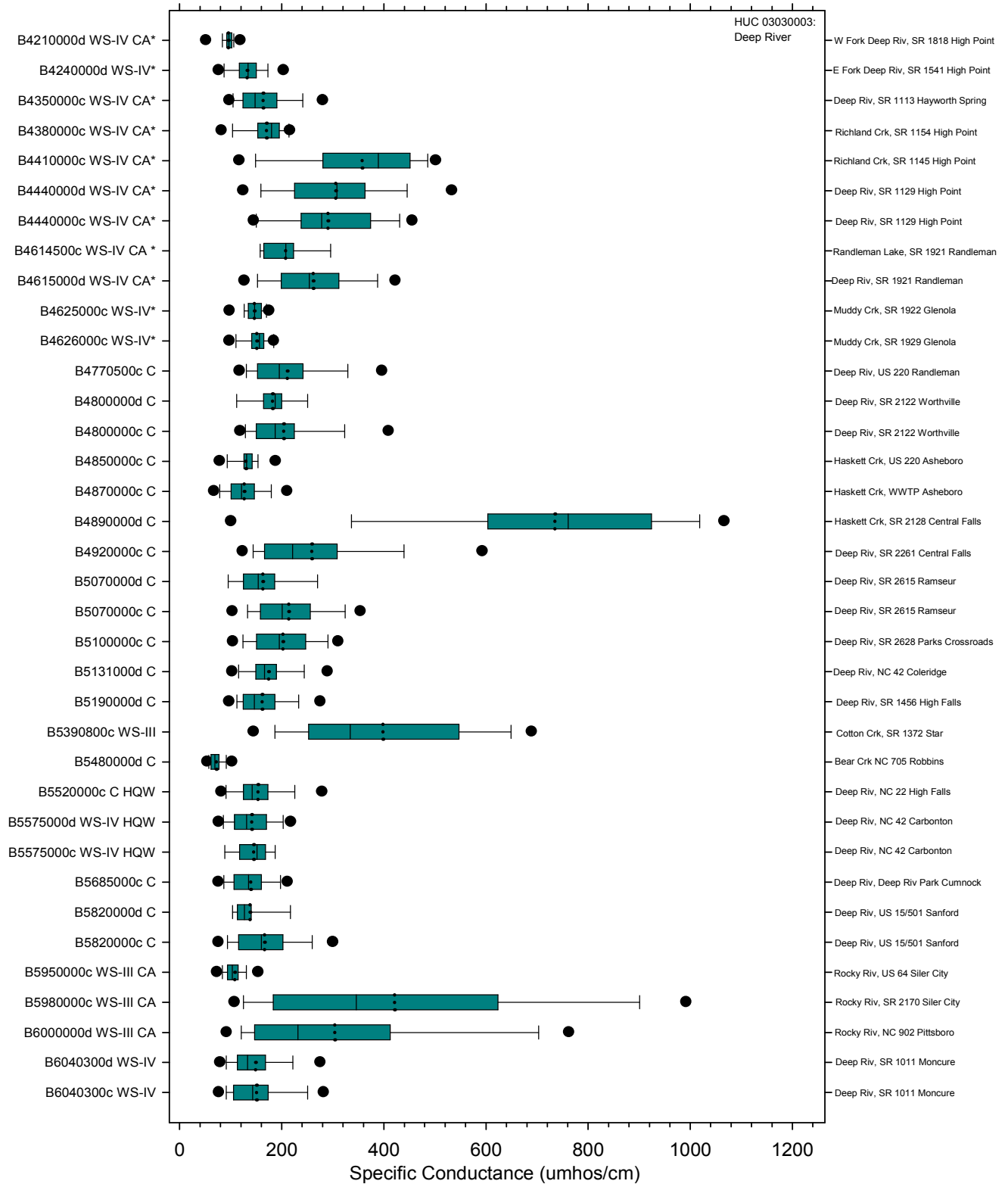


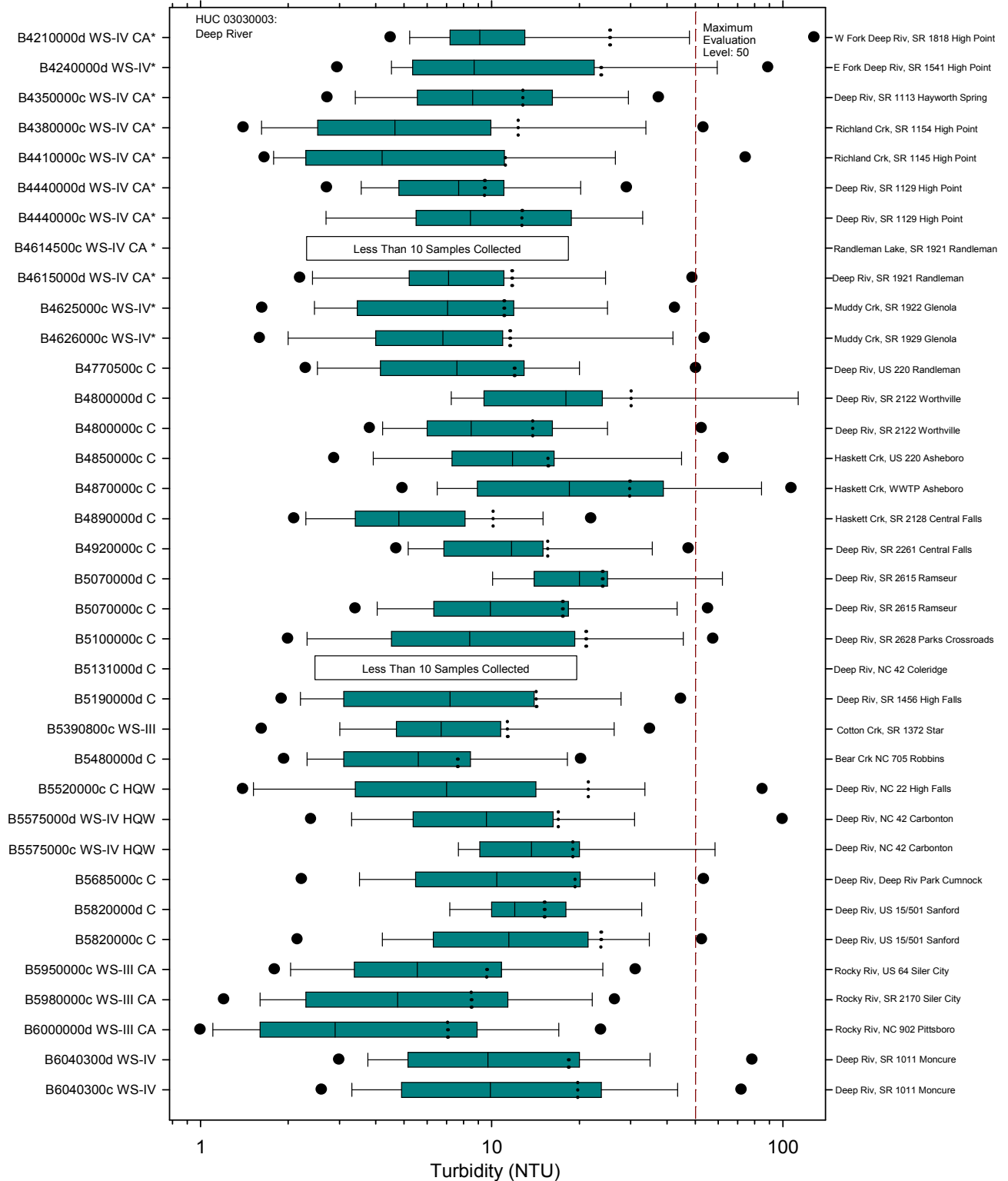
Figure 27. Box Plots of pH in HUC 03030003 in the Cape Fear River Basin



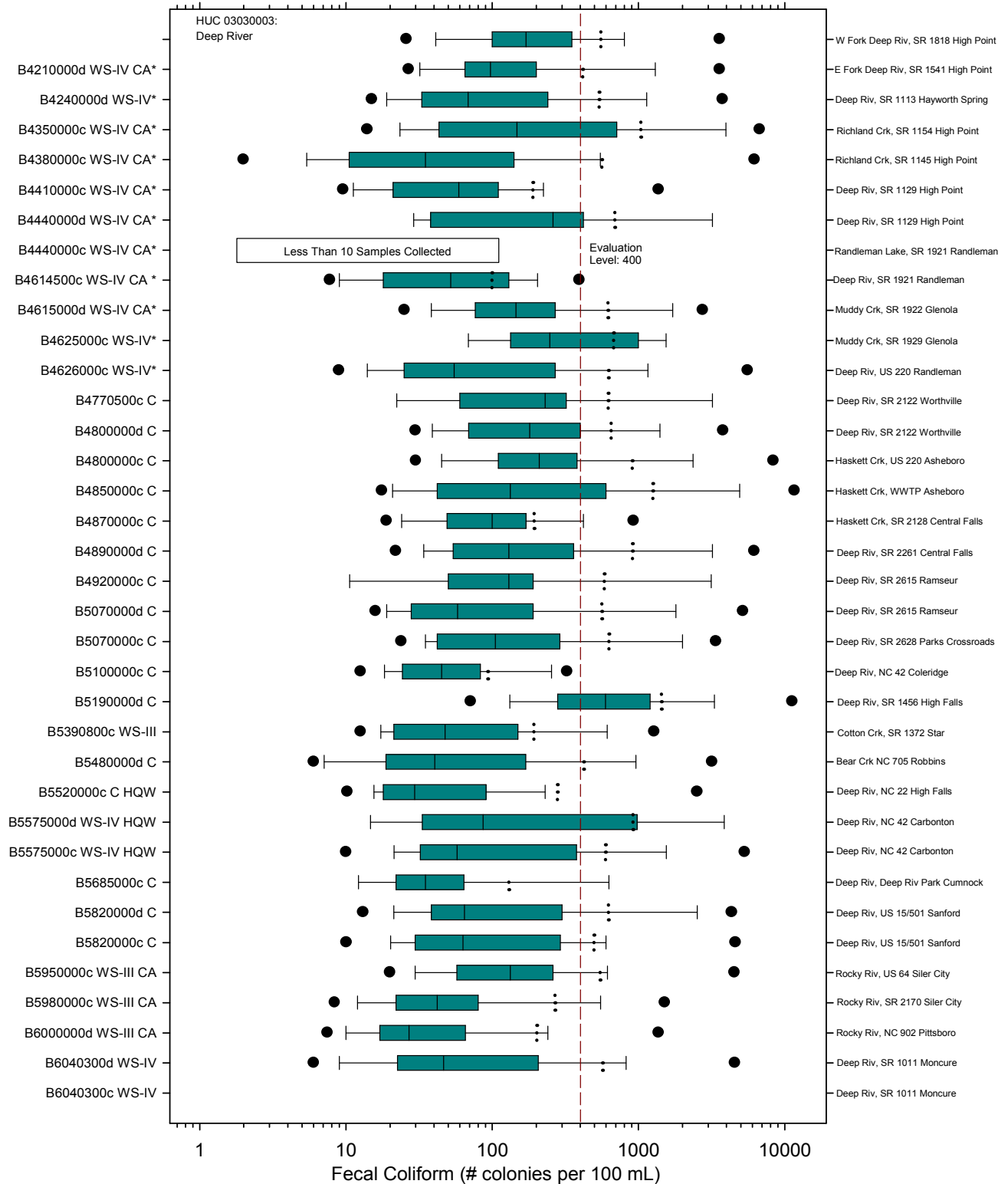
**Figure 28. Box Plots of Specific Conductance in HUC 03030003 in the Cape Fear River Basin**



**Figure 29. Box Plots of Turbidity in HUC 03030003 in the Cape Fear River Basin**

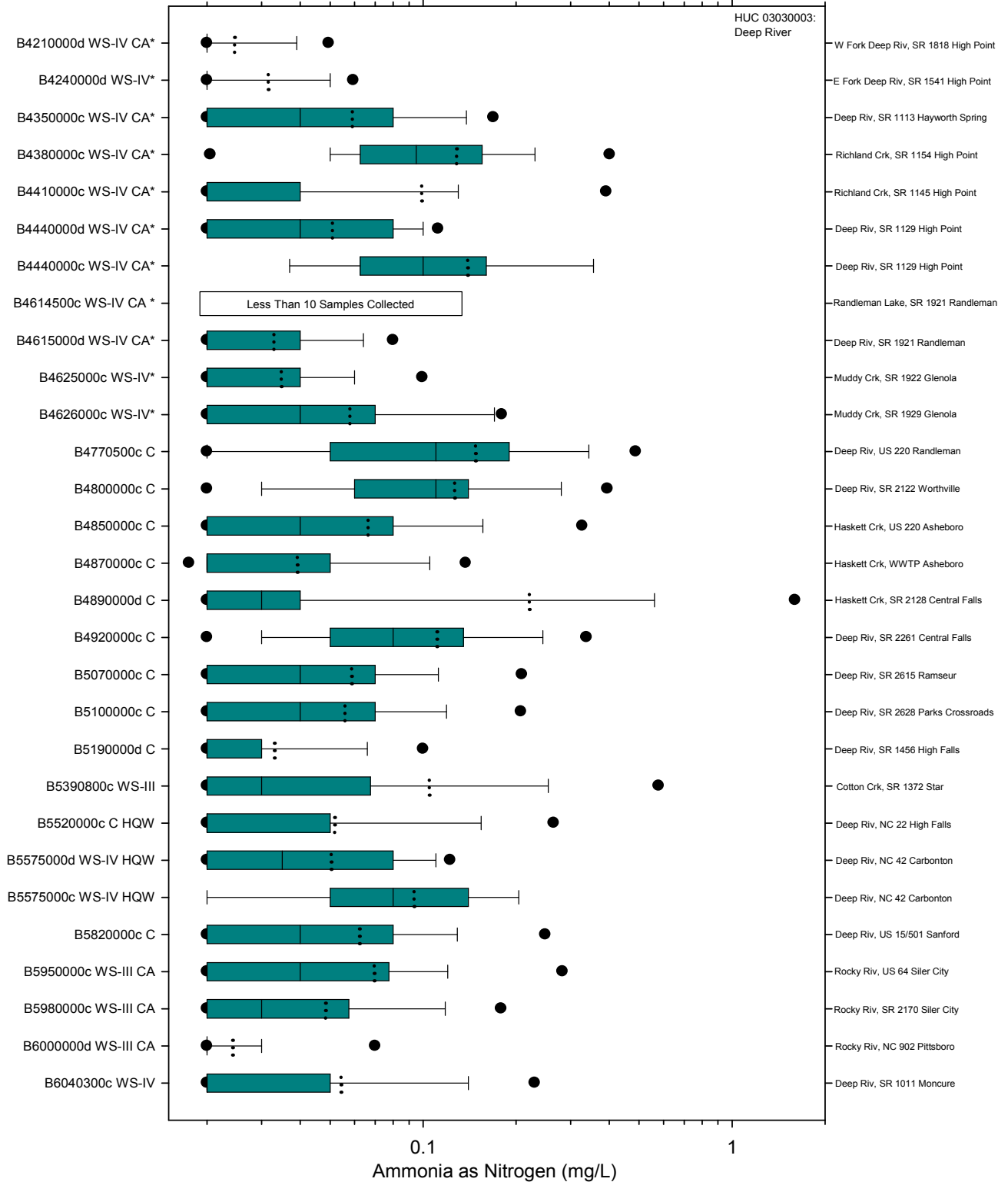


**Figure 30. Box Plots of Fecal Coliform in HUC 03030003 in the Cape Fear River Basin**

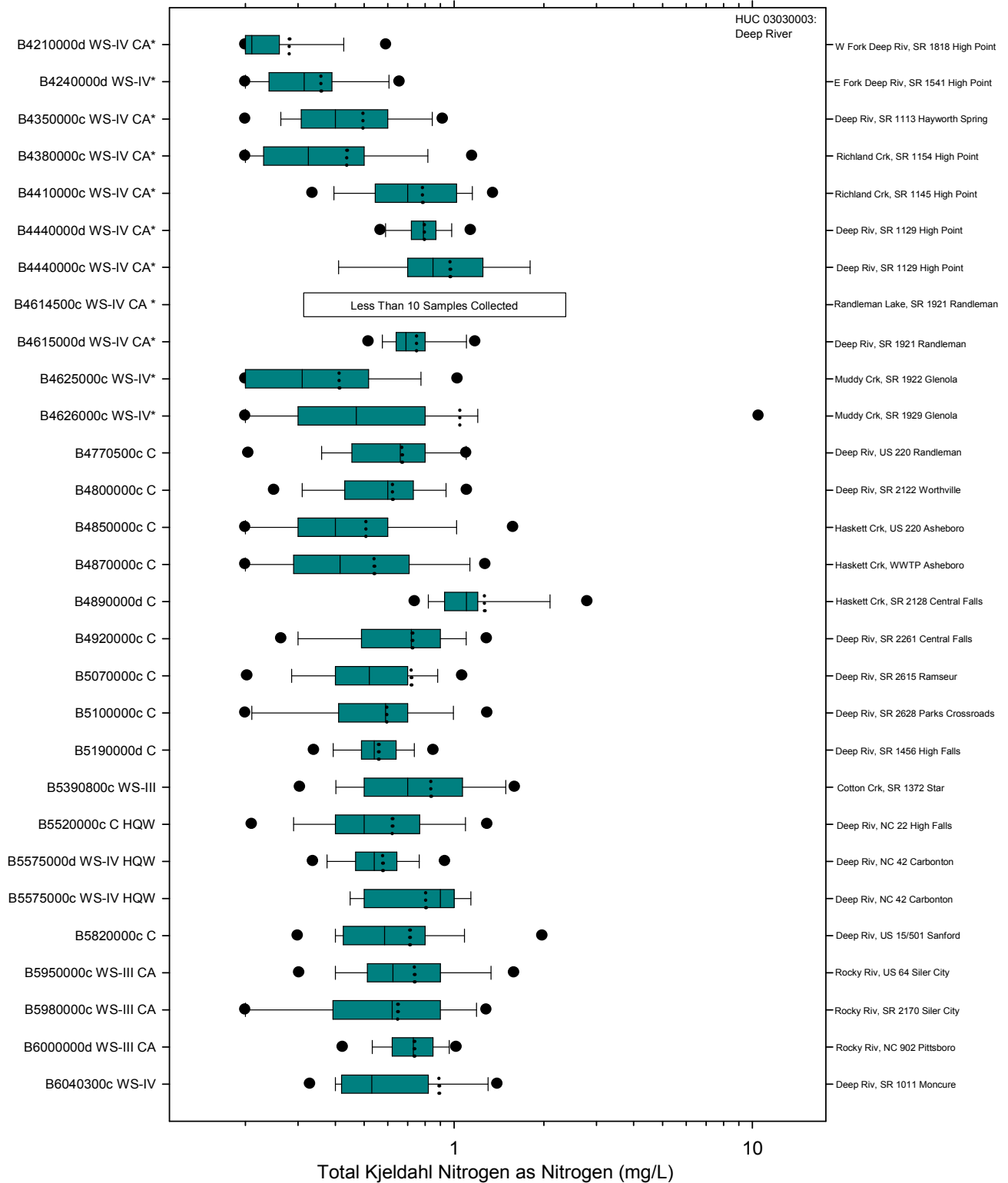




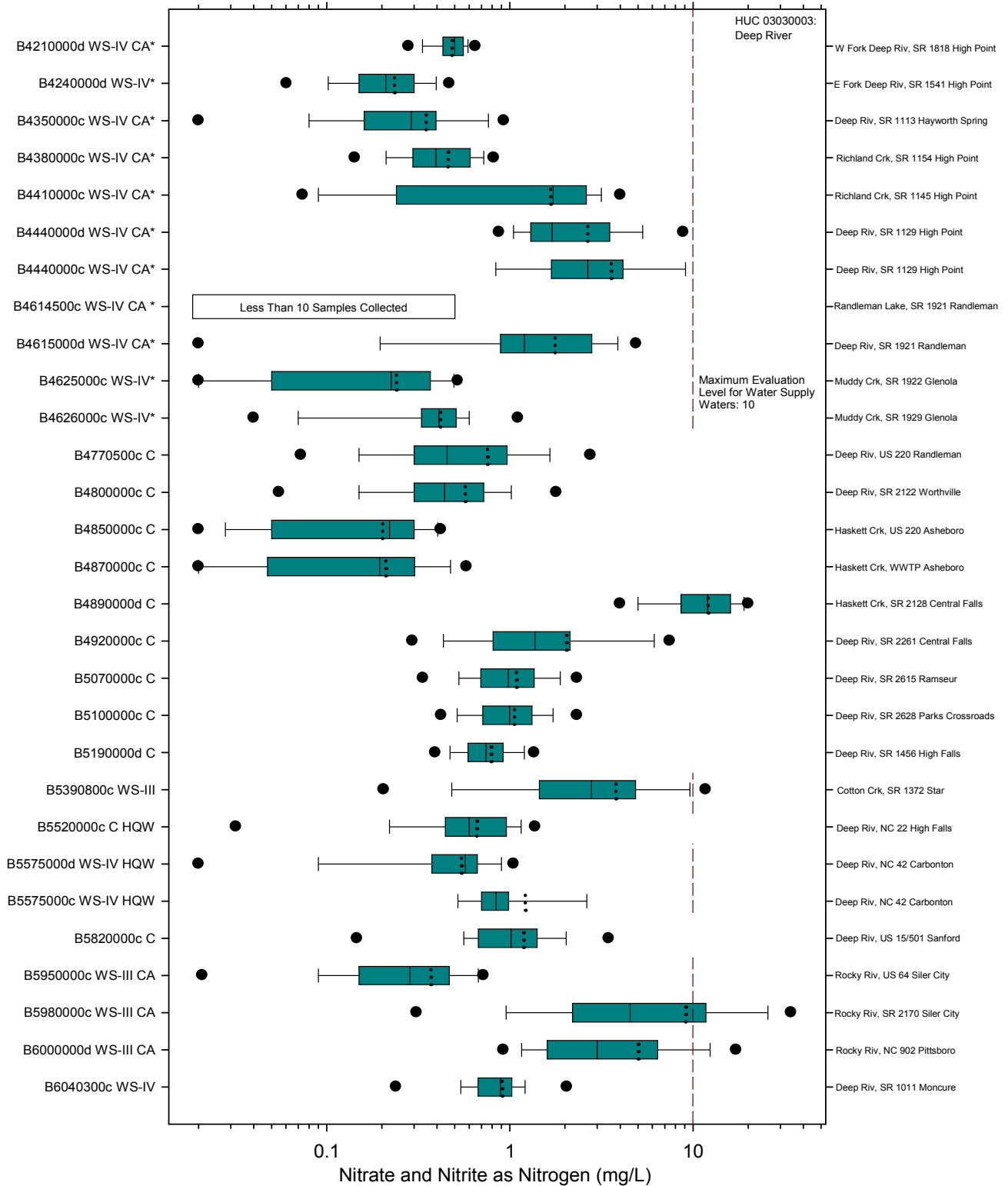
**Figure 31. Box Plots of Ammonia as Nitrogen in HUC 03030003 in the Cape Fear River Basin**



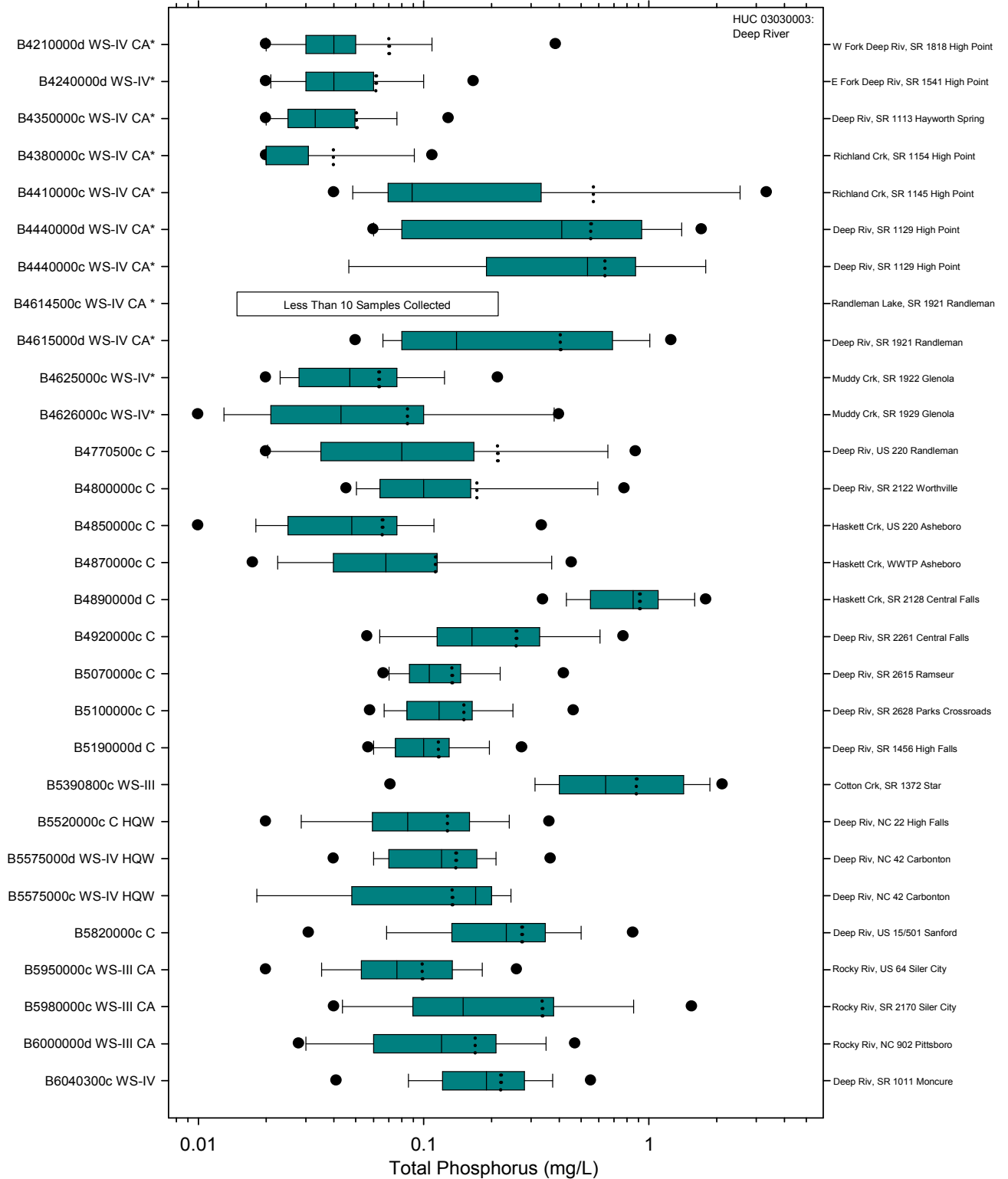
**Figure 32. Box Plots of Total Kjeldahl Nitrogen in HUC 03030003 in the Cape Fear River Basin**



**Figure 33. Box Plots of Nitrates and Nitrites as N in HUC 03030003 in the Cape Fear River Basin**



**Figure 34. Box Plots of Total Phosphorus in HUC 03030003 in the Cape Fear River Basin**



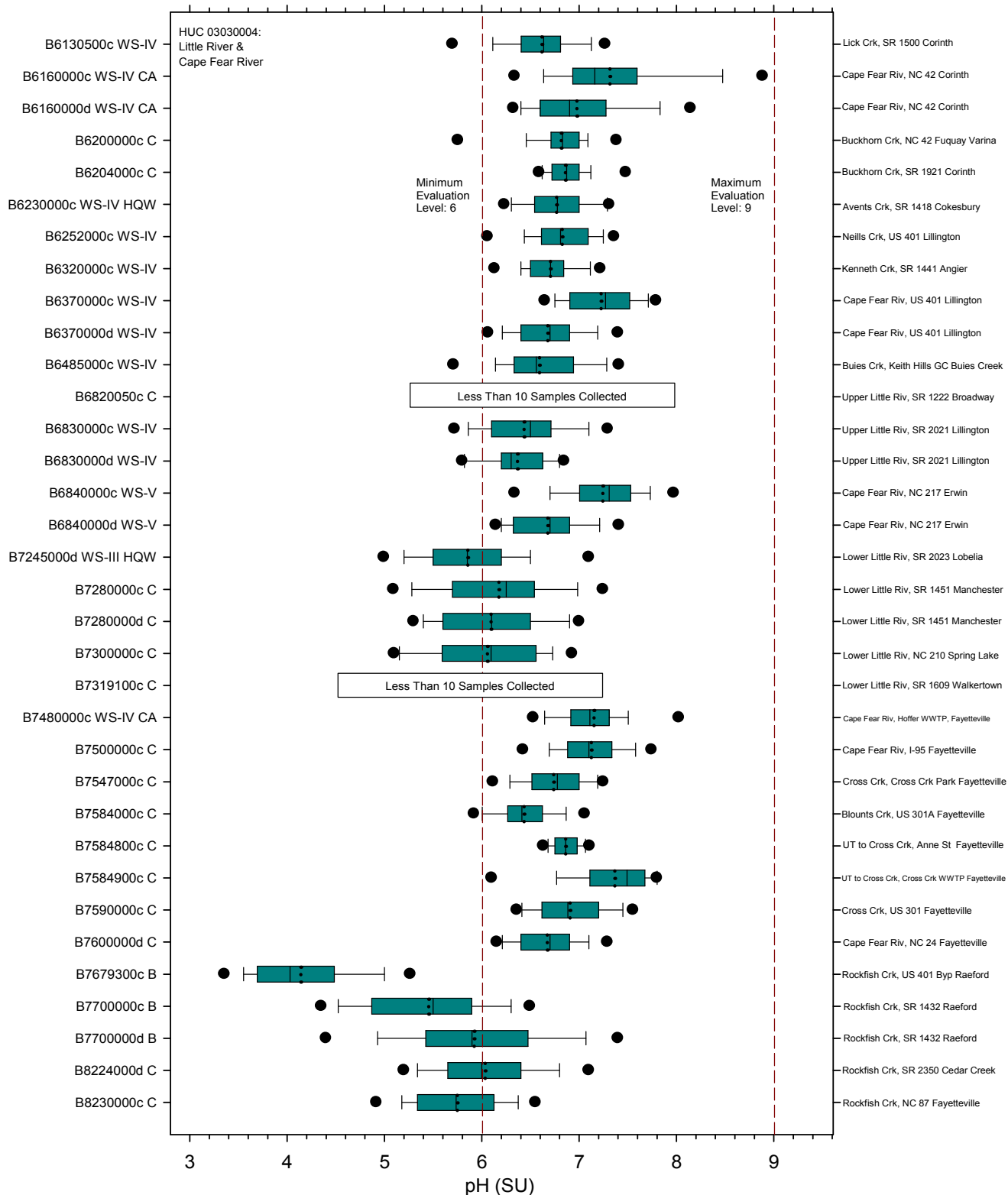
**Figure 35. Box Plots of Temperature in HUC 03030004 in the Cape Fear River Basin**



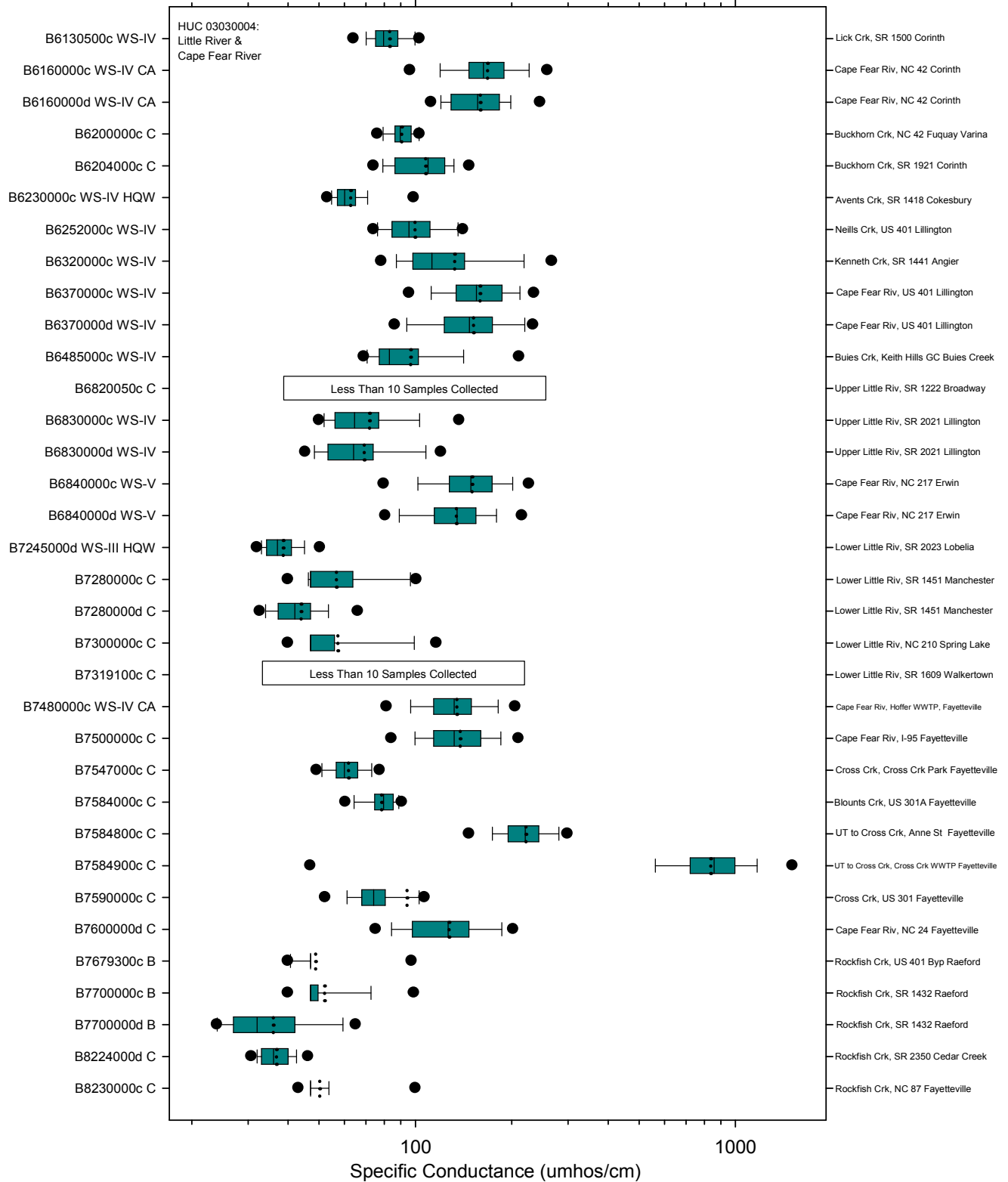
**Figure 36. Box Plots of Dissolved Oxygen in HUC 03030004 in the Cape Fear River Basin**



Figure 37. Box Plots of pH in HUC 03030004 in the Cape Fear River Basin

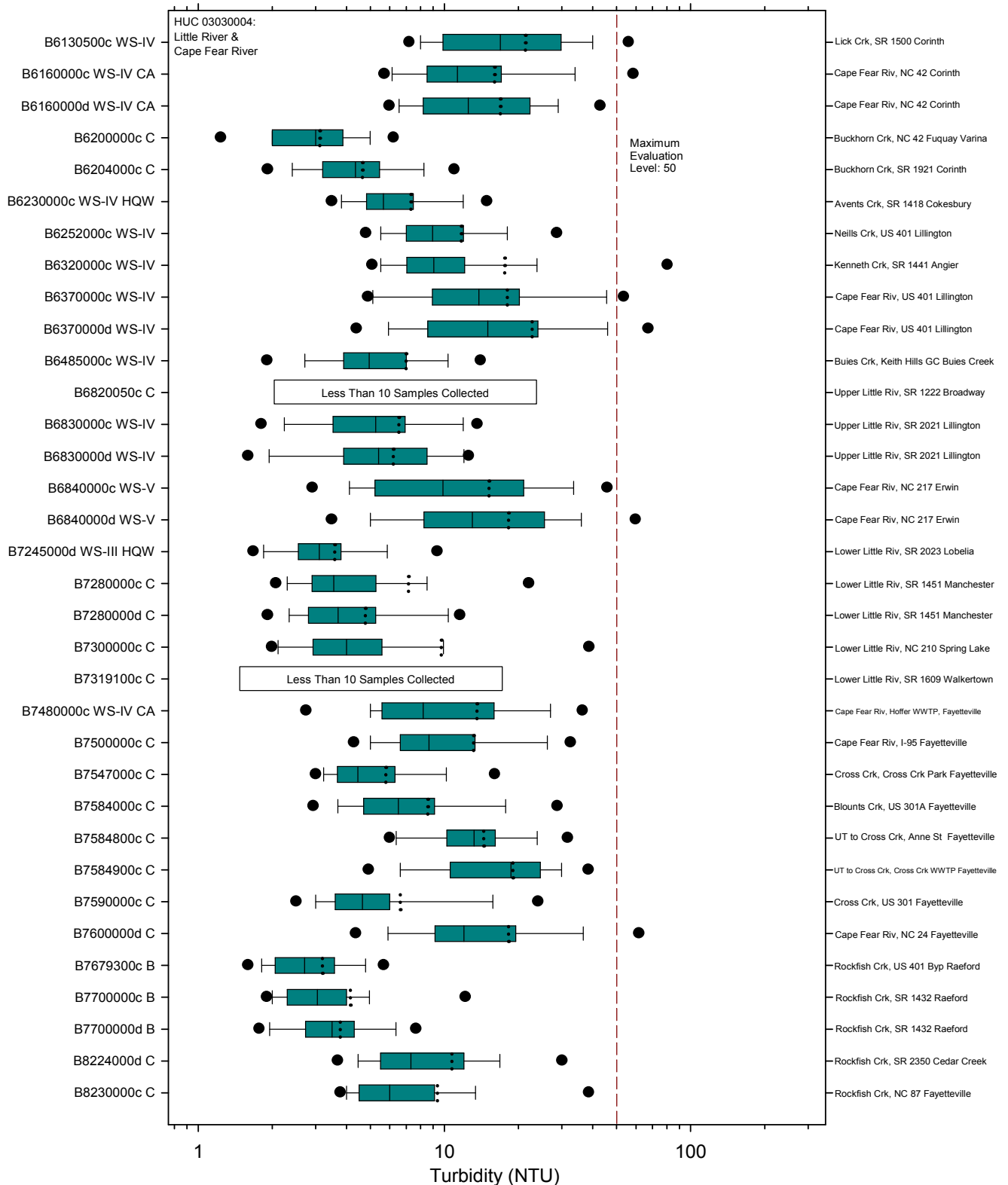


**Figure 38. Box Plots of Specific Conductance in HUC 03030004 in the Cape Fear River Basin**

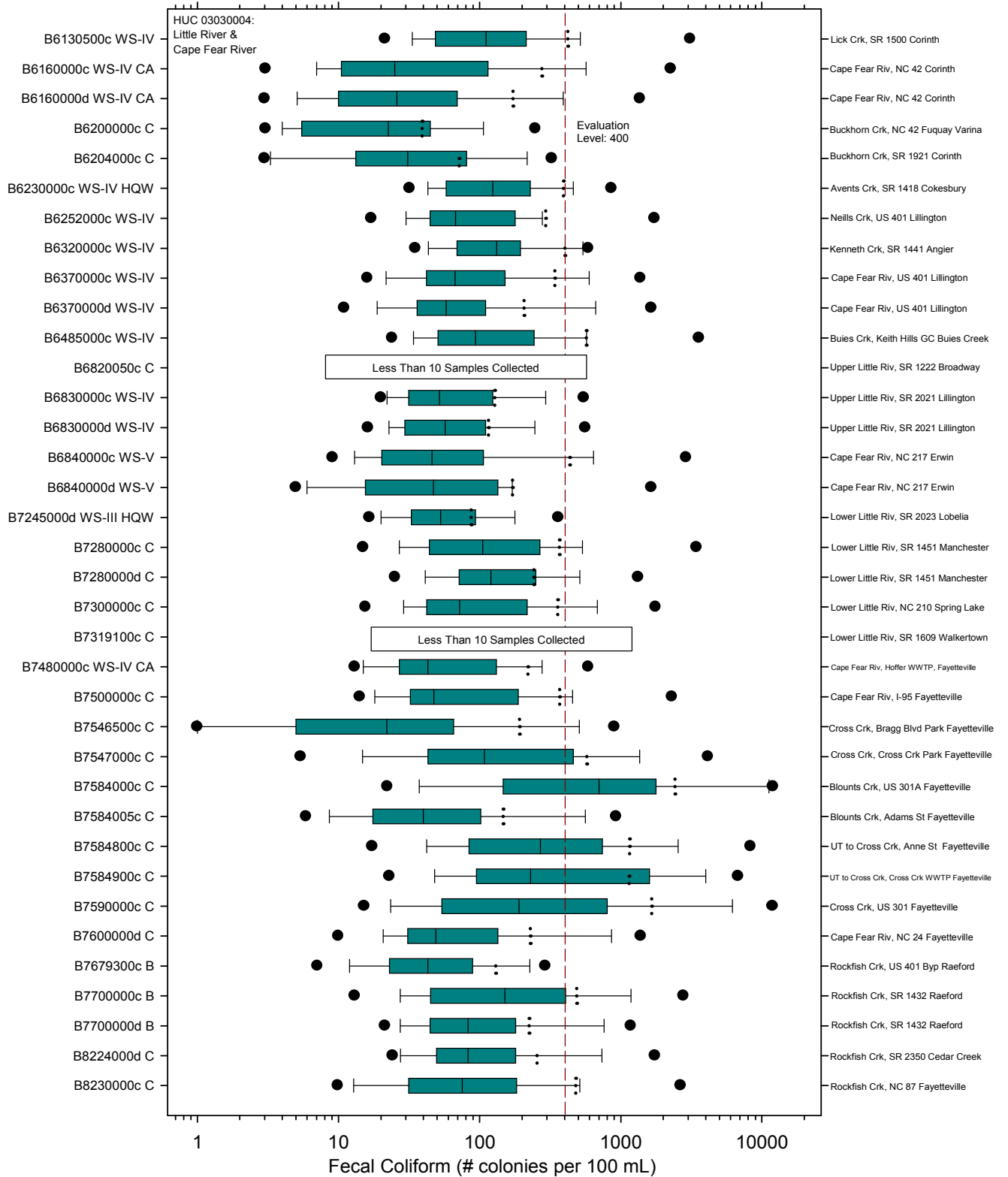




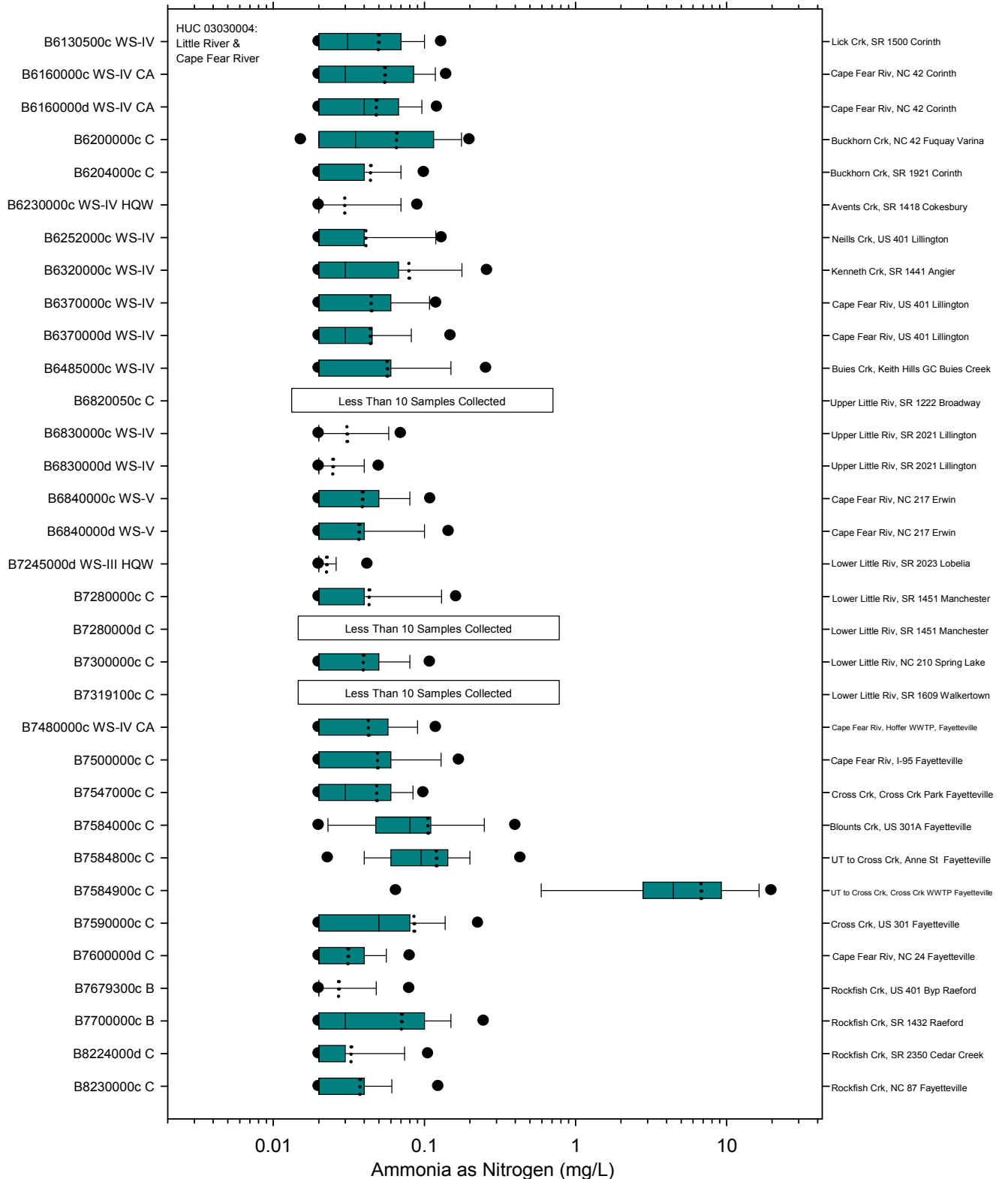
**Figure 39. Box Plots of Turbidity in HUC 03030004 in the Cape Fear River Basin**



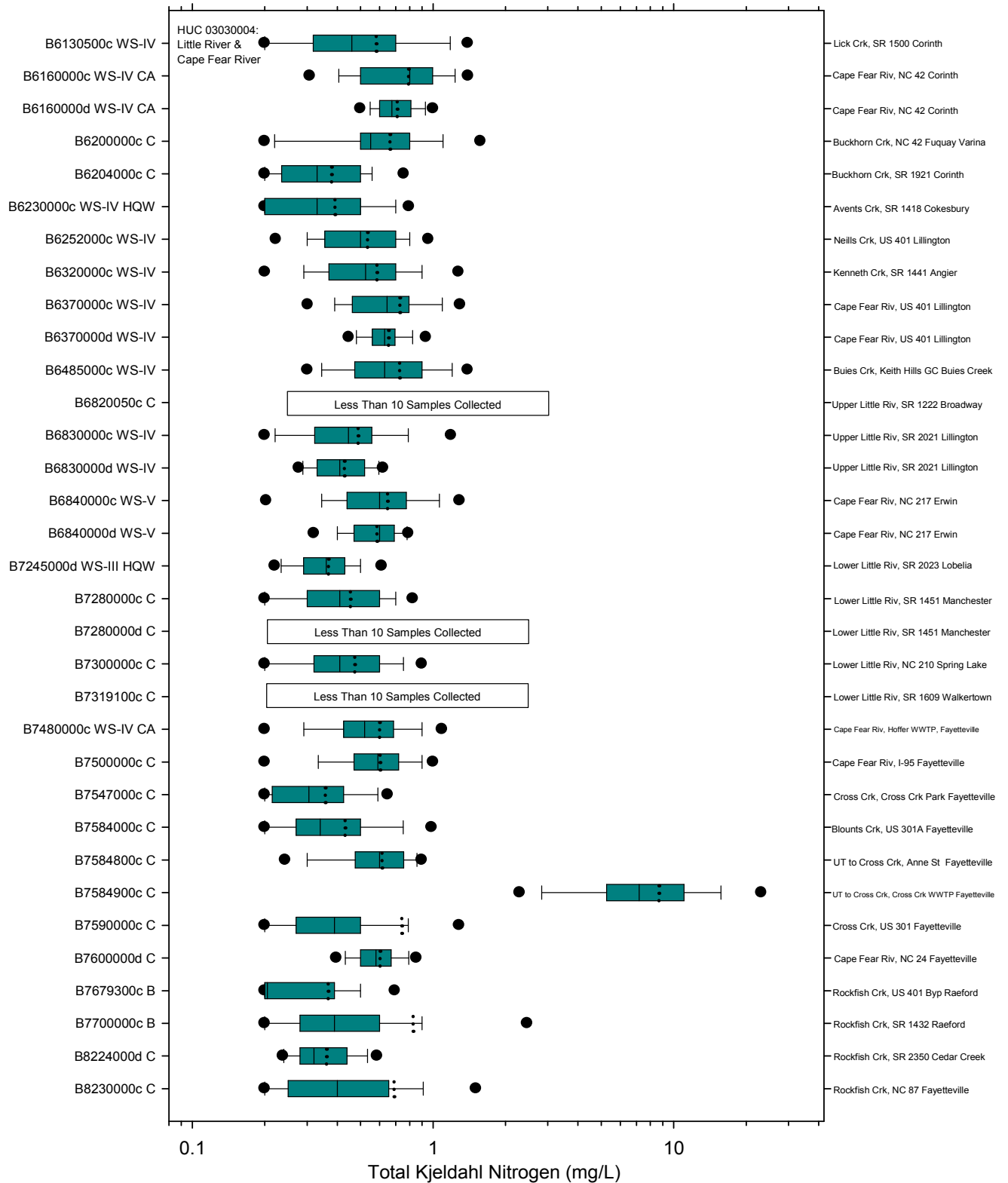
**Figure 40. Box Plots of Fecal Coliform in HUC 03030004 in the Cape Fear River Basin**



**Figure 41. Box Plots of Ammonia as N in HUC 03030004 in the Cape Fear River Basin**



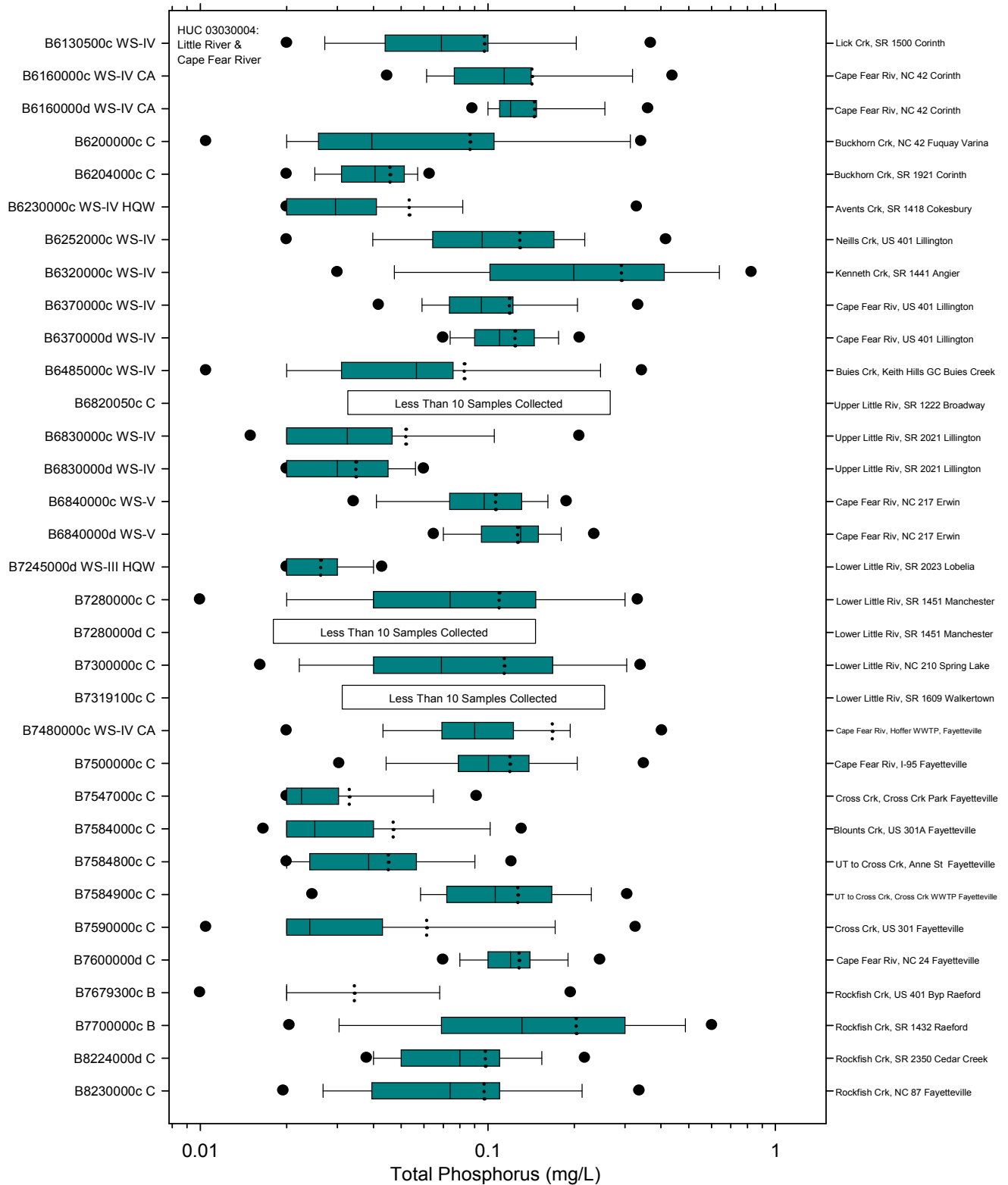
**Figure 42. Box Plots of Total Kjeldahl Nitrogen in HUC 03030004 in the Cape Fear River Basin**



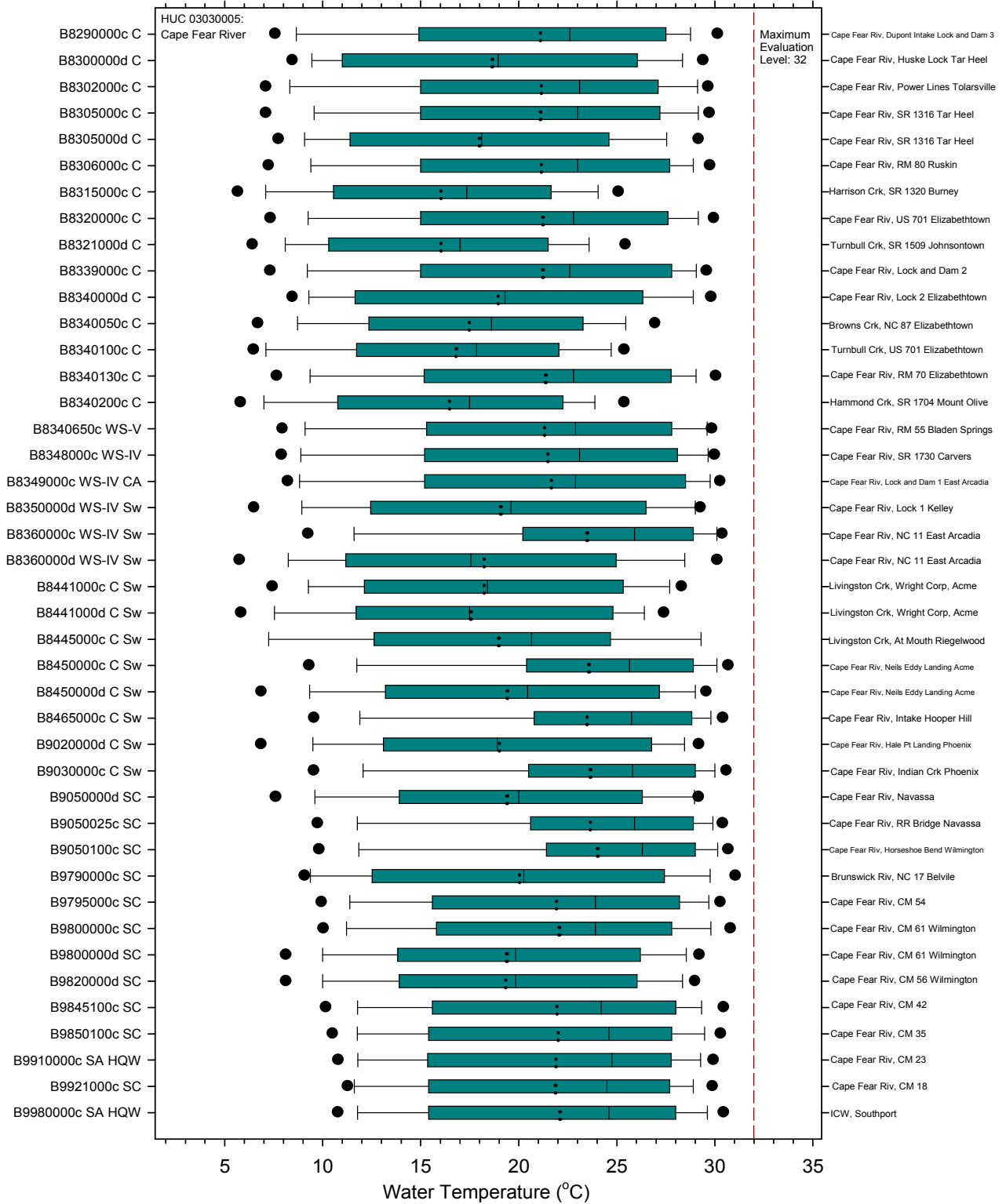
**Figure 43. Box Plots of Total Nitrates and Nitrites in HUC 03030004 in the Cape Fear River Basin**



**Figure 44. Box Plots of Total Phosphorus in HUC 03030004 in the Cape Fear River Basin**



**Figure 45. Box Plots of Temperature in HUC 03030005 in the Cape Fear River Basin**



**Figure 46. Box Plots of Dissolved Oxygen in HUC 03030005 in the Cape Fear River Basin**

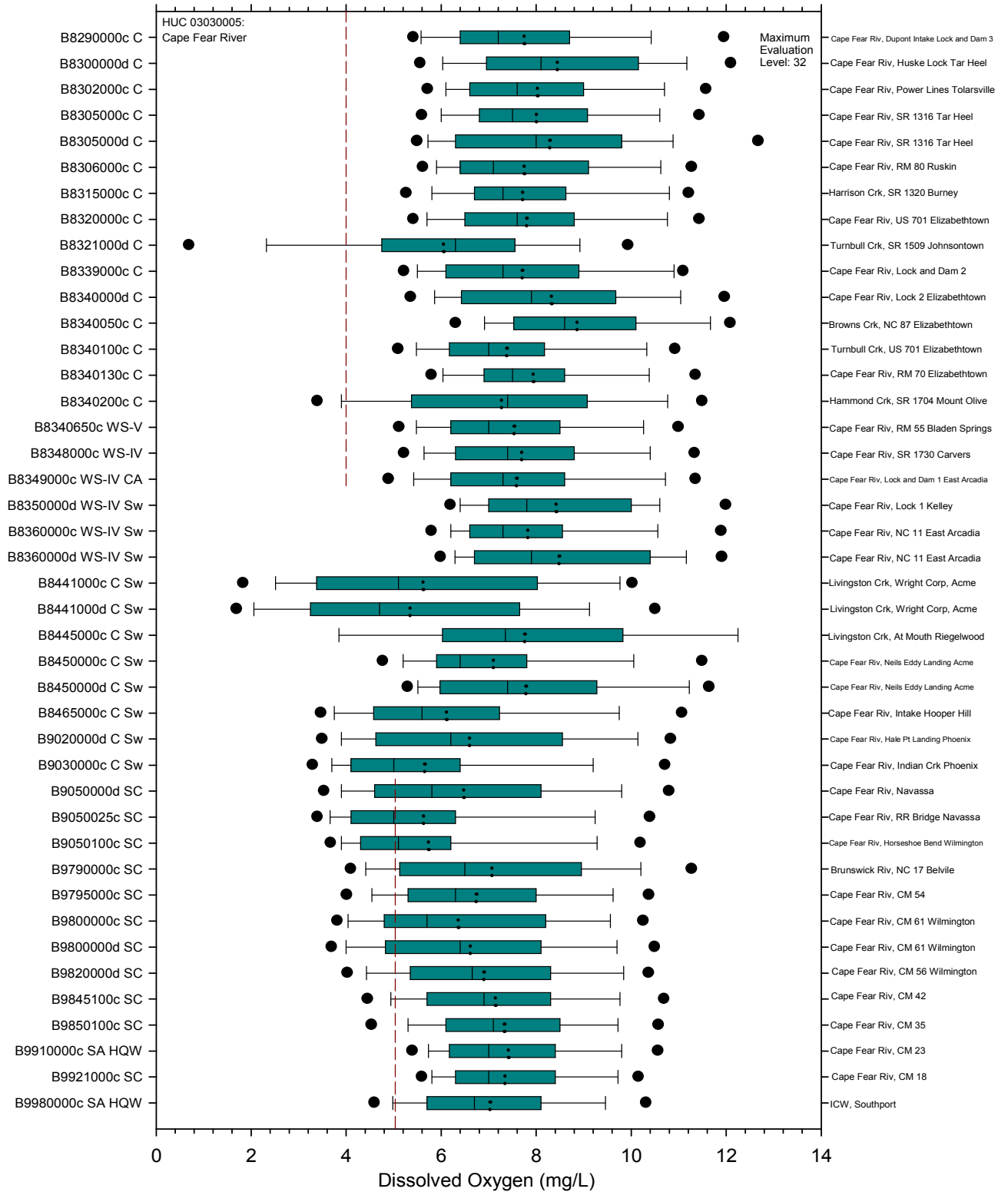
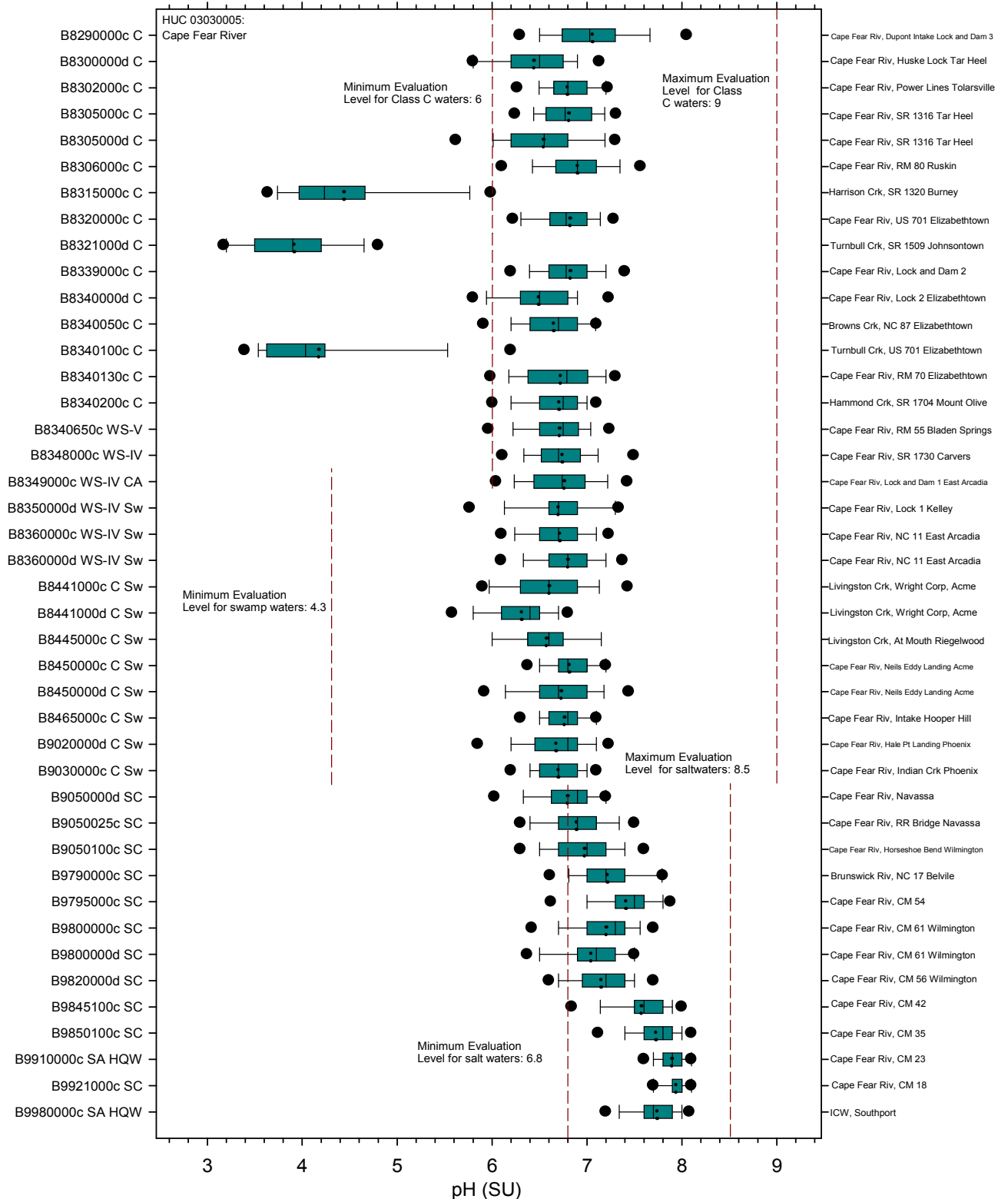




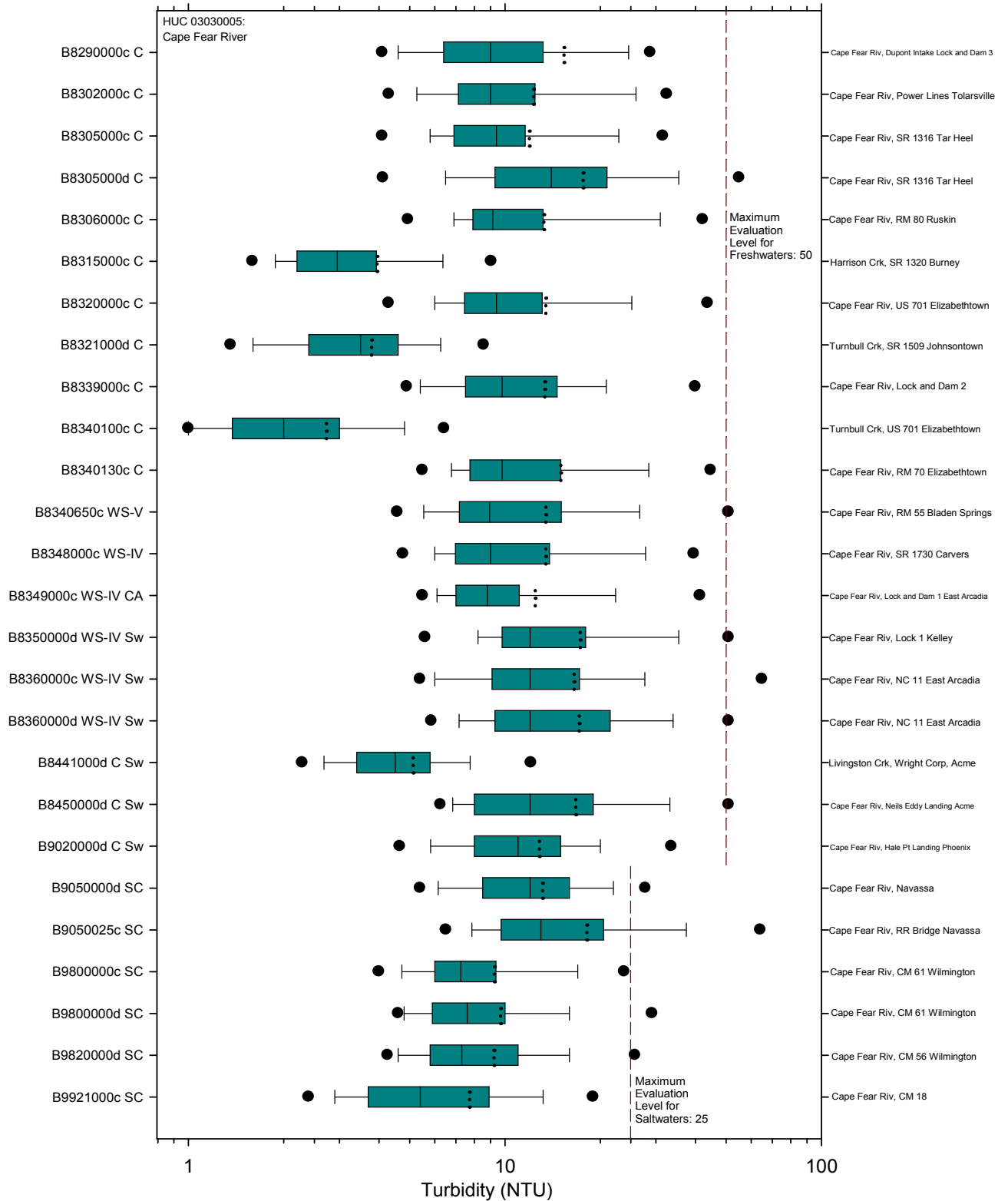
Figure 47. Box Plots of pH in HUC 03030005 in the Cape Fear River Basin



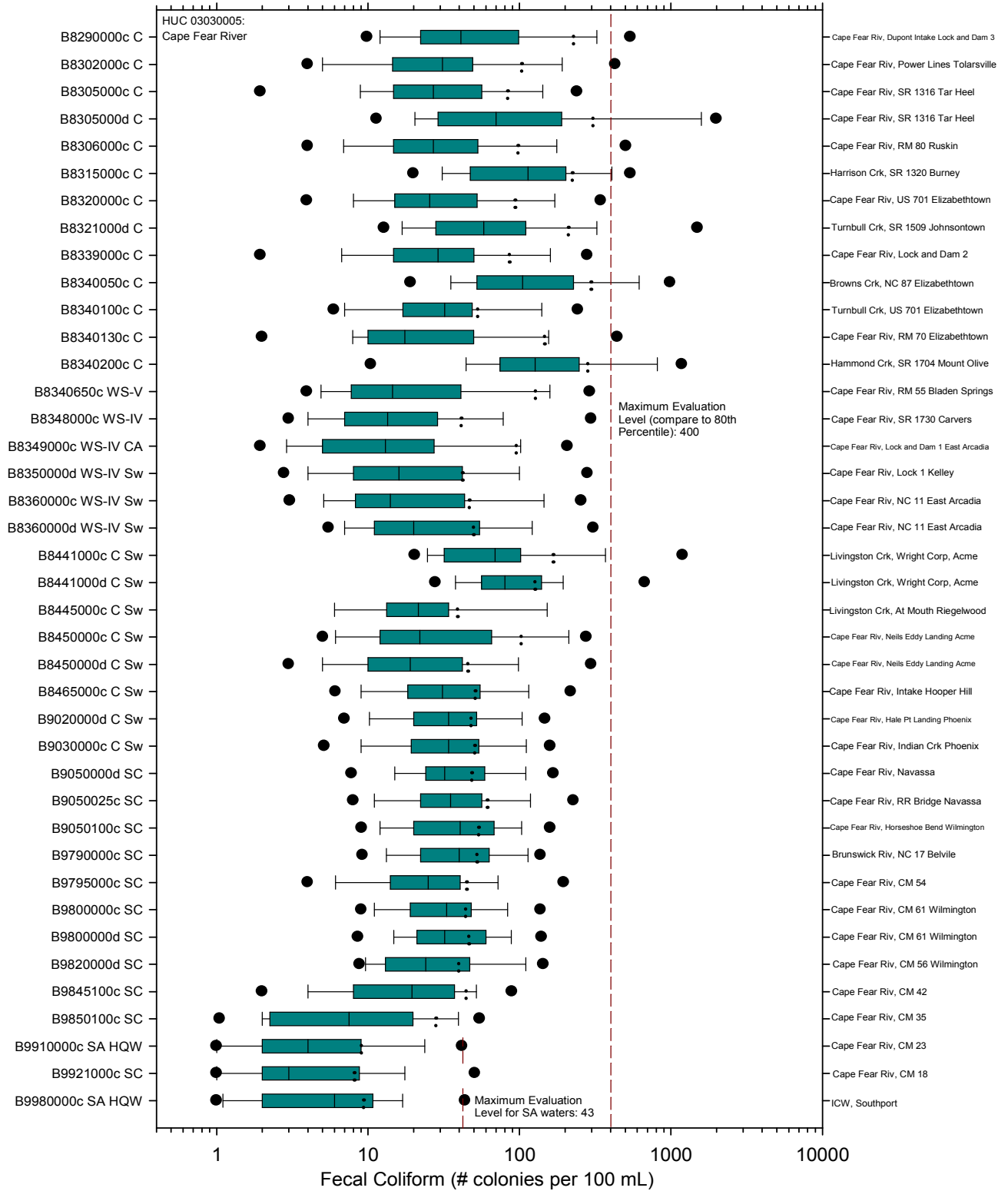
**Figure 48. Box Plots of Specific Conductance in HUC 03030005 in the Cape Fear River Basin**



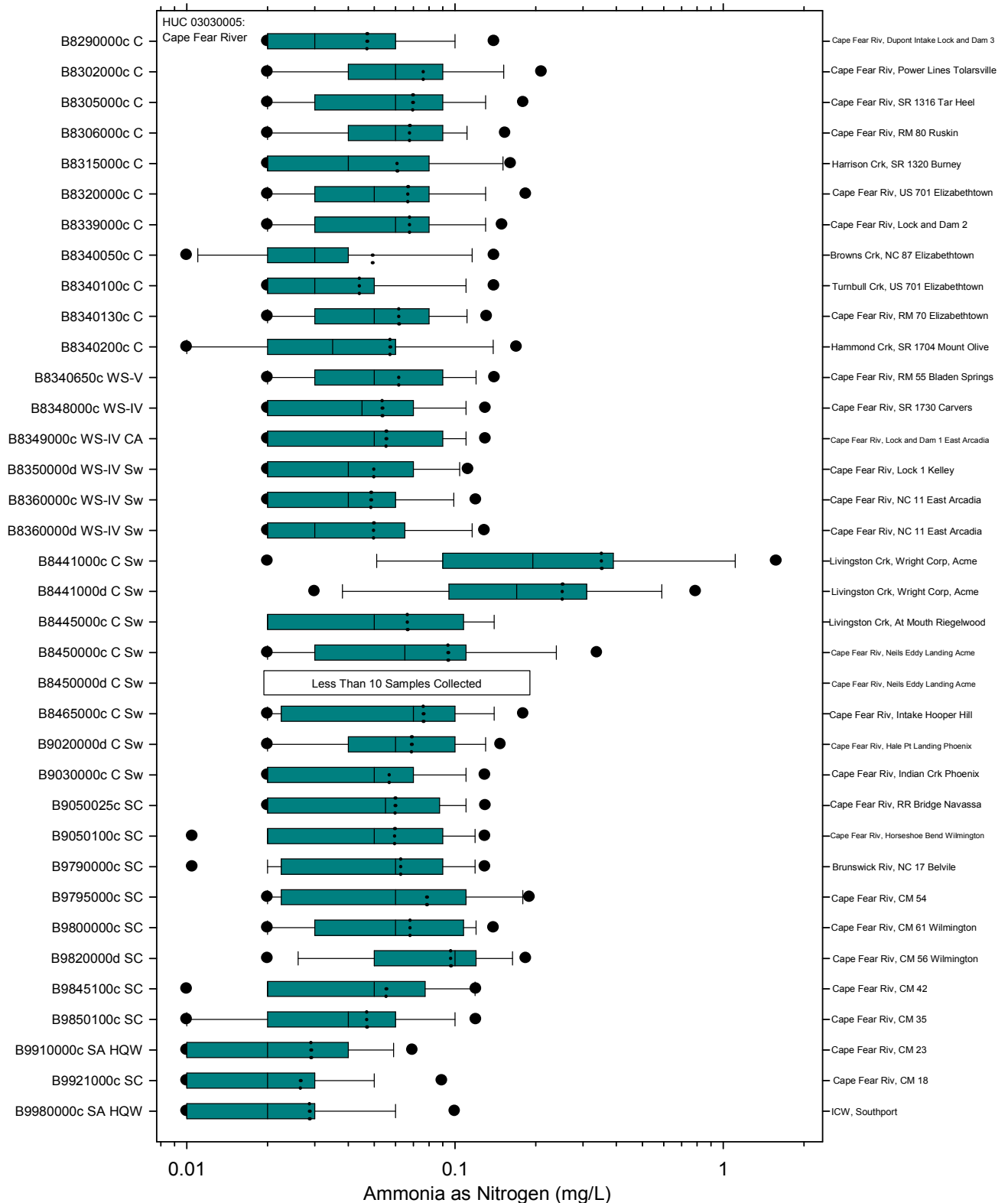
**Figure 49. Box Plots of Turbidity in HUC 03030005 in the Cape Fear River Basin**



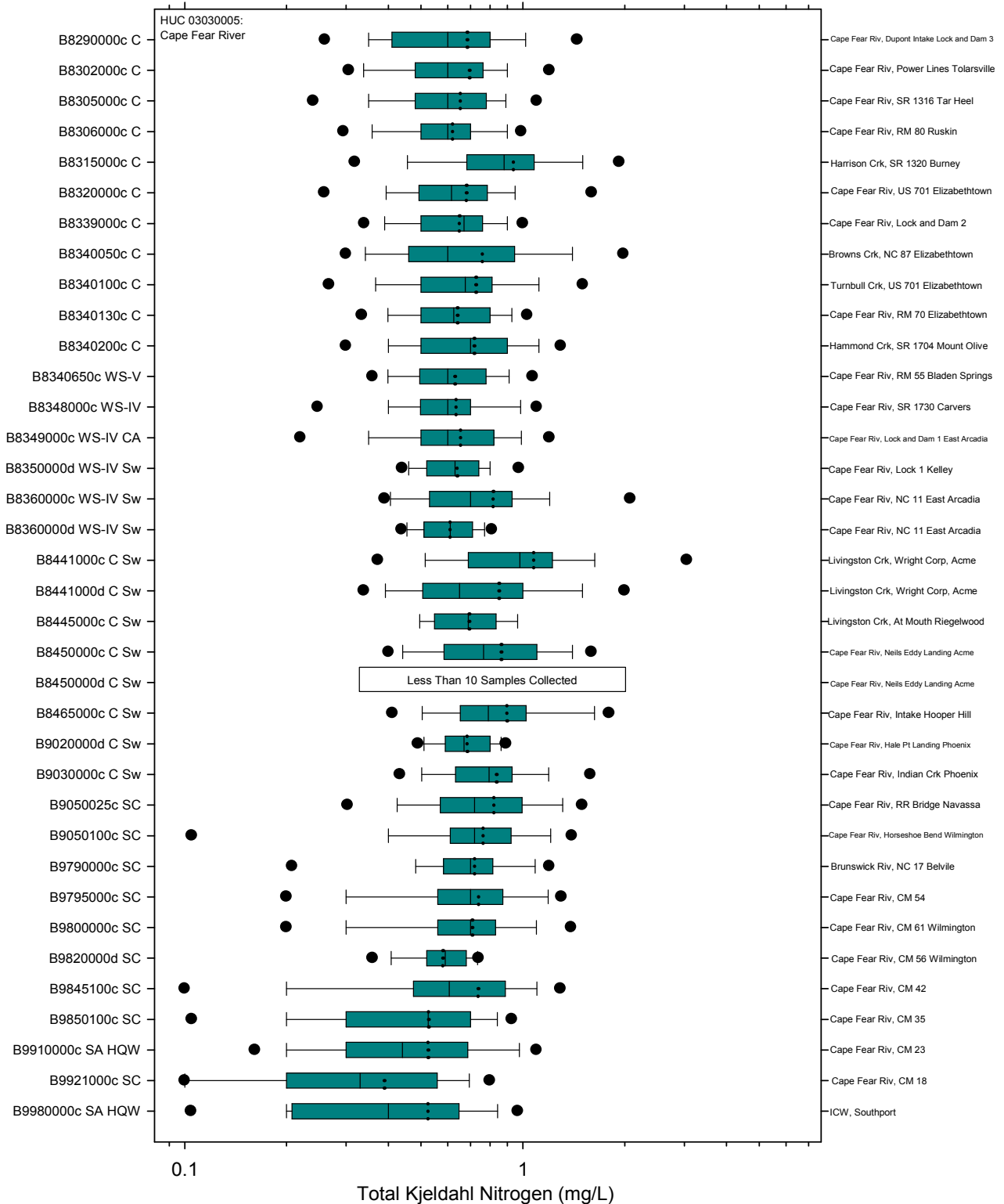
**Figure 50. Box Plots of Fecal Coliform in HUC 03030005 in the Cape Fear River Basin**



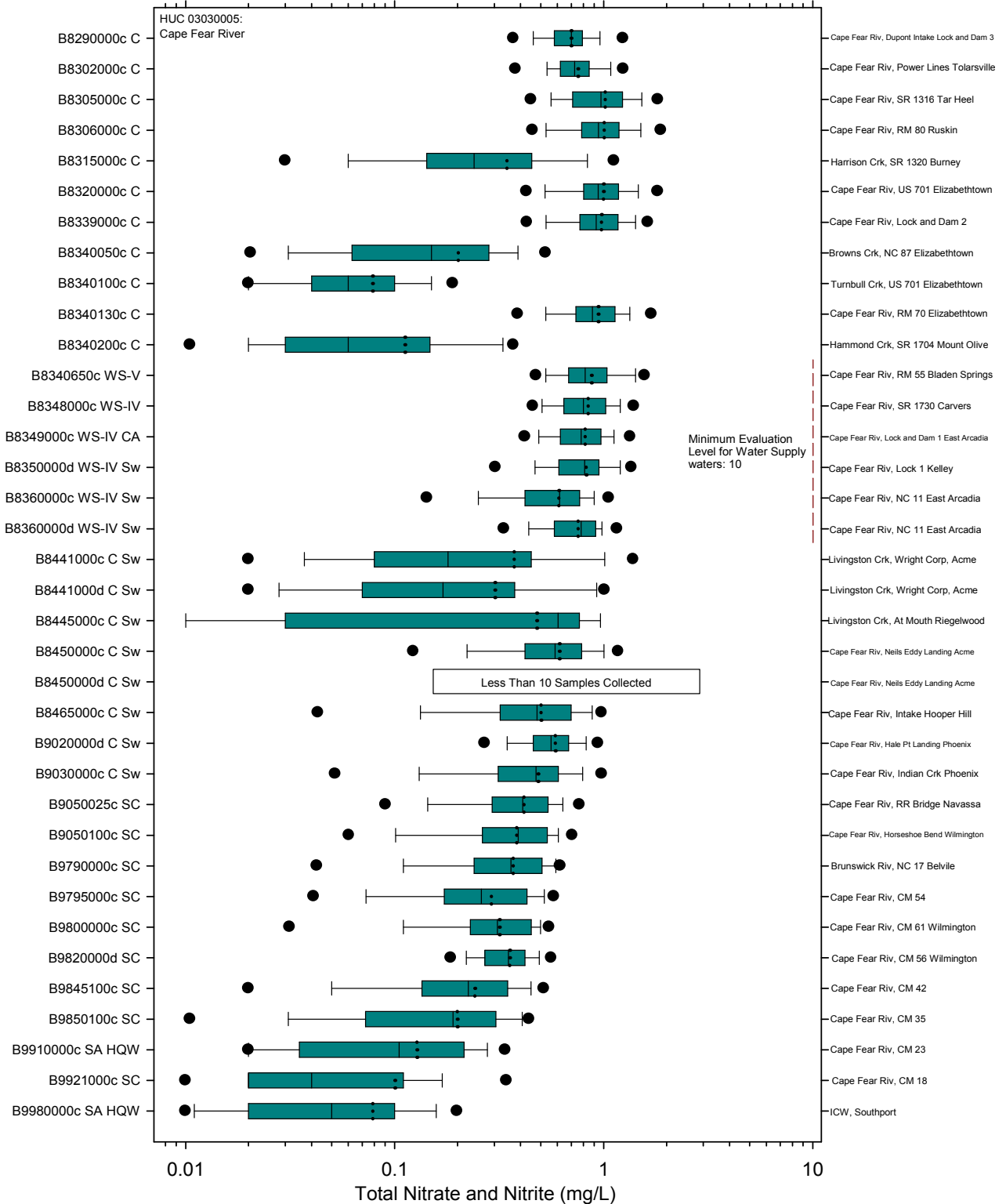
**Figure 51. Box Plots of Ammonia as Nitrogen in HUC 03030005 in the Cape Fear River Basin**



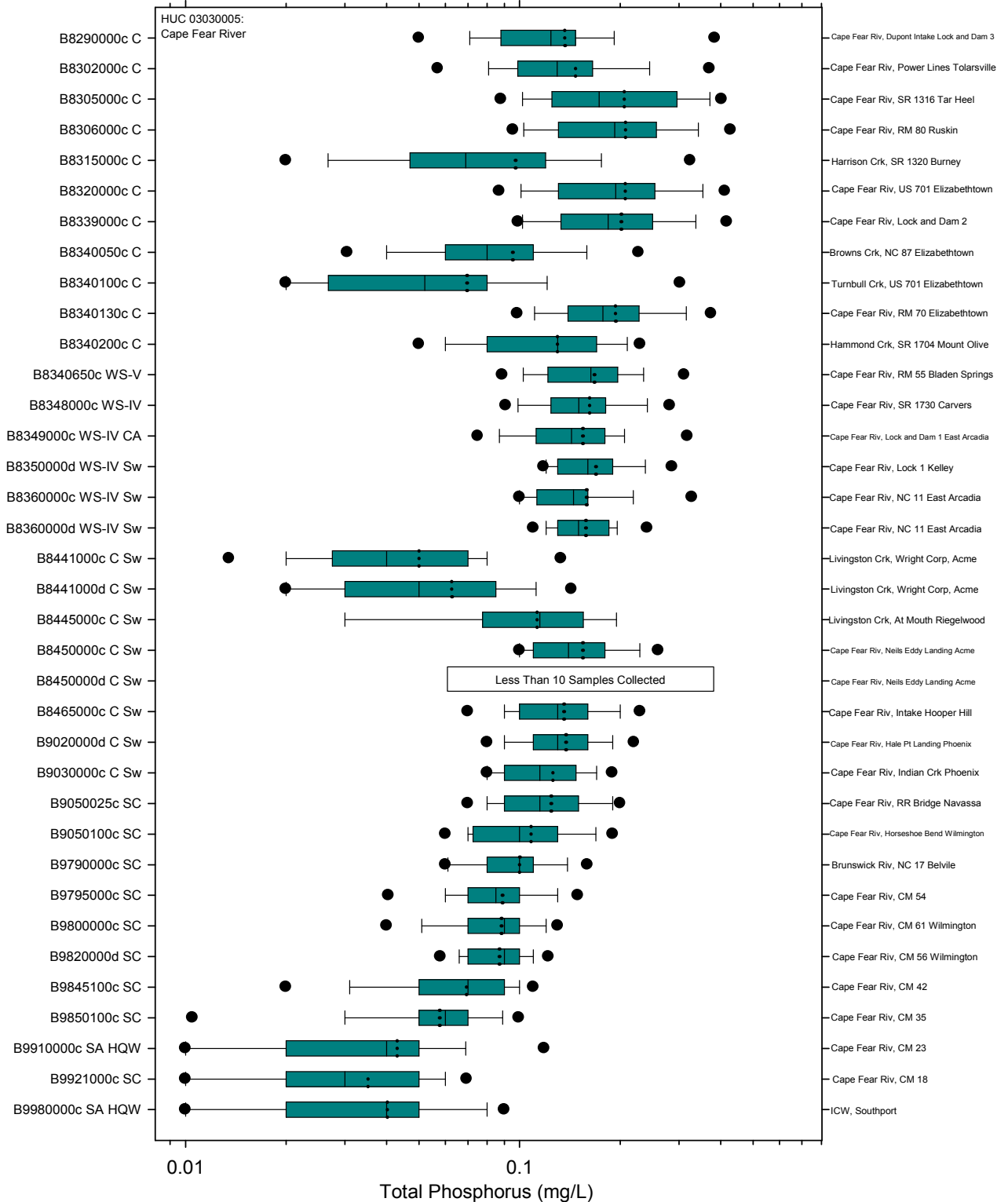
**Figure 52. Box Plots of Total Kjeldahl Nitrogen in HUC 03030005 in the Cape Fear River Basin**



**Figure 53. Box Plots of Total Nitrate and Nitrite in HUC 03030005 in the Cape Fear River Basin**

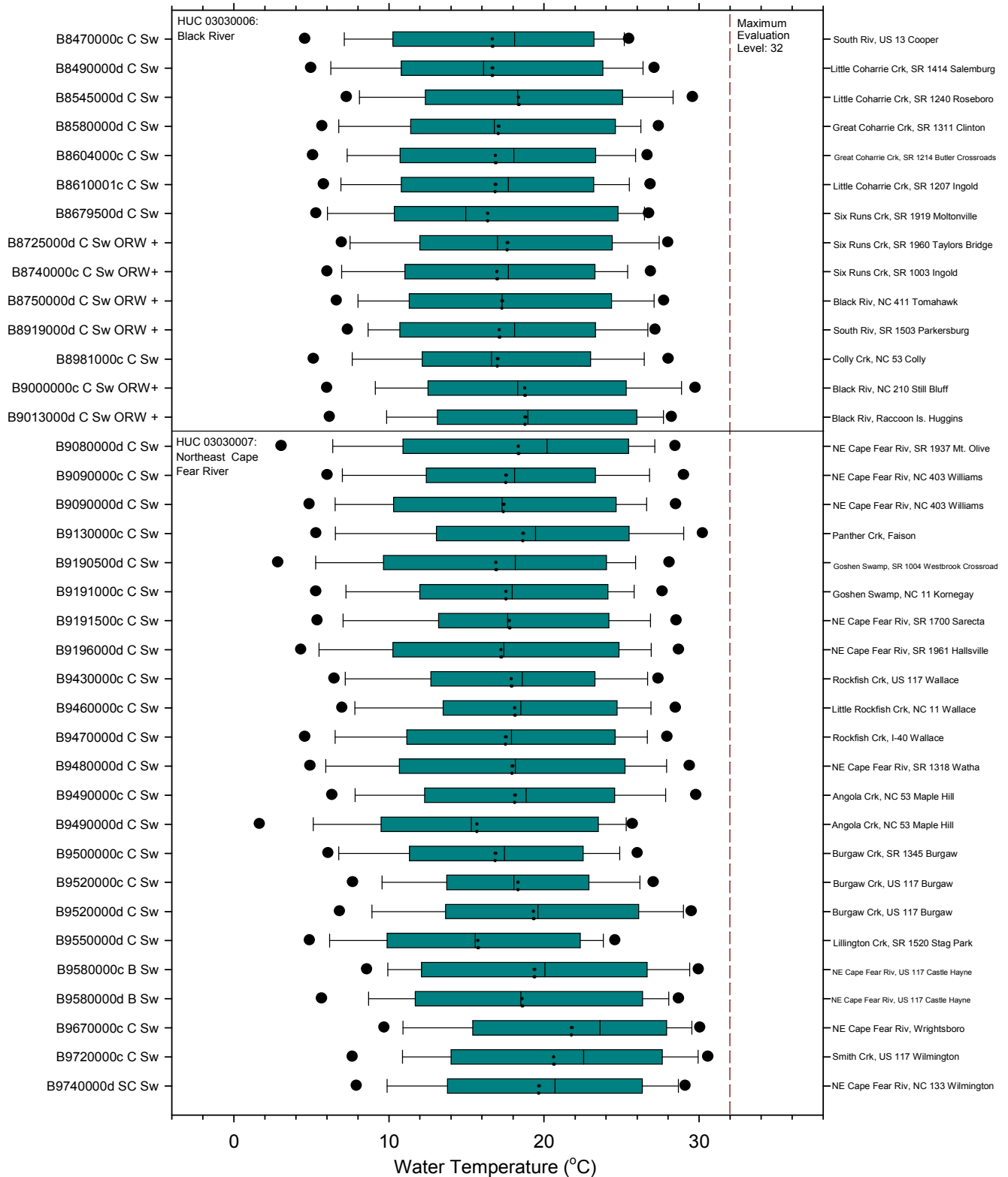


**Figure 54. Box Plots of Total Phosphorus in HUC 03030005 in the Cape Fear River Basin**

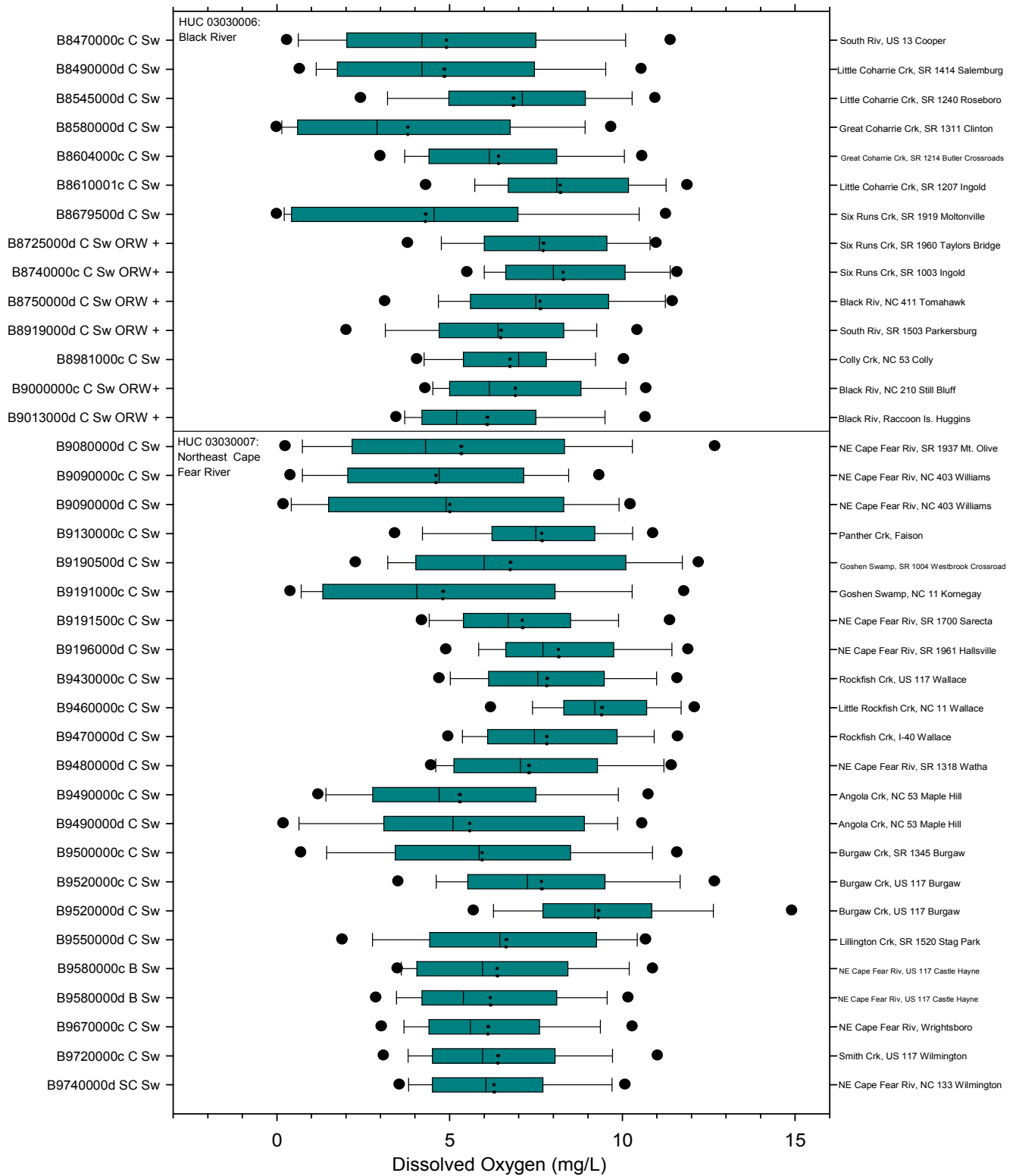




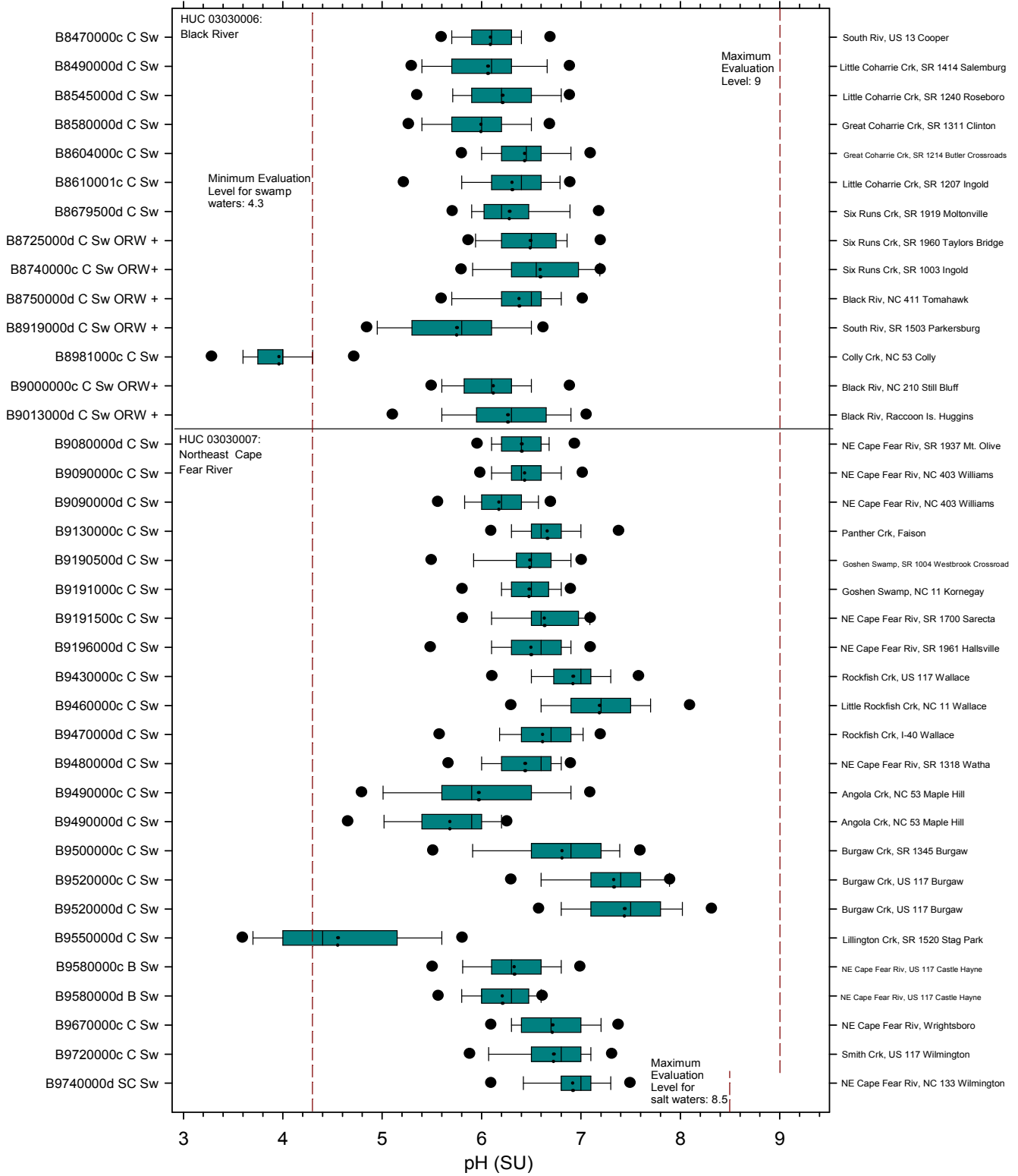
**Figure 55. Box Plots of Temperature in HUC 0303006/7 in the Cape Fear River Basin**



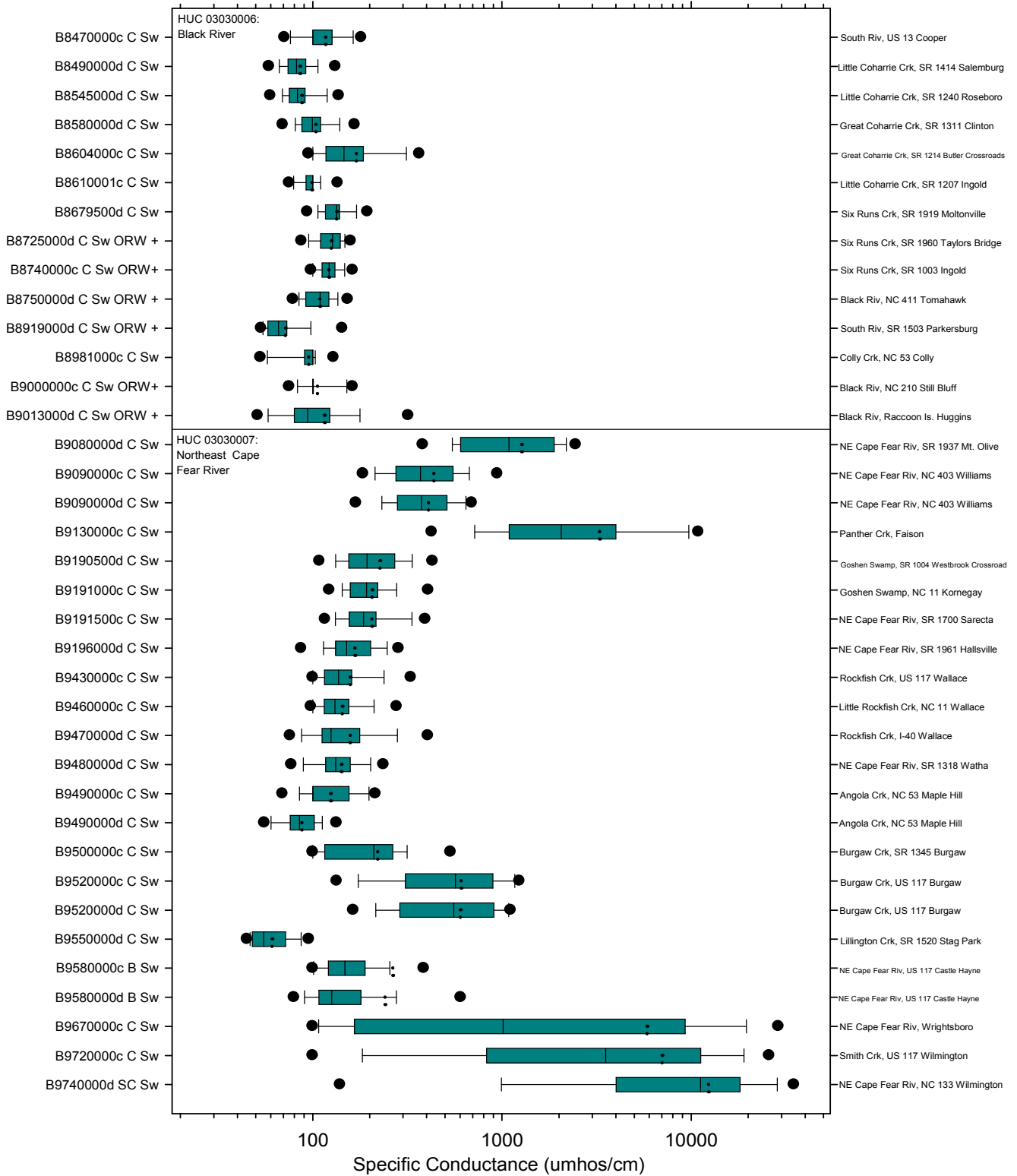
**Figure 56. Box Plots of Dissolved Oxygen in HUC 0303006/7 in the Cape Fear River Basin**



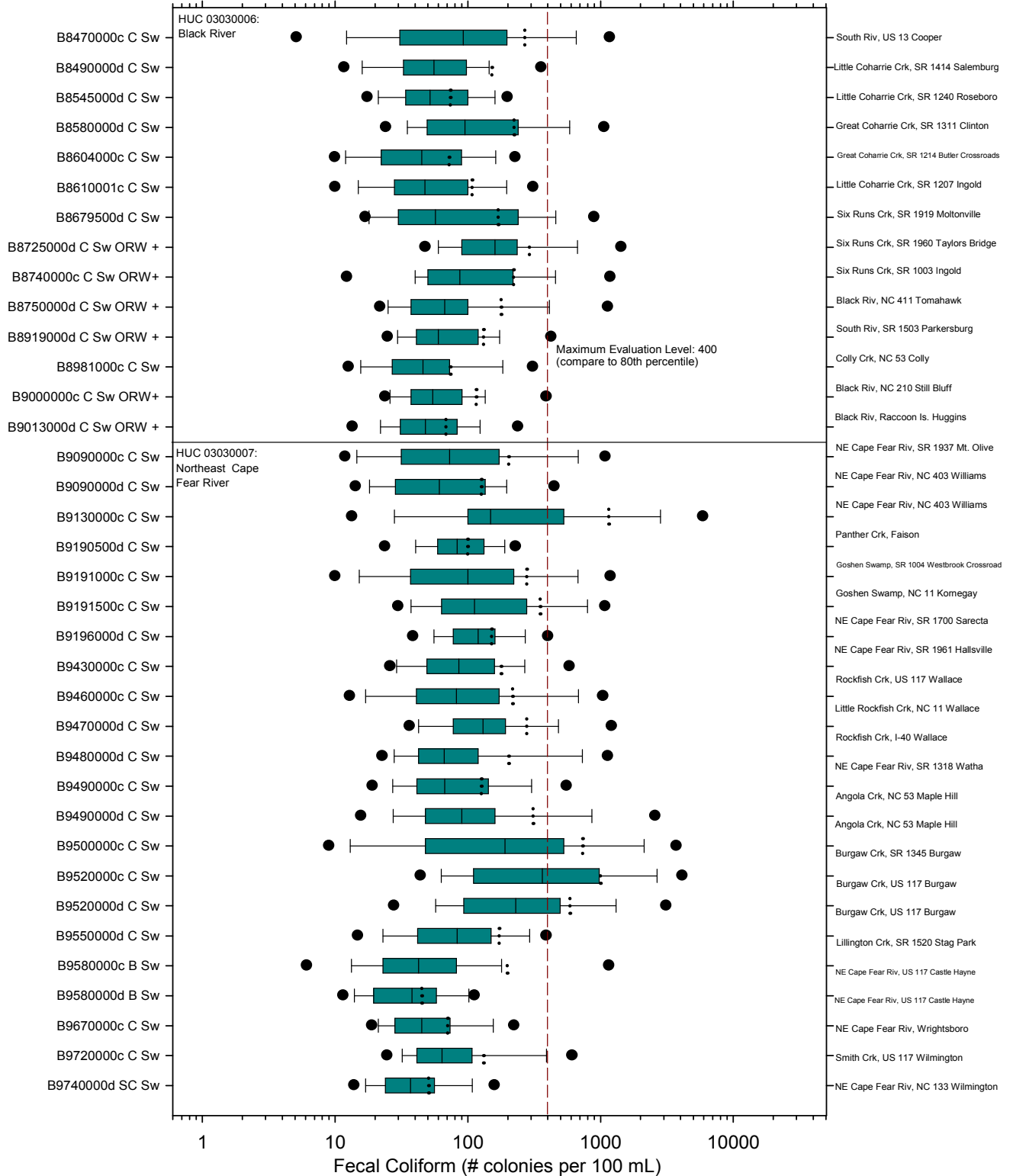
**Figure 57. Box Plots of pH in HUC 03030006/7 in the Cape Fear River Basin**



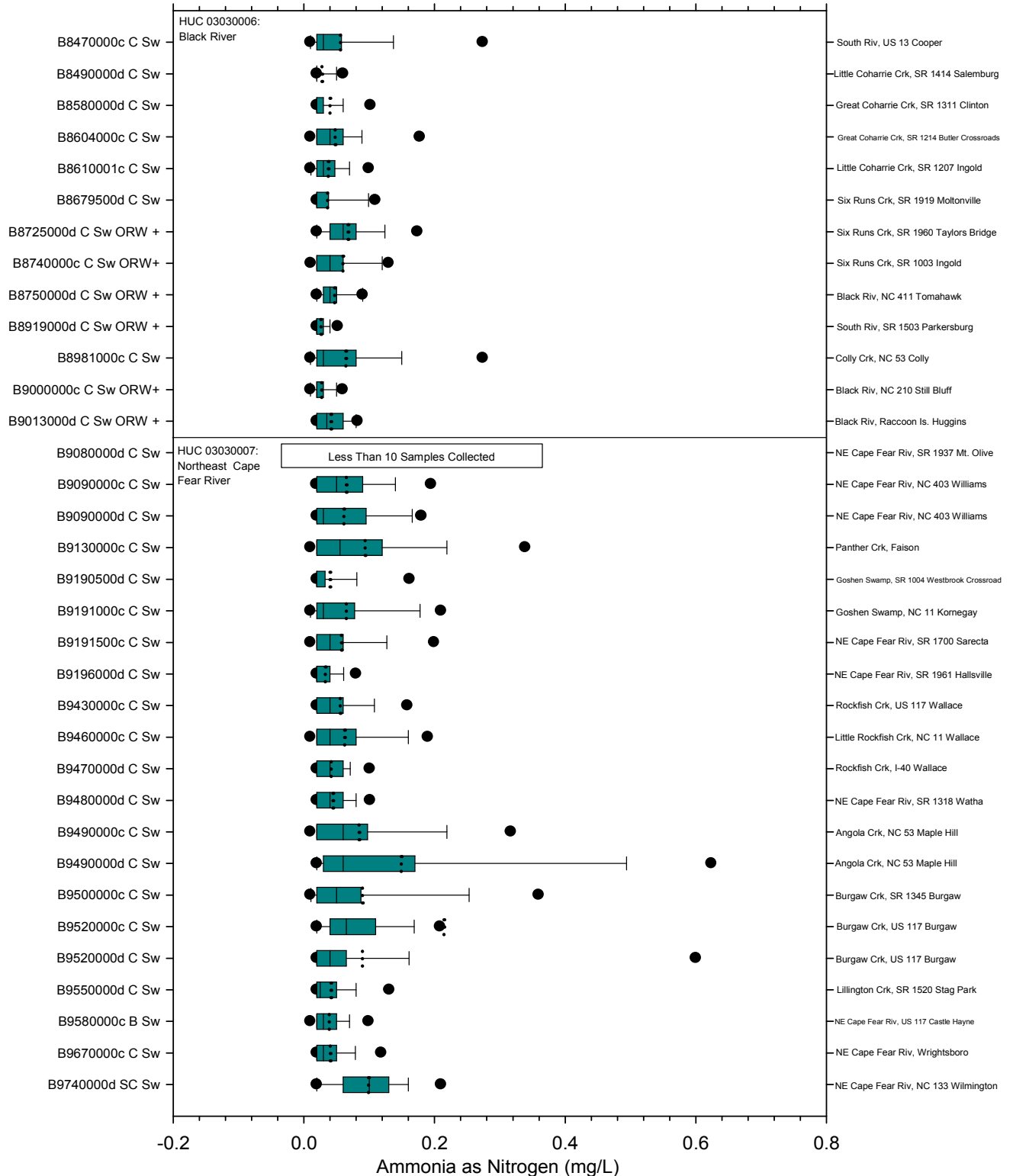
**Figure 58. Box Plots of Specific Conductance in HUC 0303006/7 in the Cape Fear River Basin**



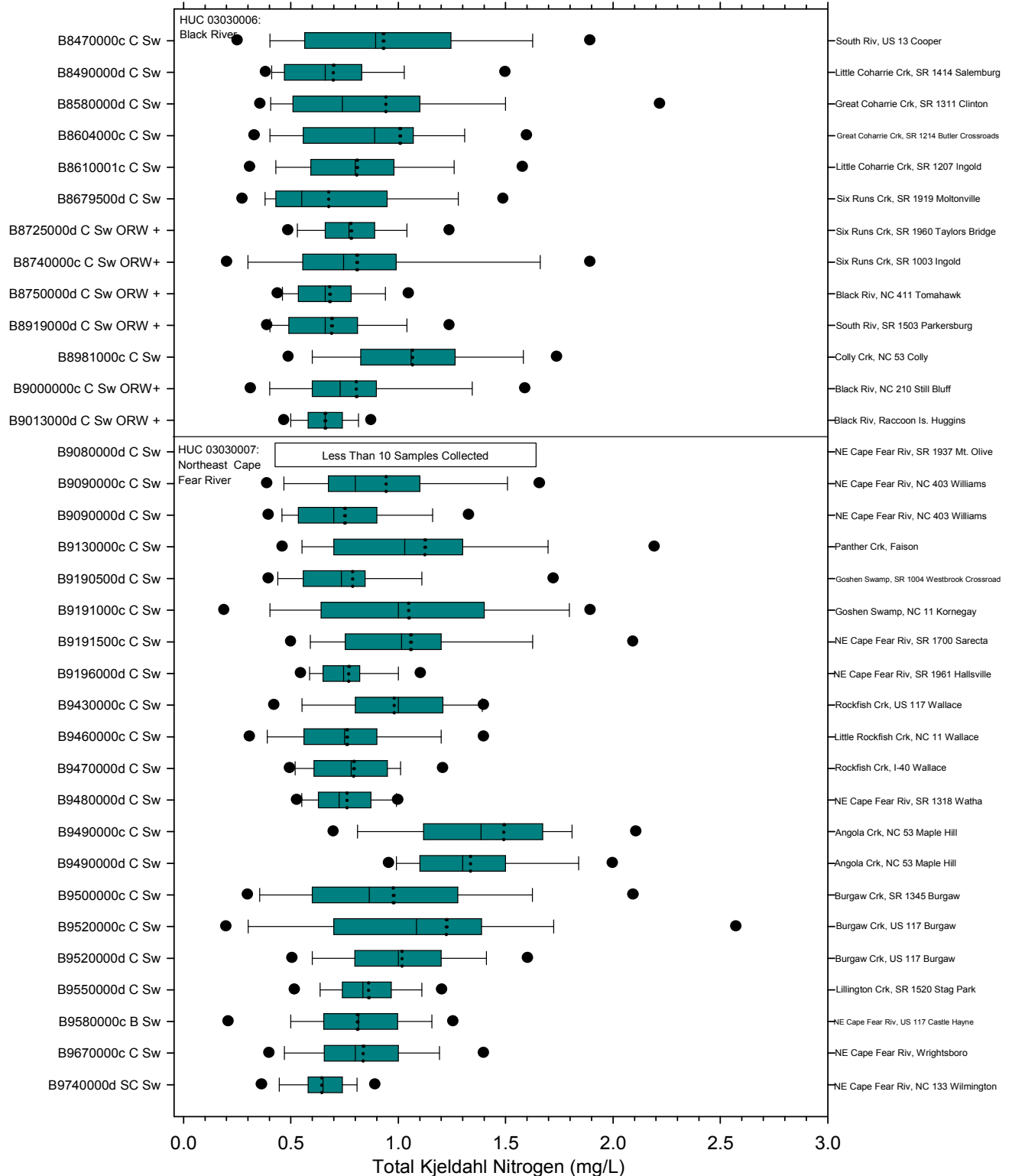
**Figure 59. Box Plots of Fecal Coliform in HUC 0303006/7 in the Cape Fear River Basin**



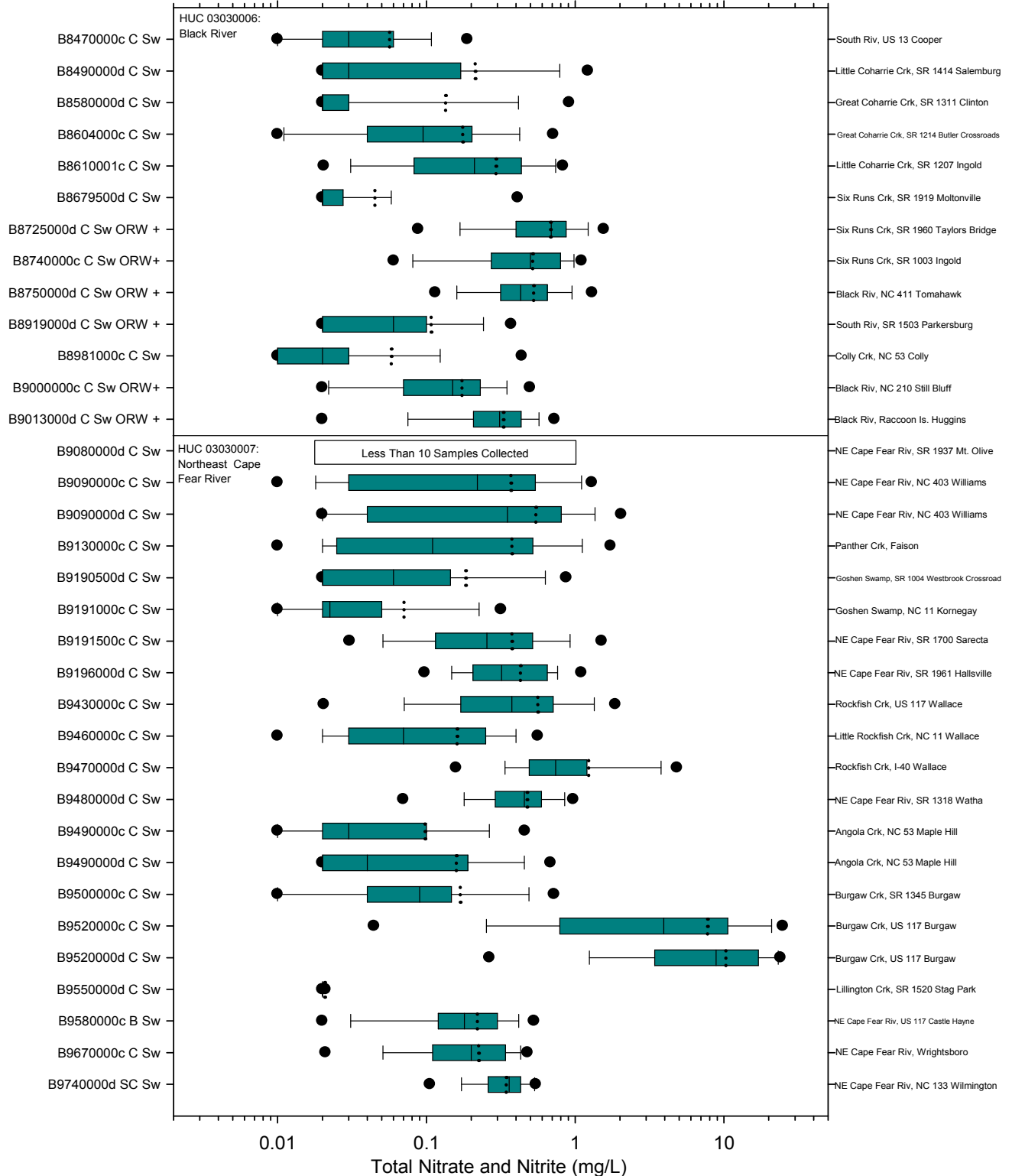
**Figure 60. Box Plots of Ammonia as Nitrogen in HUC 0303006/7 in the Cape Fear River Basin**



**Figure 61. Box Plots of Total Kjeldahl Nitrogen in HUC 03030006/7 in the Cape Fear River Basin**

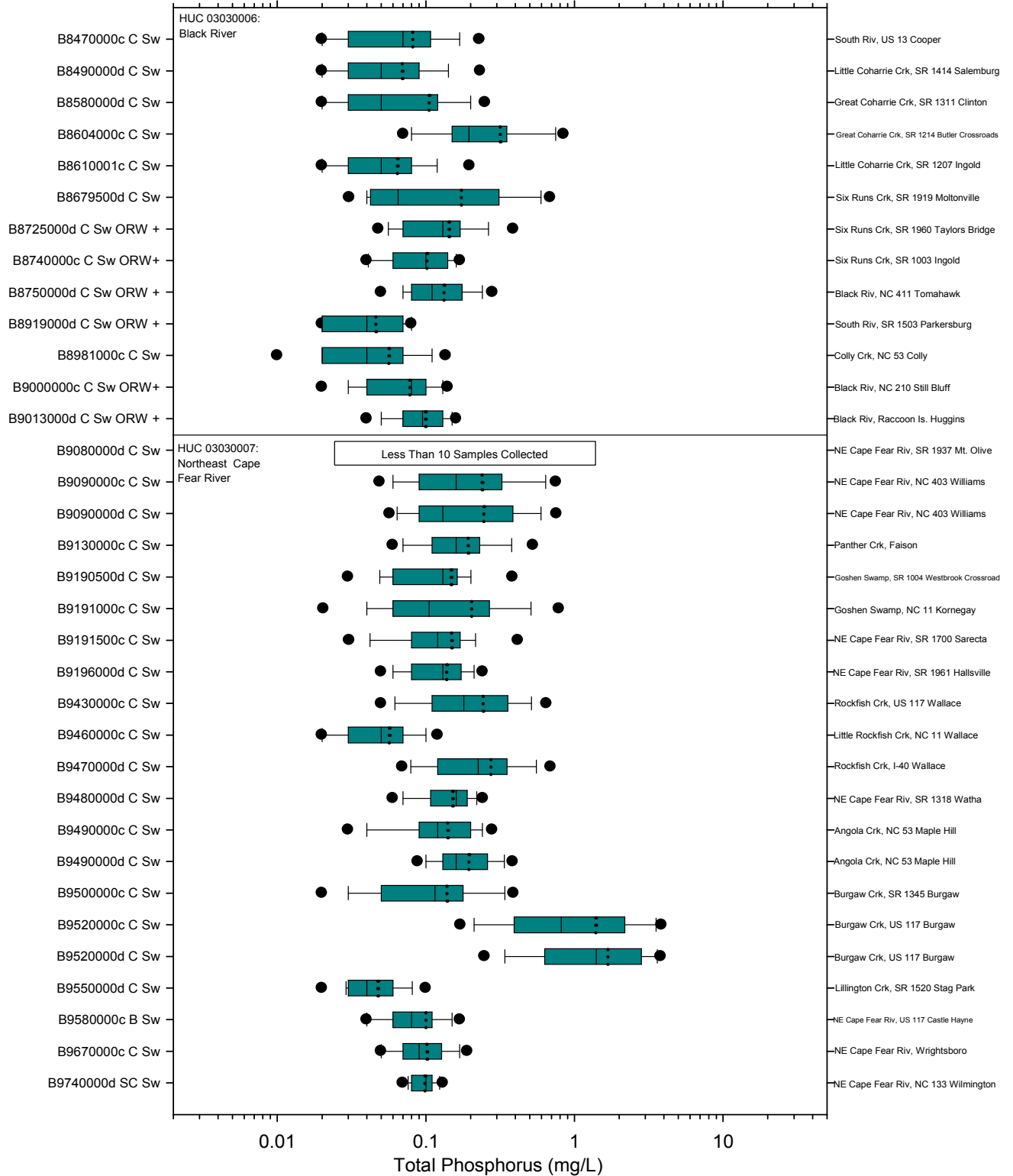


**Figure 62. Box Plots of Total Nitrates and Nitrites in HUC 0303006/7 in the Cape Fear River Basin**

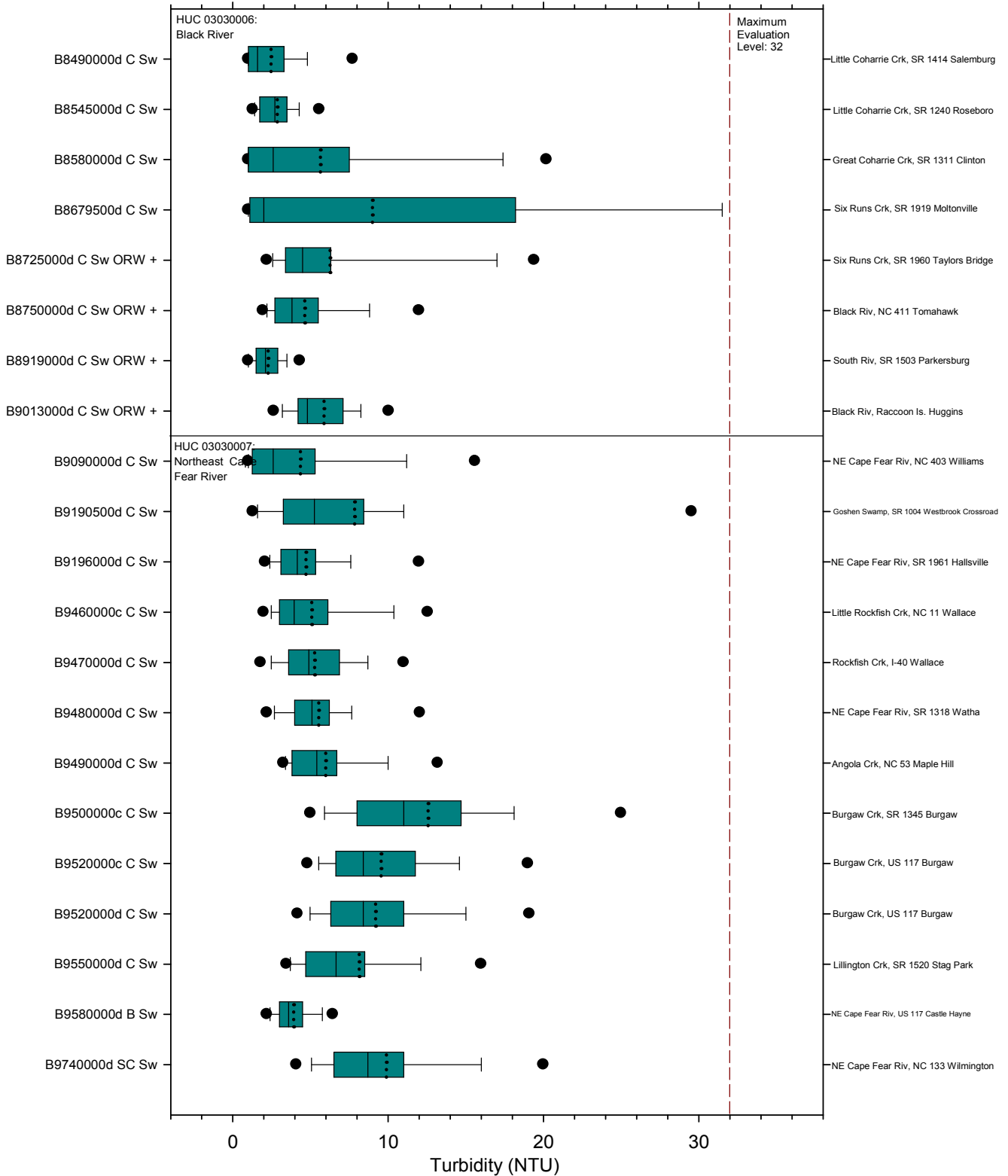




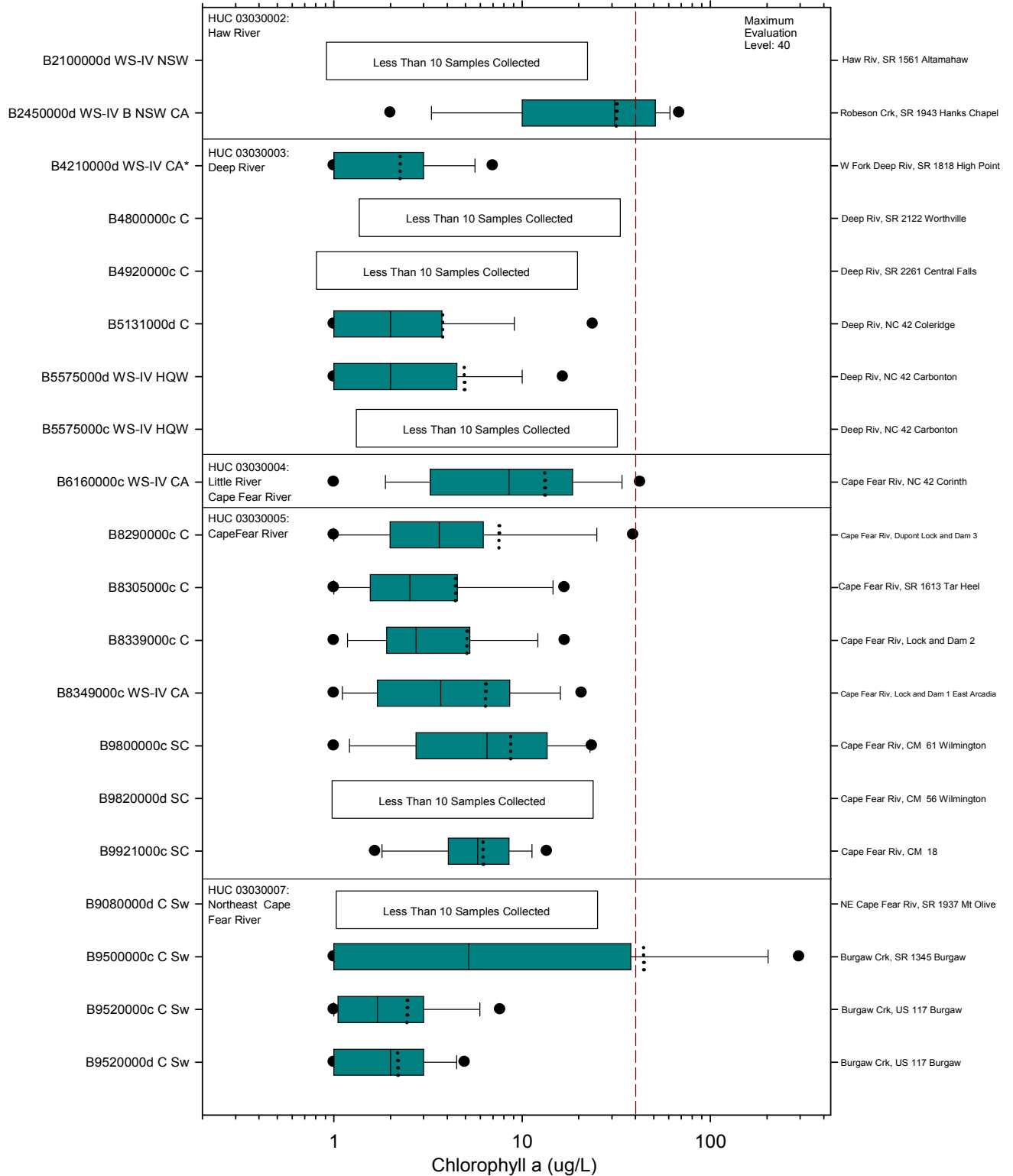
**Figure 63. Box Plots of Total Phosphorus in HUC 03030006/7 in the Cape Fear River Basin**



**Figure 64. Box Plots of Turbidity in HUC 0303006/7 in the Cape Fear River Basin**



**Figure 65. Box Plots of Chlorophyll a in the Cape Fear River Basin**



## **Appendix C: References**

North Carolina Division of Water Quality, North Carolina Administrative Code Section 15A 2B .0200 (Red Book), May 1, 2007.

North Carolina Division of Water Quality, Planning Section Website, 303d and 305b Lists, [http://h2o.enr.state.nc.us/tmdl/General\\_303d.htm](http://h2o.enr.state.nc.us/tmdl/General_303d.htm).

North Carolina Division of Water Quality, 2004 Cape Fear River Basinwide Assessment Report.

Pi-Erh Lin, Duane Meeter, and Xu-Feng Niu, A Nonparametric Procedure for Listing and Delisting Impaired Waters Based on Criterion Exceedances, Florida State University, Tallahassee, FL., October 2000.