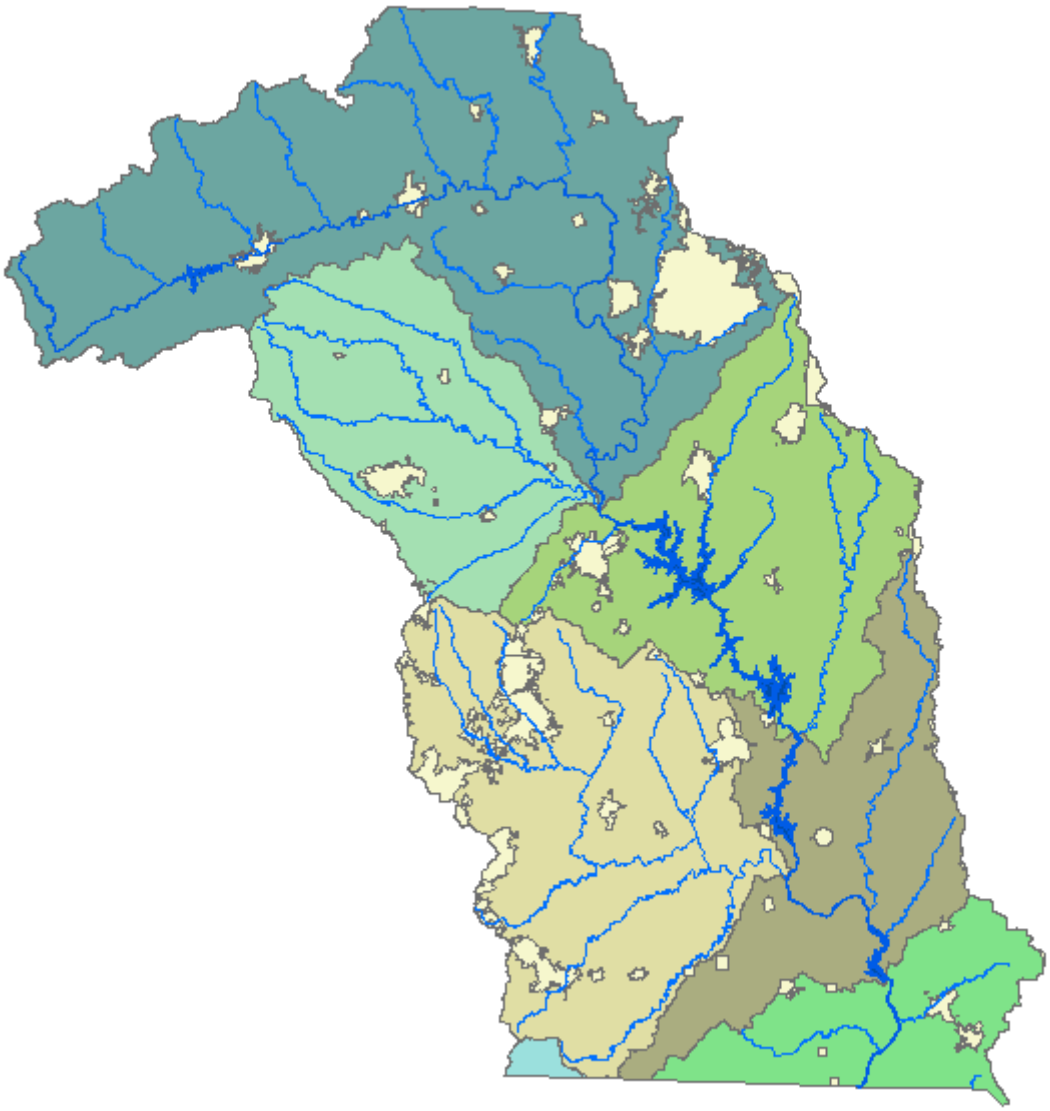

# Yadkin-Pee Dee River Basin
# Ambient Monitoring System Report

January 1, 2007 through December 31, 2011

Prepared by:

The North Carolina Department of Environment and Natural Resources
Division of Water Quality
Environmental Sciences Section

For more information on the Ambient Monitoring System
and electronic copies of this publication:

http://portal.ncdenr.org/web/wq/ess/eco/ams

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Suggested citation:
North Carolina Division of Water Quality. 2012. Yadkin-Pee Dee River Basin Ambient Monitoring System Report. Raleigh, North Carolina: North Carolina Department of Environment and Natural Resources.

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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 state's 303(d) listing methodology for this purpose (http://portal.ncdenr.org/web/wq/ps/mtu/assessment).

# TABLES



# FIGURES



# ACRONYMS

°C – degrees Celsius
colonies/100 mL – colonies [of bacteria] per 100 milliliters
AMS – Ambient Monitoring System
DO – dissolved oxygen
DWQ – Division of Water Quality
EL – evaluation level
EPA – Environmental Protection Agency
HUC – hydrologic unit code
mg/L – milligrams per liter
NC – North Carolina
NCAC – North Carolina Administrative Code
NCRWQP – North Carolina Recreational Water Quality Program
NTU – nephelometric turbidity units
RAMS – Random Ambient Monitoring System
SOP – standard operating procedure
SR – secondary road
SSE – statistically significant exceedance
SU – standard units
TMDL – total maximum daily load
µg/L – micrograms per liter
µmhos/cm – micro-ohms per centimeter (equivalent to µS/cm, microsiemens per centimeter)
US – United States
µS/cm – microsiemens per centimeter (equivalent to µmhos/cm, micro-ohms per centimeter)
USGS – United States Geological Survey

## 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, 2007 through December 31, 2011) chemical and physical measurements were obtained by the NC Division of Water Quality (DWQ) from forty stations located throughout the Yadkin-Pee Dee River Basin. The Yadkin-Pee Dee River Basin Association (YPDRBA) collected chemical and physical measurements from 75 stations during the same five-year timeframe. Twelve of these stations were monitored by both the DWQ and the YPDRBA.

The DWQ uses a ten percent criterion to determine whether a water body is meeting applicable water quality standards (NC Division of Water Quality, 2012). The water quality evaluation level (EL) for a given parameter may be an ecological evaluation level, a narrative or numeric standard, or an action level as specified in 15A NCAC 2B .0200. If more than 10% of the monitoring results exceed the EL in question then the water body is not meeting the standard. In order to evaluate water quality results, a minimum of ten observations is desired.

For this report, if at least 10 results per parameter were collected for a given site, the results were compared to water quality evaluation levels. 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 EL, a binomial statistical test was employed to determine the level of statistical confidence associated with the conclusion that the results truly exceeded the 10% criterion. If at least 95% confidence was found that a 10% exceedance occurred, then that was termed a statistically significant exceedance (SSE). This criterion was applied to all parameters with an evaluation level, except for fecal coliform bacteria for which a 20% exceedance criterion was applied in the same way.

Table 1 provides a summary of the problem areas identified by using these criteria. While reading the table, please note the following: The majority of the parameters listed are compared directly to water quality standards. There are two exceptions, however. The fecal coliform standard requires that five samples be taken in the span of thirty days, which was not done for this data. Therefore any fecal coliform exceedances should be taken as a recommendation to collect the data required by the standard. The second exception is the dissolved oxygen (< 5 mg/L) standard which applies to all waters, but specifically to fresh waters as a daily average with at least four samples taken in one day. Since only one dissolved oxygen sample was collected per day at each station, exceedances of the 5 mg/L daily average standard at freshwater stations should be used for informational purposes only. The 4 mg/L standard applies to fresh waters as an instantaneous minimum value, and should be regarded as the primary evaluation level for freshwater stations.

All data were collected between January 1, 2007 and December 31, 2011. Stations with SSEs were found for dissolved oxygen less than 4 mg/L (three sites), dissolved oxygen less than 5 mg/L (four sites), pH (one site), chlorophyll α (two sites), turbidity (seven sites) and fecal coliform (nine sites). For all parameters, 44 additional 10 percent exceedances that were not SSEs also occurred. The results of the data analysis are displayed in tables and maps. For complete summaries on each station, reference the AMS Station Summary Sheets located in Appendix A.

**Table 1. Areas of Concern in the Yadkin-Pee Dee River Basin (page 1 of 4)**

| Station ID / Type | Location | Class | Parameter/ Evaluation Level | % Exceed | % Confid |
|---|---|---|---|---|---|
| **HUC 03040101** | | | | | |
| Q0810000 AMS | Yadkin River at US-21 Business at Elkin | C | Fecal coliform (>400 colonies/100 mL)[2] | 25.4 | 81.2 |
| Q2120000 YPDRBA | N Deep Ck at SR 1510 (Styres Mill Rd.) near Yadkinville | C | Turbidity (>50 NTU) | 15.0 | 85.8 |
| Q2135000 YPDRBA | S Deep Ck at SR 1733 (Old Stage Rd.) near Shacktown | WS-IV | Turbidity (>50 NTU) | 18.3 | >99.9 |
| Q2180000 YPDRBA | Yadkin River at US 158 at Clemmons | WS-IV | Turbidity (>50 NTU) | 23.7 | 99.8 |
| Q2510000 AMS | Salem Creek at Elledge WWTP at Winston Salem | C | Fecal coliform (>400 colonies/100 mL)[2] | 50.0 | >99.9 |
| Q2600000 AMS | Muddy Creek at SR-2995 near Muddy Creek | C | Turbidity (>50 NTU) | 16.7 | 92.7 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 46.6 | >99.9 |
| Q2720000 Colocated | Muddy Creek at SR-1485 near Winston Salem | C | Turbidity (>50 NTU) | 14.0 | 88.7 |
| Q2810000 Colocated | Yadkin River at US-64 at Yadkin College | WS-IV | Turbidity (>50 NTU) | 17.6 | 99.3 |
| **HUC 03040102** | | | | | |
| Q3460000 AMS | South Yadkin River at SR-1159 near Mocksville | WS-IV | Turbidity (>50 NTU) | 16.9 | 93.3 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 48.3 | >99.9 |
| Q3484000 AMS | Hunting Creek at SR-2115 near Harmony | WS-III | pH (<6 SU) | 11.9 | 62.3 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 20.3 | 47.4 |
| Q3720000 YPDRBA | Fourth Ck at SR 2316 (Bell Farm Rd.) near Statesville | C | Turbidity (>50 NTU) | 11.7 | 60.6 |
| Q3735000 Colocated | Fourth Creek at SR-2308 near Elmwood | C | Turbidity (>50 NTU) | 15.0 | 94.7 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 29.3 | 96.5 |
| Q3900000 YPDRBA | Third Ck at SR 2342 (Amity Hill Rd.) near Statesville | C | Turbidity (>50 NTU) | 11.7 | 60.6 |
| Q3934500 AMS | Third Creek at SR-1970 near Woodleaf | C | Turbidity (>50 NTU) | 21.7 | 99.4 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 44.1 | >99.9 |
| Q3970000 YPDRBA | S Yadkin River at US 601 near Cooleemee | C | Turbidity (>50 NTU) | 15.0 | 85.8 |
| Q4030000 YPDRBA | Second Ck at SR 1526 (Sherrills Ford Rd) near Salisbury | C | Turbidity (>50 NTU) | 13.3 | 75.2 |
| Q4120000 AMS | Second Creek at US-70 near Barber | C | Turbidity (>50 NTU) | 13.3 | 75.2 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 28.3 | 92.3 |
| Q4165000 YPDRBA | Second Ck at US 601 near Salisbury | C | Turbidity (>50 NTU) | 15.0 | 85.8 |

**Table 1 (continued). Areas of Concern in the Yadkin-Pee Dee River Basin (page 2 of 4)**

| Station ID / Type | Location | Class | Parameter/ Evaluation Level | % Exceed | % Confid |
|---|---|---|---|---|---|
| **HUC 03040103** | | | | | |
| Q4540000 Colocated | Grants Creek at SR-1915 near Salisbury | C | Fecal coliform (>400 colonies/100 mL)[2] | 25.7 | 85.8 |
| Q4660000 Colocated | Yadkin River at NC-150 near Spencer | WS-V | Turbidity (>50 NTU) | 15.7 | 96.3 |
| | | | Chlorophyll α (>40 µg/L) | 21.1 | 88.5 |
| Q5360000 AMS | Town Creek at SR-2168 near Duke | C | pH (>9 SU) | 11.7 | 60.6 |
| | | | Turbidity (>25 NTU) | 16.4 | 92.0 |
| | | | Chlorophyll α (>40 µg/L) | 44.8 | >99.9 |
| Q5750000 YPDRBA | Rich Fork Ck, SR 1755 (W. Lexington Ave.) near High Point | C | Turbidity (>50 NTU) | 11.5 | 51.1 |
| Q5780000 AMS | Rich Fork at SR-1800 near Thomasville | C | Fecal coliform (>400 colonies/100 mL)[2] | 35.6 | 99.6 |
| Q5785000 YPDRBA | Rich Fork Ck at SR 1792 (Kanoy Rd.) near High Point | C | Turbidity (>50 NTU) | 11.7 | 60.6 |
| Q5790000 YPDRBA | Rich Fork Ck at SR 2123 (Old Hwy 29) near High Point | C | Turbidity (>50 NTU) | 11.5 | 57.9 |
| Q5906000 AMS | Hamby Creek at SR-2790 near Holly Grove | C | Fecal coliform (>400 colonies/100 mL)[2] | 25.0 | 79.3 |
| Q5930000 AMS | Abbotts Creek at SR-1243 at Lexington | C | Turbidity (>50 NTU) | 13.3 | 75.2 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 20.3 | 47.4 |
| Q5970000 Colocated | Abbotts Creek at NC-47 near Cotton Grove | WS-V B | Turbidity (>50 NTU) | 10.1 | 46.8 |
| | | | Chlorophyll α (>40 µg/L) | 30.4 | >99.9 |
| Q6120000 Colocated | Yadkin River at SR-1002 at High Rock | WS-IV B | Dissolved Oxygen (<5 mg/L)[1] | 12.7 | 82.4 |
| | | | Chlorophyll α (>40 µg/L) | 22.7 | 93.8 |
| **HUC 03040104** | | | | | |
| Q7150000 AMS | Pee Dee River at NC-731 near Shankle | WS-V B | Dissolved Oxygen (<4 mg/L) | 20.7 | 98.9 |
| | | | Dissolved Oxygen (<5 mg/L)[1] | 24.1 | 99.9 |
| | | | pH (<6 SU) | 11.9 | 62.3 |
| Q9155000 AMS | Brown Creek at SR-1627 near Pinkston | C | Dissolved Oxygen (<4 mg/L) | 43.6 | >99.9 |
| | | | Dissolved Oxygen (<5 mg/L)[1] | 49.1 | >99.9 |
| Q9160000 AMS | Pee Dee River at NC-109 near Mangum | WS-V B | Dissolved Oxygen (<5 mg/L)[1] | 16.0 | 87.8 |

**Table 1 (continued). Areas of Concern in the Yadkin-Pee Dee River Basin (page 3 of 4)**

| Station ID / Type | Location | Class | Parameter/ Evaluation Level | % Exceed | % Confid |
|---|---|---|---|---|---|
| **HUC 03040105** | | | | | |
| Q7330000 Colocated | Rocky River at SR-2420 near Davidson | C | Turbidity (>50 NTU) | 11.8 | 69.8 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 38.7 | >99.9 |
| Q7450000 YPDRBA | Rocky River at US 29 near Harrisburg | C | Turbidity (>50 NTU) | 11.7 | 60.6 |
| Q7600000 YPDRBA | Rocky River at SR 1304 (Roberta Rd.) near Harrisburg | C | Turbidity (>50 NTU) | 15.0 | 85.8 |
| Q7700000 YPDRBA | Coddle Creek at SR 1304 (Roberta Rd.) near Roberta Mill | C | Turbidity (>50 NTU) | 11.7 | 60.6 |
| Q8090000 AMS | Irish Buffalo Creek at SR-1132 near Faggarts | C | Turbidity (>50 NTU) | 15.0 | 85.8 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 25.4 | 81.2 |
| Q8210000 YPDRBA | Rocky River at US 601 near Concord | C | Turbidity (>50 NTU) | 11.7 | 60.6 |
| Q8220000 AMS | Rocky River at SR-1006 near Concord | C | Turbidity (>50 NTU) | 20.0 | 98.5 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 30.5 | 96.3 |
| Q8360000 Colocated | Goose Creek at SR-1524 near Mint Hill | C | Fecal coliform (>400 colonies/100 mL)[2] | 38.2 | >99.9 |
| Q8374000 AMS | Goose Creek at SR-1547 near Brief | C | Fecal coliform (>400 colonies/100 mL)[2] | 24.0 | 71.1 |
| Q8386000 YPDRBA | N Fork Crooked Ck, SR 1520 (Indian Tr-Fairview Rd) near Monroe | C | Dissolved Oxygen (<5 mg/L)[1] | 24.1 | >99.9 |
| | | | Turbidity (>50 NTU) | 10.2 | 45.4 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 46.7 | 98.2 |
| Q8386200 YPDRBA | N Fork Crooked Ck, SR 1514 (Rocky River Rd.) near Monroe | C | Dissolved Oxygen (<5 mg/L)[1] | 13.3 | 87.7 |
| | | | Fecal coliform (>400 colonies/100 mL)[2] | 26.7 | 64.8 |
| Q8388900 YPDRBA | Crooked Ck at SR 1601 (Unionville-Brief Rd.) near Monroe | C | Dissolved Oxygen (<5 mg/L)[1] | 15.3 | 92.0 |
| | | | Turbidity (>50 NTU) | 13.3 | 75.2 |
| Q9021300 YPDRBA | Lanes Ck at SR 1005 (Landsford Rd.) near Marshville | WS-V | Dissolved Oxygen (<5 mg/L)[1] | 13.3 | 79.5 |
| Q9120000 AMS | Rocky River at SR-1935 near Norwood | C | Turbidity (>50 NTU) | 21.7 | 99.4 |

**Table 1 (continued). Areas of Concern in the Yadkin-Pee Dee River Basin (page 4 of 4)**

| Station ID / Type | Location | Class | Parameter/ Evaluation Level | % Exceed | % Confid |
|---|---|---|---|---|---|
| **HUC 03040201** | | | | | |
| Q9940000 AMS | Marks Creek at SR-1812 near Hamlet | C | Dissolved Oxygen (<4 mg/L) | 29.8 | >99.9 |
| | | | Dissolved Oxygen (<5 mg/L)[1] | 43.9 | >99.9 |
| | | | pH (<6 SU) | 38.9 | >99.9 |

Notes:
[1] Applies to saltwater (class SA, SB, and SC) primarily, and to freshwater (class B, C, and WS) as a daily average. Results are provided here for informational purposes.
[2] Fecal coliform results presented here are screening values, rather than EL exceedances, which may warrant further monitoring. See Parameters section for details on bacteriological standards and analyses.

## 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 targeted locations were chosen for specific reasons, such as to characterize the effects of point source dischargers and nonpoint sources (e.g. agriculture, animal operations and urbanization) within watersheds, to determine the quality of water in water supplies or to elucidate changes over time (i.e. trends).

Also within the Yadkin-Pee Dee River basin are monitoring stations maintained and sampled by the Yadkin-Pee Dee River Basin Association (YPDRBA). The YPDRBA is an organization of municipalities and industries that release treated wastewater into the basin. Since its inception in 1998, the YPDRBA has taken an active role in monitoring water quality within the basin. As an alternative to typical state and federally required in-stream National Pollutant Discharge Elimination System (NPDES) permit monitoring requirements, the members of the YPDRBA collect water samples from 75 monitoring stations throughout the basin, under agreement with the DWQ. Twelve of the stations monitored by the YPDRBA are also monitored by the DWQ.

The monitoring 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. Core parameters are determined by freshwater or saltwater water body 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://portal.ncdenr.org/web/wq/ps/csu. A summary of selected water quality standards are listed in Table 3.

Water quality data are evaluated in five year periods. This basin assessment report summarizes data collected from January 1, 2007 through December 31, 2011. Some stations have little or no data for one or more parameters over the period. However, for the purpose of standardization, data summaries for each station are included in this report. The locations of the sampling stations are depicted in Figure 1 and listed in Table 4.

In January 2007 the DWQ began assessing water quality in NC from a series of randomly selected sites. A description of the Random Ambient Monitoring System (RAMS) can be found here: http://portal.ncdenr.org/web/wq/ess/eco/rams. There are currently five RAMS sites in the Yadkin-Pee Dee river basin which are being sampled during 2011 and 2012. Because the basinwide reports assess in five-year windows and RAMS stations assess water quality in two-year windows, the RAMS data are not included in the ambient reports. The RAMS data will be analyzed on a statewide basis and discussed in a separate report.

## Table 2. Parameters collected for the Ambient Monitoring System

| Parameter | NC Administrative Code References for Standards | |
|---|---|---|
| | **Freshwater** | **Saltwater** |
| Dissolved oxygen (s) | 15A NCAC 2B.0211(3)(b) | 15A NCAC 2B.0220(3)(b) |
| pH (s) | 15A NCAC 2B.0211(3)(g) | 15A NCAC 2B.0220(3)(g) |
| Specific conductance | None | None |
| Temperature (s) | 15A NCAC 2B.0211(3)(j) | 15A NCAC 2B.0220(3)(k) |
| Total suspended solids | effluent limits only, 15A NCAC 2B.0224(1)(b)(ii) | None |
| Turbidity (s) | 15A NCAC 2B.0211(3)(k) | 15A NCAC 2B.0220(3)(l) |
| Fecal coliform bacteria (s) | 15A NCAC 2B.0211(3)(e); 15A NCAC 2B.0219(3)(b) | 15A NCAC 2B.0221(3)(d) |
| Nutrients: | | |
| - Total phosphorus | None | None |
| - Ammonia as N | None | None |
| - Total Kjeldahl as N | None | None |
| - Nitrate+nitrite as N (s) | 15A NCAC 2B.0212(3)(h)(i)(E) | None |
| Chlorophyll *a* (s) | 15A NCAC 2B.0211(3)(a) | 15A NCAC 2B.0220(3)(a) |

Notes:
An (s) indicates the parameter has a numeric standard.
Chlorophyll *a* and nutrient sampling are only done in areas of concern, such as NSW, estuaries, lakes and areas with known enrichment issues.

## Table 3. Selected Water Quality Standards[1]

| | Standards for All Freshwater | | | Standards to Support Additional Uses | | |
|---|---|---|---|---|---|---|
| **Parameter** | **Aquatic Life** | **Human Health** | **Water Supply Classifications** | **Trout Water** | **HQW** | **Swamp Waters** |
| Chloride (mg/L) | 230 | - | 250 | - | - | - |
| Chlorophyll *a* (µg/L) | 40 | - | - | 15 | - | - |
| Coliform, fecal (MFFCC/100 mL)[2] | - | 200 / 400[2] | - | - | - | - |
| Dissolved oxygen (mg/L) | 4.0 / 5.0[3] | - | - | 6.0 | 6.0 | - |
| Hardness, total (mg/L) | - | - | 100 | - | - | - |
| Nitrate nitrogen (mg/L) | - | - | 10 | - | - | - |
| pH (standard units) | 6.0 - 9.0[4] | - | - | - | - | 4.3[4] |
| Solids, total suspended (mg/L) | - | - | - | 10 HQW[5] | 20 (10 Tr)[5] | - |
| Turbidity (NTU) | 25 / 50[6] | - | - | 10 | - | - |

Notes:
- There is not a numeric standard for this parameter in this water use category.
[1]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. May 1, 2007).
[2]MFFCC = Membrane filter fecal coliform count per 100 mL of sample. Fecal coliform shall not exceed a geometric mean of 200 MFFCC/100 mL, nor exceed 400 MFFCC/100 mL in over 20 percent of samples. Evaluation of each standard requires a minimum of five samples in a 30-day period.
[3]An instantaneous reading may be as low as 4.0 mg/L; the daily average must be 5.0 mg/L or more.
[4]Designated swamp waters may have pH as low as 4.3 if due to natural conditions.
[5]For effluent limits only, see 15A NCAC 2B.0224(1)(b)(ii).
[6]The 50 NTU standard applies to streams not designated as trout waters; the 25 NTU standard applies to lakes and reservoirs not designated as trout waters.

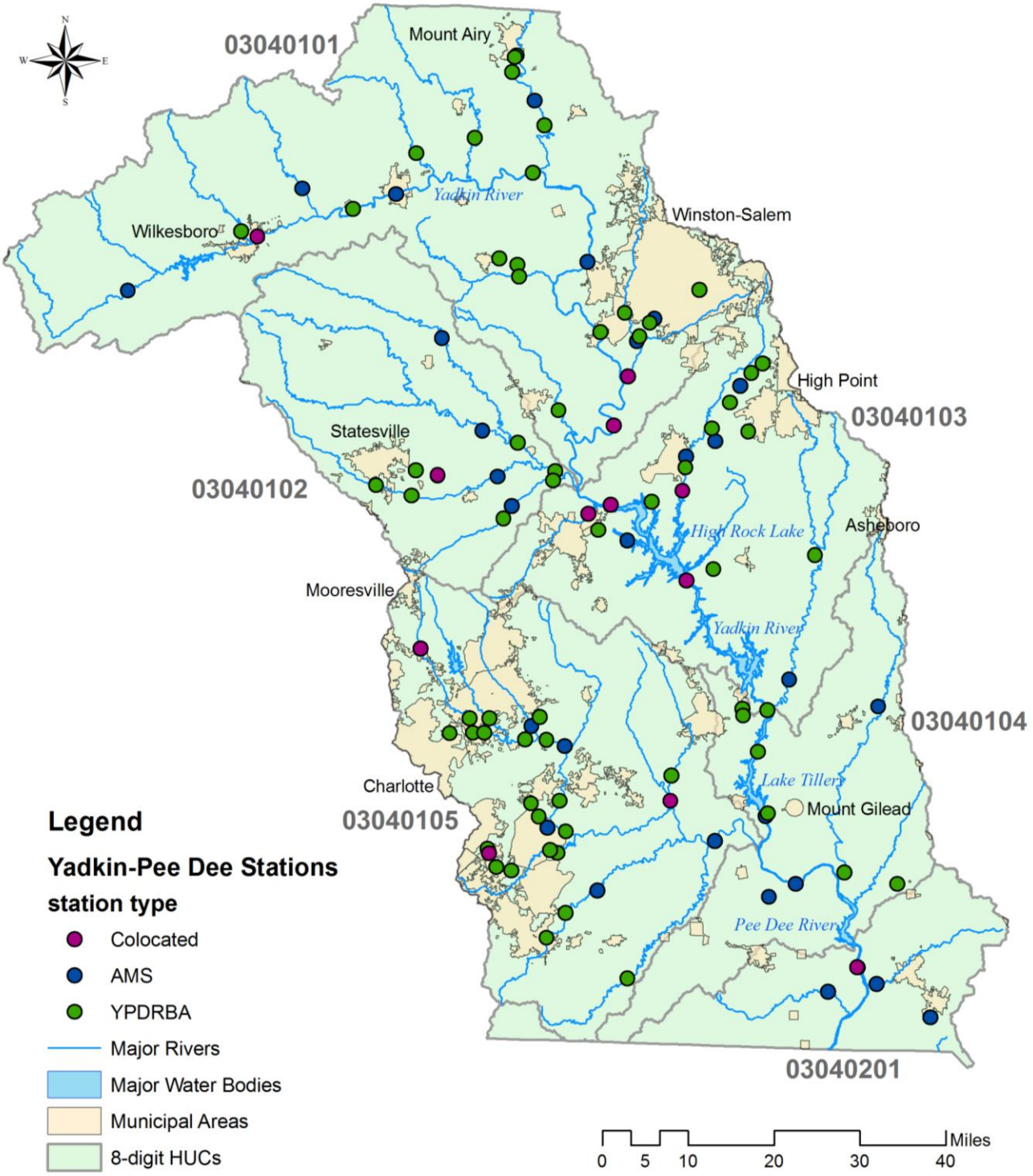


**Figure 1. AMS and YPDRBA Monitoring Stations in the Yadkin-Pee Dee River Basin**

**Table 4. Monitoring stations in the Yadkin-Pee Dee River Basin, 2007 – 2011 (page 1 of 3)**

| STATION TYPE | STATION NUMBER | LOCATION | CLASS | LATITUDE | LONGITUDE |
|---|---|---|---|---|---|
| **HUC 03040101** | | | | | |
| AMS | Q0220000 | Elk Creek at NC-268 at Elkville | B ORW | 36.0695 | -81.4024 |
| YPDRBA | Q0360000 | Reddies River at SR 1517 at N. Wilkesboro | WS-II HQW | 36.1743 | -81.1693 |
| Colocated | Q0450000 | Yadkin River at Bus NC 421 in N. Wilkesboro | C | 36.1659 | -81.1344 |
| AMS | Q0660000 | Roaring River at SR 1990 near Roaring River | B | 36.2480 | -81.0430 |
| YPDRBA | Q0720000 | Yadkin River at SR 2303 (Clingman Rd.) near Ronda | WS-IV | 36.2154 | -80.9367 |
| AMS | Q0810000 | Yadkin River at US-21 Business at Elkin | C | 36.2418 | -80.8473 |
| YPDRBA | Q1065000 | Mitchell River at SR 1001 near North Elkin | C | 36.3114 | -80.8066 |
| YPDRBA | Q1215000 | Fisher River at NC 268 near Fairview | C | 36.3395 | -80.6852 |
| YPDRBA | Q1350000 | Yadkin River at SR 1003 near Siloam | C | 36.2824 | -80.5622 |
| YPDRBA | Q1500000 | Ararat River at NC 52 near Mt Airy | C | 36.4799 | -80.6004 |
| YPDRBA | Q1550000 | Ararat River at WWTP Road at Mt. Airy WWTP | C | 36.4770 | -80.6045 |
| YPDRBA | Q1725000 | Ararat River at SR 2119 near Mt Airy | C | 36.4517 | -80.6092 |
| AMS | Q1780000 | Ararat River at SR-2019 at Ararat | C | 36.4036 | -80.5611 |
| YPDRBA | Q1935000 | Ararat River at SR 2044 near Pilot Mountain | C | 36.3626 | -80.5394 |
| AMS | Q2040000 | Yadkin River at SR-1605 at Enon | WS-IV | 36.1328 | -80.4454 |
| YPDRBA | Q2090000 | N Deep Creek at SR 1605 near Yadkinville | C | 36.1362 | -80.6300 |
| YPDRBA | Q2120000 | N Deep Creek at SR 1510 near Yadkinville | C | 36.1259 | -80.5918 |
| YPDRBA | Q2135000 | S Deep Creek at SR 1733 near Shacktown | WS-IV | 36.1065 | -80.5877 |
| YPDRBA | Q2180000 | Yadkin River at US 158 at Clemmons | WS-IV | 36.0144 | -80.4164 |
| YPDRBA | Q2291000 | Muddy Creek at I40 near Clemmons | C | 36.0470 | -80.3662 |
| YPDRBA | Q2479455 | Salem Creek at SR 2740 near Winston Salem | C | 36.0884 | -80.2121 |
| AMS | Q2510000 | Salem Creek at Elledge WWTP at Winston Salem | C | 36.0388 | -80.3042 |
| YPDRBA | Q2540000 | Salem Creek at SR 1120 at Winston Salem | C | 36.0312 | -80.3137 |
| YPDRBA | Q2570000 | Salem Creek at SR 2991 near Winston Salem | C | 36.0086 | -80.3353 |
| AMS | Q2600000 | Muddy Creek at SR-2995 near Muddy Creek | C | 36.0000 | -80.3400 |
| Colocated | Q2720000 | Muddy Creek at SR 1485 near Winston Salem | C | 35.9402 | -80.3580 |
| Colocated | Q2810000 | Yadkin River at US 64 at Yadkin College | WS-IV CA | 35.8570 | -80.3863 |
| YPDRBA | Q3105000 | Dutchman Creek at US 64 near MoCreeksville | C | 35.8811 | -80.5012 |
| **HUC 03040102** | | | | | |
| AMS | Q3460000 | South Yadkin River at SR-1159 near Mocksville | WS-IV | 35.8448 | -80.6591 |
| AMS | Q3484000 | Hunting Creek at SR-2115 near Harmony | WS-III | 36.0002 | -80.7456 |
| YPDRBA | Q3555000 | Bear Creek at SR 1116 near Coleemee | WS-IV | 35.8256 | -80.5852 |
| YPDRBA | Q3720000 | Fourth Creek at SR 2316 near Statesville | C | 35.7761 | -80.7958 |
| Colocated | Q3735000 | Fourth Creek at SR 2308 near Elmwood | C | 35.7685 | -80.7499 |
| YPDRBA | Q3900000 | Third Creek at SR 2342 near Statesville | C | 35.7492 | -80.8775 |
| YPDRBA | Q3932000 | Third Creek at SR 2359 near Statesville | C | 35.7330 | -80.8039 |
| AMS | Q3934500 | Third Creek at SR-1970 near Woodleaf | C | 35.7674 | -80.6261 |
| YPDRBA | Q3970000 | S Yadkin River at US 601 near Cooleemee | C | 35.7784 | -80.5067 |
| YPDRBA | Q4030000 | Second Creek at SR 1526 near Salisbury | C | 35.6970 | -80.6117 |
| AMS | Q4120000 | Second Creek at US-70 near Barber | C | 35.7184 | -80.5954 |
| YPDRBA | Q4165000 | Second Creek at US 601 near Salisbury | C | 35.7625 | -80.5108 |

**Table 4 (continued). Monitoring stations in the Yadkin-Pee Dee River Basin (page 2 of 3)**

| STATION TYPE | STATION NUMBER | LOCATION | CLASS | LATITUDE | LONGITUDE |
|---|---|---|---|---|---|
| **HUC 03040103** | | | | | |
| Colocated | Q4540000 | Grants Creek at SR 1915 near Salisbury | C | 35.7072 | -80.4361 |
| Colocated | Q4660000 | Yadkin River at NC 150 near Spencer | WS-V | 35.7230 | -80.3905 |
| YPDRBA | Q5135000 | Swearing Creek at SR 1272 near Linwood | C | 35.7291 | -80.3057 |
| YPDRBA | Q5210000 | Town Creek at SR 1915 (Andrew St.) at Spencer | C | 35.6798 | -80.4155 |
| AMS | Q5360000 | Town Creek at SR-2168 near Duke | C | 35.6635 | -80.3542 |
| YPDRBA | Q5745000 | Rich Fork Creek at SR 1757 near High Point | C | 35.9651 | -80.0787 |
| YPDRBA | Q5750000 | Rich Fork Creek at SR 1755 near High Point | C | 35.9489 | -80.1017 |
| AMS | Q5780000 | Rich Fork at SR-1800 near Thomasville | C | 35.9267 | -80.1246 |
| YPDRBA | Q5785000 | Rich Fork Creek at SR 1792 near High Point | C | 35.8984 | -80.1454 |
| YPDRBA | Q5790000 | Rich Fork Creek at SR 2123 near High Point | C | 35.8543 | -80.1822 |
| YPDRBA | Q5860000 | Hamby Creek at SR 2775 near Thomasville | C | 35.8501 | -80.1064 |
| AMS | Q5906000 | Hamby Creek at SR-2790 near Holly Grove | C | 35.8324 | -80.1747 |
| AMS | Q5930000 | Abbotts Creek at SR-1243 at Lexington | C | 35.8063 | -80.2349 |
| YPDRBA | Q5940000 | Abbotts Creek at I 85 near Lexington | C | 35.7873 | -80.2357 |
| Colocated | Q5970000 | Abbotts Creek at NC 47 near Cotton Grove | WS-V, B | 35.7479 | -80.2414 |
| Colocated | Q6120000 | Yadkin River at SR 1002 at High Rock | WS-IV, B; CA | 35.5968 | -80.2313 |
| YPDRBA | Q6140000 | LiCreek Creek at SR 1002 near Healing Springs | WS-IV | 35.6164 | -80.1754 |
| YPDRBA | Q6705000 | Uwharrie River at NC 49 near Farmer | C | 35.6421 | -79.9650 |
| AMS | Q6810000 | Uwharrie River at NC-109 near Uwharrie | WS-IV B | 35.4312 | -80.0164 |
| **HUC 03040104** | | | | | |
| YPDRBA | Q6930000 | Little Mountain Creek at NC 1720 near Badin | WS-IV | 35.3812 | -80.1129 |
| YPDRBA | Q6950000 | Little Mountain Creek at NC 1798 near Badin | WS-IV | 35.3693 | -80.1109 |
| YPDRBA | Q6960000 | Pee Dee River at Boat Ramp at Morrow Mountain SP | WS-IV, B; CA | 35.3797 | -80.0613 |
| YPDRBA | Q7030000 | Pee Dee River at NC 24, 27 and 73 near Albemarle | WS-IV, B; CA | 35.3083 | -80.0797 |
| AMS | Q7150000 | Pee Dee River at NC-731 near Shankle | WS-V B | 35.2005 | -80.0625 |
| YPDRBA | Q7210000 | Clarks Creek at SR 1187 near Mount Gilead | C | 35.2044 | -80.0575 |
| AMS | Q9155000 | Brown Creek at SR-1627 near Pinkston | C | 35.0637 | -80.0528 |
| AMS | Q9160000 | Pee Dee River at NC-109 near Mangum | WS-V B | 35.0859 | -79.9989 |
| AMS | Q9200000 | Little River at SR-1340 near Star | C HQW | 35.3872 | -79.8315 |
| YPDRBA | Q9320000 | Little River at SR 1148 near Ellerbe | WS-IV | 35.1063 | -79.8989 |
| YPDRBA | Q9340000 | Toms Branch at SR 1310 near Ellerbe | C | 35.0878 | -79.7894 |

**Table 4 (continued). Monitoring stations in the Yadkin-Pee Dee River Basin (page 3 of 3)**

| STATION TYPE | STATION NUMBER | LOCATION | CLASS | LATITUDE | LONGITUDE |
|---|---|---|---|---|---|
| **HUC 03040105** | | | | | |
| Colocated | Q7330000 | Rocky River at SR 2420 near Davidson | C | 35.4749 | -80.7795 |
| YPDRBA | Q7450000 | Rocky River at US 29 near Harrisburg | C | 35.3590 | -80.6751 |
| YPDRBA | Q7550000 | Mallard Creek at Pavillion Rd. near Harrisburg | C | 35.3323 | -80.7157 |
| YPDRBA | Q7570000 | Mallard Creek at SR 1300 near Harrisburg | C | 35.3338 | -80.6682 |
| YPDRBA | Q7600000 | Rocky River at SR 1304 near Harrisburg | C | 35.3345 | -80.6444 |
| YPDRBA | Q7700000 | Coddle Creek at SR 1304 near Roberta Mill | C | 35.3592 | -80.6347 |
| YPDRBA | Q7780000 | Rocky River at SR 1132 near Harrisburg | C | 35.3244 | -80.5603 |
| AMS | Q8090000 | Irish Buffalo Creek at SR-1132 near Faggarts | C | 35.3473 | -80.5477 |
| YPDRBA | Q8200000 | Cold Water Creek at SR 1132 near Concord | C | 35.3624 | -80.5303 |
| YPDRBA | Q8210000 | Rocky River at US 601 near Concord | C | 35.3245 | -80.5154 |
| AMS | Q8220000 | Rocky River at SR-1006 near Concord | C | 35.3140 | -80.4786 |
| YPDRBA | Q8341000 | Clear Creek at SR 1118 near Brief | C | 35.2163 | -80.5456 |
| YPDRBA | Q8342000 | Clear Creek at US 601 near Brief | C | 35.1947 | -80.5293 |
| YPDRBA | Q8355000 | Rocky River at SR 1114 near Midland | C | 35.2212 | -80.4871 |
| YPDRBA | Q8359500 | Goose Creek in Hunley Creek. Subdivision | C | 35.1386 | -80.6336 |
| Colocated | Q8360000 | Goose Creek at SR 1524 near Mint Hill | C | 35.1309 | -80.6311 |
| AMS | Q8374000 | Goose Creek at SR-1547 near Brief | C | 35.1759 | -80.5113 |
| YPDRBA | Q8385000 | Rocky River at SR 1606 near Monroe | C | 35.1699 | -80.4728 |
| YPDRBA | Q8386000 | N Fork Crooked Creek at SR 1520 near Monroe | C | 35.1079 | -80.6154 |
| YPDRBA | Q8386200 | N Fork Crooked Creek at SR 1514 near Monroe | C | 35.1024 | -80.5843 |
| YPDRBA | Q8388000 | Crooked Creek at NC 218 near Monroe | C | 35.1330 | -80.4896 |
| YPDRBA | Q8388900 | Crooked Creek at SR 1601 near Monroe | C | 35.1381 | -80.5054 |
| YPDRBA | Q8715000 | Long Creek at SR 1968 near Oakboro | C | 35.2667 | -80.2569 |
| Colocated | Q8720000 | Long Creek at SR 1917 near Rocky River Springs | C | 35.2239 | -80.2586 |
| YPDRBA | Q8800000 | Richardson Creek at SR 1751 at Monroe | C | 34.9897 | -80.5097 |
| YPDRBA | Q8820000 | Richardson Creek at SR 1006 near Monroe | C | 35.0322 | -80.4716 |
| AMS | Q8917000 | Richardson Creek at SR-1649 near Fairfield | C | 35.0711 | -80.4066 |
| YPDRBA | Q9021300 | Lanes Creek at SR 1005 near Marshville | WS-V | 34.9232 | -80.3422 |
| AMS | Q9120000 | Rocky River at SR-1935 near Norwood | C | 35.1569 | -80.1658 |
| **HUC 03040201** | | | | | |
| Colocated | Q9400000 | Pee Dee River at US 74 nr Rockingham | C | 34.9464 | -79.8706 |
| AMS | Q9660000 | Hitchcock Creek at SR-1109 at Cordova | C | 34.9184 | -79.8300 |
| AMS | Q9777000 | Jones Creek at NC-145 near Pee Dee | C | 34.9043 | -79.9305 |
| AMS | Q9940000 | Marks Creek at SR-1812 near Hamlet | C | 34.8626 | -79.7191 |

## DATA ASSESSMENT AND INTERPRETATION

Monitoring and sampling results considered in this report represent samples collected or measurements taken at less than one-meter depth. The AMS and YPDRBA monitoring data are available online from the US Environmental Protection Agency's Storage and Retrieval (STORET) Data Warehouse. Information, links and instructions for accessing STORET data are provided on the DWQ website: http://portal.ncdenr.org/web/wq/storethome.

Percentile statistics were calculated using JMP statistical software (version 8.0.2; SAS Institute, Cary, NC). Values less than the minimum reporting level (non-detects) were evaluated as equal to the reporting level.

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

Historically, the DWQ has used guidance provided by the US Environmental Protection Agency (EPA) for determining when the number of results that exceed a water quality standard indicate potential water quality issues (US Environmental Protection Agency, 1997). The EPA has suggested that management actions be implemented when more than ten percent of the results exceed a water quality standard. This interpretation is the same whether two out of ten, six out of fifty, or 26 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. Therefore, applying the raw-score approach to small sample sizes could result in an impairment listing of a stream that is not really impaired.

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 ten percent. Calculating the minimum number of exceedances needed for a particular sample size was done using the BINOMDIST function in Microsoft Excel®. This statistical function suggests that at least three exceedances need to be observed in a sample of ten 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 two exceedances out of ten (74 percent confidence) than when there are three exceedances out of ten (93 percent confidence) (Table 5).

## Table 5. 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 | 18 |
| 10 | 35% | 74% | 93% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | | | | | | | | |
| 12 | 28% | 66% | 89% | 97% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | | | | | | |
| 14 | 23% | 58% | 84% | 96% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | | | | |
| 16 | 19% | 51% | 79% | 93% | 98% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | | |
| 18 | 15% | 45% | 73% | 90% | 97% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 20 | 12% | 39% | 68% | 87% | 96% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 22 | 10% | 34% | 62% | 83% | 94% | 98% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 24 | 8% | 29% | 56% | 79% | 91% | 97% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 26 | 6% | 25% | 51% | 74% | 89% | 96% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 28 | 5% | 22% | 46% | 69% | 86% | 94% | 98% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 30 | 4% | 18% | 41% | 65% | 82% | 93% | 97% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 32 | 3% | 16% | 37% | 60% | 79% | 91% | 96% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 34 | 3% | 13% | 33% | 55% | 75% | 88% | 95% | 98% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 36 | 2% | 11% | 29% | 51% | 71% | 85% | 94% | 98% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 38 | 2% | 10% | 25% | 46% | 67% | 83% | 92% | 97% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 40 | 1% | 8% | 22% | 42% | 63% | 79% | 90% | 96% | 98% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 42 | 1% | 7% | 20% | 38% | 59% | 76% | 88% | 95% | 98% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 44 | 1% | 6% | 17% | 35% | 55% | 73% | 85% | 93% | 97% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 46 | 1% | 5% | 15% | 31% | 51% | 69% | 83% | 92% | 96% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 48 | 1% | 4% | 13% | 28% | 47% | 65% | 80% | 90% | 95% | 98% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 50 | 1% | 3% | 11% | 25% | 43% | 62% | 77% | 88% | 94% | 98% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 52 | 0% | 3% | 10% | 22% | 40% | 58% | 74% | 86% | 93% | 97% | 99% | 100% | 100% | 100% | 100% | 100% | 100% | 100% |
| 54 | 0% | 2% | 8% | 20% | 36% | 54% | 71% | 83% | 91% | 96% | 98% | 99% | 100% | 100% | 100% | 100% | 100% | 100% |
| 56 | 0% | 2% | 7% | 18% | 33% | 51% | 67% | 81% | 90% | 95% | 98% | 99% | 100% | 100% | 100% | 100% | 100% | 100% |
| 58 | 0% | 2% | 6% | 16% | 30% | 47% | 64% | 78% | 88% | 94% | 97% | 99% | 100% | 100% | 100% | 100% | 100% | 100% |
| 60 | 0% | 1% | 5% | 14% | 27% | 44% | 61% | 75% | 86% | 93% | 97% | 99% | 99% | 100% | 100% | 100% | 100% | 100% |
| 62 | 0% | 1% | 5% | 12% | 24% | 40% | 57% | 72% | 84% | 91% | 96% | 98% | 99% | 100% | 100% | 100% | 100% | 100% |
| 64 | 0% | 1% | 4% | 11% | 22% | 37% | 54% | 69% | 81% | 90% | 95% | 98% | 99% | 100% | 100% | 100% | 100% | 100% |
| 66 | 0% | 1% | 3% | 9% | 20% | 34% | 51% | 66% | 79% | 88% | 94% | 97% | 99% | 99% | 100% | 100% | 100% | 100% |
| 68 | 0% | 1% | 3% | 8% | 18% | 31% | 47% | 63% | 76% | 86% | 93% | 96% | 98% | 99% | 100% | 100% | 100% | 100% |
| 70 | 0% | 1% | 2% | 7% | 16% | 29% | 44% | 60% | 74% | 84% | 91% | 96% | 98% | 99% | 100% | 100% | 100% | 100% |
| 72 | 0% | 0% | 2% | 6% | 14% | 26% | 41% | 57% | 71% | 82% | 90% | 95% | 97% | 99% | 100% | 100% | 100% | 100% |
| 74 | 0% | 0% | 2% | 5% | 13% | 24% | 38% | 54% | 68% | 80% | 88% | 94% | 97% | 99% | 99% | 100% | 100% | 100% |
| 76 | 0% | 0% | 1% | 5% | 11% | 22% | 35% | 51% | 65% | 77% | 86% | 93% | 96% | 98% | 99% | 100% | 100% | 100% |
| 78 | 0% | 0% | 1% | 4% | 10% | 20% | 33% | 48% | 62% | 75% | 85% | 91% | 95% | 98% | 99% | 100% | 100% | 100% |
| 80 | 0% | 0% | 1% | 4% | 9% | 18% | 30% | 45% | 59% | 72% | 83% | 90% | 95% | 97% | 99% | 99% | 100% | 100% |
| 82 | 0% | 0% | 1% | 3% | 8% | 16% | 28% | 42% | 56% | 70% | 81% | 88% | 94% | 97% | 98% | 99% | 100% | 100% |
| 84 | 0% | 0% | 1% | 3% | 7% | 14% | 25% | 39% | 53% | 67% | 78% | 87% | 93% | 96% | 98% | 99% | 100% | 100% |
| 86 | 0% | 0% | 1% | 2% | 6% | 13% | 23% | 36% | 51% | 64% | 76% | 85% | 91% | 95% | 98% | 99% | 100% | 100% |
| 88 | 0% | 0% | 1% | 2% | 5% | 12% | 21% | 34% | 48% | 62% | 74% | 83% | 90% | 95% | 97% | 99% | 99% | 100% |
| 90 | 0% | 0% | 0% | 2% | 5% | 10% | 19% | 31% | 45% | 59% | 71% | 81% | 89% | 94% | 97% | 98% | 99% | 100% |
| 92 | 0% | 0% | 0% | 1% | 4% | 9% | 17% | 29% | 42% | 56% | 69% | 79% | 87% | 93% | 96% | 98% | 99% | 100% |
| 94 | 0% | 0% | 0% | 1% | 4% | 8% | 16% | 27% | 39% | 53% | 66% | 77% | 86% | 92% | 95% | 98% | 99% | 99% |
| 96 | 0% | 0% | 0% | 1% | 3% | 7% | 14% | 24% | 37% | 50% | 64% | 75% | 84% | 90% | 95% | 97% | 99% | 99% |
| 98 | 0% | 0% | 0% | 1% | 3% | 6% | 13% | 22% | 34% | 48% | 61% | 73% | 82% | 89% | 94% | 97% | 98% | 99% |
| 100 | 0% | 0% | 0% | 1% | 2% | 6% | 12% | 21% | 32% | 45% | 58% | 70% | 80% | 88% | 93% | 96% | 98% | 99% |

Note: Shaded entries indicate at least 95% confidence that at least 10% of the possible samples exceed the standard/evaluation level. Values shown as 100% are rounded from confidence levels of 99.5% or greater.

### Methods Used to Summarize Results

Methods used to summarize the results in this report encompass both tabular and spatial formats. Individual summary sheets for each station provide details on station location and 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 more than ten percent 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.

### Use Support Assessment Considerations

1) The freshwater dissolved oxygen concentrations of 5.0 mg/L and 4.0 mg/L are presented as evaluation levels. Instantaneous concentrations of 4.0 mg/L or less (5.0 mg/L in salt water) are in violation of the standard unless caused by natural (e.g. swampy) conditions. The 5.0 mg/L evaluation level is based upon a freshwater standard which specifies "not less than a daily average of 5.0 mg/L" (15A NCAC 2B.0211(3)(b)).
2) The geometric mean and percentage of results greater than evaluation level threshold values were calculated for fecal coliform results for each station as appropriate for stream class.
3) The accuracy of results is limited by natural variation within a site and by the abilities of analytical equipment. Results that are returned at very close to evaluation levels may be within the margin of error for the accuracy of field equipment or laboratory instrumentation. Meters commonly used for in-field measurements of temperature, specific conductance, dissolved oxygen, and pH of surface waters at AMS stations may have manufacturer accuracy specifications of up to ± 0.2 °C, ± 1% of reading or ± 1 µS/cm (whichever is greater), ± 0.6 mg/L, and ± 0.2 standard pH units, respectively. Results from laboratory analyses are considered reliable when they are at or above practical quantitation limits (PQLs, available at http://portal.ncdenr.org/web/wq/lab/staffinfo/techassist) and meet laboratory quality assurance protocols, including a defined acceptable margin of error (http://portal.ncdenr.org/web/wq/lab/qualityassurance).

Specific information on water quality standards and action levels can be found in 15A NCAC 2B.0200 (available at http://portal.ncdenr.org/web/wq/ps/csu/rules).

## 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 source discharges. Water quality standards for dissolved oxygen vary depending on the classification of the body of water. For fresh waters, 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.*

The surface waters in the Yadkin-Pee Dee basin generally displayed dissolved oxygen levels above the 4.0 mg/L evaluation level. Values below the EL were measured more than ten percent of the time at three stations in the lower portion of the basin within North Carolina: Q9155000 and Q9940000 on the tributaries Brown Creek and Marks Creek, respectively, and Q7150000 on the Pee Dee River below Lake Tillery (Figure 2, Table 6).

**pH**

The scale for measuring pH is logarithmic (i.e. a pH of 8.0 is ten times less concentrated in hydrogen ions than a pH of 7.0). A pH value of 7.0 Standard Units (SU) is neutral, while lower values are more acidic and higher values are more basic. The pH of ambient waters varies naturally depending upon interaction with soils and in-stream constituents, upstream inputs, and conditions in the surrounding environment. Point source discharges can also influence the pH of a stream. Values much lower than 7.0 SU may be found in waters rich in dissolved organic matter (e.g. swamp lands). Values much greater than 7.0 SU may be observed during algal blooms. The water quality standards for pH in fresh waters 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.

The lower pH evaluation level was exceeded more than ten percent of the time at three stations in the Yadkin-Pee Dee river basin during the 2007 – 2011 assessment timeframe. The stations were located in three different 8-digit hydrologic units: Q3484000 (Hunting Creek at SR-2115 near Harmony) in 03040102, Q7150000 (Pee Dee River at NC-731 near Shankle) in 03040104, and Q9940000 (Marks Creek at SR-1812 near Hamlet) in 03040201. The higher pH EL was exceeded more than ten percent of the time at only one station: Q5360000 (Town Creek at SR-2168 near Duke) in 03040103.

**Specific Conductance**

Specific conductance is a measure of the ability of water to conduct an electric current. It is reported in microsiemens per centimeter (µS/cm) at 25 °C. The presence of ions and temperature are major factors in the ability of water to conduct a current. Clean freshwater has a low specific conductance, whereas high specific conductance values 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.

Specific conductance 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 specific conductance.

**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.

Turbidity evaluation levels were exceeded frequently in the Yadkin-Pee Dee river basin during the assessment timeframe. The EL of 50 NTU (25 NTU at Q5360000, which is a reservoir station on High Rock Lake) was exceeded more than ten percent of the time at 32 of the 103 monitoring stations in the basin. Six stations returned no results exceeding the EL.

**Metals**

A number of metals are essential micronutrients for the support of aquatic life. However, there are threshold concentrations over which metals can be harmful. Traditionally, the DWQ has considered total metals concentrations in surface waters to evaluate potential adverse effects on human and aquatic life. However, metals can exist in many forms within the water column. Scientific investigation has revealed that different forms present different levels of risk to aquatic organisms (US Environmental Protection Agency, 2007). Therefore, as of May 2007, the DWQ suspended routine collection of total metals at AMS stations, and is currently reviewing water quality standards for metals.

The stations in the Yadkin-Pee Dee basin had less than ten total metals results from quarterly sampling during 2007 before the suspension. Due to the small number of total metals samples collected during the

2007 through 2011 timeframe, the total metals results are not considered in the tables and figures in this report. The results are summarized in Appendix A on the Station Summary Sheets.

**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 ($NH_3$-N), total Kjeldahl nitrogen (TKN) and nitrite+nitrate nitrogen ($NO_2$+$NO_3$-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 and other plants may occur.

At neutral pH in water, ammonia normally forms an ionized solution of ammonium hydroxide, with only a small amount of ammonia. However, as pH increases, more ammonia is left unionized. Unionized ammonia is toxic to fish and other aquatic organisms. At higher pH and temperature, the process of nitrification (i.e. two-step conversion of ammonium to nitrite, then nitrate) consumes oxygen. As previously described, oxygen depletion can be detrimental to the health of surface waters and their associated biota.

**Bacteria**

Concentrations of fecal coliform bacteria can vary greatly. The descriptive statistics used to evaluate fecal coliform bacteria data include the percentage of results above evaluation level threshold values, as well as either the geometric mean or the median colony count per 100 mL, depending upon the classification of the water body. For all freshwater sites in the Yadkin-Pee Dee river basin, the standard specified in the North Carolina Administrative Code 15A NCAC 02B.0211 (3)(e) 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."*

Fecal coliform problems are screened using annual summaries of ambient sampling results. If the screening indicates that the station may be exceeding a standard, the station is assessed using the method required by law. All class B (and class SB/SA in coastal basins) 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 the specified percentage of the time during the 30-day period, or if the median or geometric mean for the 30-day period is greater than the threshold values described in the relevant standard(s), then that water body is considered impaired and is added to the impaired water list, the 303(d) list.

During the current assessment period, nineteen of the stations in the Yadkin-Pee Dee river basin exceeded the fecal coliform standard of 400 colonies/100 mL more than twenty percent of the time. Geometric means and evaluation level exceedance percentages for individual sites are indicated in Table 6 and on the respective station summary sheets.

**Table 6. Frequency of Evaluation Level Exceedances, 2007-2011 (page 1 of 3)**

| STATION TYPE | STATION NUMBER | CLASS | % of Results that Exceeded the Evaluation Limit | | | | | | | | Fecal colif Geomean (> 200 / 100 mL) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen (< 4 mg/L)[1] | Dissolved Oxygen (< 5 mg/L)[2] | pH (< 6 SU) | pH (> 9 SU) | Water Temp[3] | Turbidity (> 50 NTU) | Chlorophyll α (> 40 µg/L) | Fecal colif (> 400 / 100 mL) | |
| **HUC 03040101** | | | | | | | | | | | |
| AMS | Q0220000 | B ORW | 0 | 0 | 0.0 | 1.7 | 0 | 1.6 | NA | 16.9 | 76.6 |
| YPDRBA | Q0360000 | WS-II HQW | 0 | 0 | 0 | 0 | 0 | 0 | NA | 6.2 | 116.3 |
| Colocated | Q0450000 | C | 0 | 0 | 0 | 0 | 0 | 1.7 | NA | 19.2 | 113.8 |
| AMS | Q0660000 | B | 0 | 0 | 0 | 0 | 0 | 7.2 | NA | 12.2 | 72.9 |
| YPDRBA | Q0720000 | WS-IV | 0 | 0 | 0 | 0 | 0 | 1.7 | NA | 6.2 | 132.8 |
| AMS | Q0810000 | C | 0 | 0 | 0 | 0 | 0 | 6.8 | NA | **25.4** | **237.4** |
| YPDRBA | Q1065000 | C | 0 | 0 | 0 | 0 | 0 | 6.7 | NA | 6.2 | 116.9 |
| YPDRBA | Q1215000 | C | 0 | 0 | 0 | 0 | 0 | 10.0 | NA | 6.2 | 107 |
| YPDRBA | Q1350000 | C | 0 | 0 | 0 | 0 | 0 | 8.5 | NA | 0 | 92.5 |
| YPDRBA | Q1500000 | C | 0 | 0 | 0 | 0 | 0 | 8.3 | NA | 6.2 | 102.2 |
| YPDRBA | Q1550000 | C | 0 | 0 | 0 | 0 | 0 | 8.3 | NA | 6.2 | 178.4 |
| YPDRBA | Q1725000 | C | 0 | 0 | 0 | 0 | 0 | 8.3 | NA | 6.2 | 147.6 |
| AMS | Q1780000 | C | 0 | 0 | 0 | 0 | 0 | 1.7 | NA | 8.5 | 77.7 |
| YPDRBA | Q1935000 | C | 0 | 0 | 0 | 0 | 0 | 10.0 | NA | 0 | 88.2 |
| AMS | Q2040000 | WS-IV | 0 | 0 | 0 | 0 | 3.4 | 8.8 | NA | 10.9 | 68.9 |
| YPDRBA | Q2090000 | C | 0 | 0 | 0 | 0 | 0 | 5.3 | NA | NS | NS |
| YPDRBA | Q2120000 | C | 0 | 0 | 0 | 0 | 0 | **15.0** | NA | 12.5 | **236.7** |
| YPDRBA | Q2135000 | WS-IV | 0 | 0 | 0 | 0 | 0 | **18.3** | NA | 6.2 | **200.7** |
| YPDRBA | Q2180000 | WS-IV | 0 | 0 | 0 | 0 | 0 | **23.7** | NA | 0 | 104 |
| YPDRBA | Q2291000 | C | 0 | 0 | 0 | 0 | 0 | 6.7 | NA | 0 | 133.3 |
| YPDRBA | Q2479455 | C | 0 | 0 | 0 | 0 | 0 | 5.0 | NA | 6.2 | 157.4 |
| AMS | Q2510000 | C | 0 | 0 | 0 | 0 | 0 | 8.3 | NA | **50.0** | **521.4** |
| YPDRBA | Q2540000 | C | 0 | 0 | 0 | 0 | 0 | 5.0 | NA | 6.2 | 134.3 |
| YPDRBA | Q2570000 | C | 0 | 0 | 0 | 0 | 0 | 5.0 | NA | 0 | 162.2 |
| AMS | Q2600000 | C | 0 | 0 | 0 | 0 | 0 | **16.7** | NA | **46.6** | **522.3** |
| Colocated | Q2720000 | C | 0 | 0 | 0 | 0 | 0 | **14.0** | NA | 0 | 144.5 |
| Colocated | Q2810000 | WS-IV | 0 | 0 | 0 | 0 | 0 | **17.6** | NS | 15.1 | 136.0 |
| YPDRBA | Q3105000 | C | 0 | 0 | 0 | 0 | 0 | 5.0 | NA | 0 | 106.1 |
| **HUC 03040102** | | | | | | | | | | | |
| AMS | Q3460000 | WS-IV | 0 | 0 | 0 | 0 | 0 | **16.9** | NA | **48.3** | **449.4** |
| AMS | Q3484000 | WS-III | 0 | 0 | **11.9** | 0 | 0 | 10.0 | NA | **20.3** | 169.4 |
| YPDRBA | Q3555000 | WS-IV | 0 | 0 | 0 | 0 | 0 | 8.3 | NA | 18.8 | **230** |
| YPDRBA | Q3720000 | C | 0 | 0 | 0 | 0 | 0 | **11.7** | NA | 0 | 151.5 |
| Colocated | Q3735000 | C | 0 | 0 | 2.1 | 0 | 0 | **15.0** | NA | **29.3** | **273.2** |
| YPDRBA | Q3900000 | C | 0 | 0 | 0 | 0 | 0 | **11.7** | NA | 6.2 | 156.2 |
| YPDRBA | Q3932000 | C | 0 | 0 | 0 | 0 | 0 | 10.0 | NA | 6.2 | 175.3 |
| AMS | Q3934500 | C | 0 | 0 | 3.3 | 0 | 0 | **21.7** | NA | **44.1** | **452.7** |
| YPDRBA | Q3970000 | C | 0 | 0 | 0 | 0 | 0 | **15.0** | NA | 0 | 111.2 |
| YPDRBA | Q4030000 | C | 0 | 0 | 0 | 0 | 0 | **13.3** | NA | 12.5 | **289.4** |
| AMS | Q4120000 | C | 0 | 1.8 | 5.2 | 0 | 0 | **13.3** | NA | **28.3** | **304.9** |
| YPDRBA | Q4165000 | C | 0 | 0 | 0 | 0 | 0 | **15.0** | NA | 6.2 | 137.7 |

## Table 6 (continued). Frequency of Evaluation Level Exceedances, 2007-2011 (page 2 of 3)

| STATION TYPE | STATION NUMBER | CLASS | % of Results that Exceeded the Evaluation Limit | | | | | | | | Fecal colif Geomean (> 200 / 100 mL) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen (< 4 mg/L)[1] | Dissolved Oxygen (< 5 mg/L)[2] | pH (< 6 SU) | pH (> 9 SU) | Water Temp[3] | Turbidity (> 50 NTU) | Chlorophyll α (> 40 µg/L) | Fecal colif (> 400 / 100 mL) | |
| **HUC 03040103** | | | | | | | | | | | |
| Colocated | Q4540000 | C | 1.4 | 2.1 | 1.4 | 0 | 0 | 5.8 | NA | **25.7** | 251.4 |
| Colocated | Q4660000 | WS-V | 0 | 1.5 | 3.7 | 0 | 0.7 | **15.7** | **21.1** | 16.0 | 105.5 |
| YPDRBA | Q5135000 | C | 0 | 4.7 | 0 | 0 | 0 | 5.0 | NA | 0 | 144.9 |
| YPDRBA | Q5210000 | C | 0 | 0 | 0 | 0 | 0 | 6.8 | NA | 0 | 149.9 |
| AMS | Q5360000 | C | 0 | 0 | 6.7 | **11.7** | 8.3 | **16.4*** | **44.8** | 3.4 | 11.7 |
| YPDRBA | Q5745000 | C | 0 | 0 | 0 | 0 | 0 | 7.7 | NA | 0 | 104.9 |
| YPDRBA | Q5750000 | C | 0 | 0 | 0 | 0 | 0 | **11.5** | NA | NS | NS |
| AMS | Q5780000 | C | 1.8 | 7 | 0 | 0 | 0 | 6.8 | NA | **35.6** | **271.3** |
| YPDRBA | Q5785000 | C | 1.2 | 9.4 | 0 | 0 | 0 | **11.7** | NA | 12.5 | **240.3** |
| YPDRBA | Q5790000 | C | 0 | 1.4 | 0 | 0 | 0 | **11.5** | NA | 0 | 147.1 |
| YPDRBA | Q5860000 | C | 0 | 0 | 0 | 0 | 0 | 3.3 | NA | 0 | 109.8 |
| AMS | Q5906000 | C | 0 | 1.7 | 0 | 0 | 0 | 3.3 | NA | **25.0** | **211.9** |
| AMS | Q5930000 | C | 0 | 6.8 | 0 | 0 | 0 | **13.3** | NA | **20.3** | 169.1 |
| YPDRBA | Q5940000 | C | 0 | 0 | 0 | 0 | 0 | 10.0 | NA | 0 | 123.3 |
| Colocated | Q5970000 | WS-V, B | 0 | 5.0 | 0 | 0 | 1.4 | **10.1** | **30.4** | 13.2 | 96.4 |
| Colocated | Q6120000 | WS-IV, B | 9.2 | **12.7** | 0 | 0.7 | 0 | 2.5 | **22.7** | 8.0 | 44.2 |
| YPDRBA | Q6140000 | WS-IV | 0 | 1.2 | 0 | 0 | 0 | 5.0 | NA | 18.8 | **288.2** |
| YPDRBA | Q6705000 | C | 0 | 0 | 0 | 0 | 0 | 1.7 | NA | 0 | 87.3 |
| AMS | Q6810000 | WS-IV B | 0 | 3.8 | 1.8 | 0 | 0 | 3.5 | NA | 14.0 | 64.2 |
| **HUC 03040104** | | | | | | | | | | | |
| YPDRBA | Q6930000 | WS-IV | 0 | 0 | 0 | 0 | 0 | 4.3 | NA | 12.5 | **230.9** |
| YPDRBA | Q6950000 | WS-IV | 0 | 0 | 0 | 0 | 0 | 0 | NA | NS | NS |
| YPDRBA | Q6960000 | WS-IV, B | 0 | 0 | 0 | 0 | 0 | 1.7 | 4.5 | 0 | 72.1 |
| YPDRBA | Q7030000 | WS-IV, B | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77.6 |
| AMS | Q7150000 | WS-V B | **20.7** | **24.1** | **11.9** | 0 | 0 | 1.7 | NS | 1.7 | 17.1 |
| YPDRBA | Q7210000 | C | 0 | 0 | 0 | 0 | 0 | 5.1 | NA | 0 | 123.5 |
| AMS | Q9155000 | C | **43.6** | **49.1** | 3.8 | 0 | 0 | 0 | NA | 3.6 | 59.5 |
| AMS | Q9160000 | WS-V B | 2.0 | **16.0** | 2.2 | 0 | 0 | 4.1 | NA | 4.2 | 88.8 |
| AMS | Q9200000 | C HQW | 0 | 0 | 1.8 | 0 | 0 | 7 | NA | 13.8 | 105.3 |
| YPDRBA | Q9320000 | WS-IV | 0 | 3.5 | 0 | 0 | 0 | 3.3 | NA | 0 | 155.2 |
| YPDRBA | Q9340000 | C | 0 | 0 | 0 | 0 | 0 | 5.5 | NA | 0 | 116.8 |
| **HUC 03040105** | | | | | | | | | | | |
| Colocated | Q7330000 | C | 0 | 0.7 | 0.7 | 0 | 0 | **11.8** | NA | **38.7** | **347.9** |
| YPDRBA | Q7450000 | C | 0 | 0 | 0 | 0 | 0 | **11.7** | NA | 6.2 | 129.2 |
| YPDRBA | Q7550000 | C | 0 | 0 | 0 | 0 | 0 | 6.7 | NA | 6.2 | 169.5 |
| YPDRBA | Q7570000 | C | 0 | 0 | 0 | 0 | 0 | 5.0 | NA | 6.2 | 138.9 |
| YPDRBA | Q7600000 | C | 0 | 0 | 0 | 0 | 0 | **15.0** | NA | 6.2 | 131.9 |
| YPDRBA | Q7700000 | C | 0 | 0 | 0 | 0 | 0 | **11.7** | NA | 0 | 116.9 |
| YPDRBA | Q7780000 | C | 0 | 0 | 0 | 0 | 0 | 10.0 | NA | 6.2 | 106.1 |
| AMS | Q8090000 | C | 0 | 0 | 1.7 | 0 | 0 | **15.0** | NA | **25.4** | **231.6** |
| YPDRBA | Q8200000 | C | 0 | 0 | 0 | 0 | 0 | 7.4 | NA | 0 | **255.9** |
| YPDRBA | Q8210000 | C | 0 | 0 | 0 | 0 | 0 | **11.7** | NA | 6.2 | 98.8 |
| AMS | Q8220000 | C | 0 | 1.7 | 1.7 | 0 | 0 | **20.0** | NA | **30.5** | **229.7** |
| YPDRBA | Q8341000 | C | 0 | 0 | 0 | 0 | 0 | 6.7 | NA | 0 | 122.4 |
| YPDRBA | Q8342000 | C | 0 | 0 | 0 | 0 | 0 | 8.3 | NA | 0 | 75.4 |
| YPDRBA | Q8355000 | C | 0 | 0 | 0 | 0 | 0 | 10.0 | NA | 0 | 95.9 |
| YPDRBA | Q8359500 | C | 0 | 0 | 0 | 0 | 0 | 6.7 | NA | 0 | 116 |

**Table 6 (continued). Frequency of Evaluation Level Exceedances, 2007-2011 (page 3 of 3)**

| STATION TYPE | STATION NUMBER | CLASS | % of Results that Exceeded the Evaluation Limit | | | | | | | | Fecal colif Geomean (> 200 / 100 mL) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Dissolved Oxygen (< 4 mg/L)[1] | Dissolved Oxygen (< 5 mg/L)[2] | pH (< 6 SU) | pH (> 9 SU) | Water Temp[3] | Turbidity (> 50 NTU) | Chlorophyll α (> 40 µg/L) | Fecal colif (> 400 / 100 mL) | |
| **HUC 03040105 (continued)** | | | | | | | | | | | |
| Colocated | Q8360000 | C | 0 | 0.7 | 0.7 | 1.4 | 0 | 5.8 | NA | **38.2** | **345.3** |
| AMS | Q8374000 | C | 2.0 | 2.0 | 2.1 | 0 | 0 | 6 | NA | **24.0** | **214.8** |
| YPDRBA | Q8385000 | C | 0 | 0 | 0 | 0 | 0 | 10.0 | NA | 0 | 92.9 |
| YPDRBA | Q8386000 | C | 2.4 | **24.1** | 0 | 0 | 0 | **10.2** | NA | **46.7** | **352.9** |
| YPDRBA | Q8386200 | C | 0 | **13.3** | 0 | 0 | 0 | 3.4 | NA | **26.7** | **257.9** |
| YPDRBA | Q8388000 | C | 0 | 0 | 0 | 0 | 0 | 8.3 | NA | 0 | 153.4 |
| YPDRBA | Q8388900 | C | 0 | **15.3** | 0 | 0 | 0 | **13.3** | NA | 6.2 | **200.4** |
| YPDRBA | Q8715000 | C | 0 | 0 | 0 | 0 | 0 | 3.8 | NA | 0 | 126.3 |
| Colocated | Q8720000 | C | 0 | 0 | 1.2 | 0 | 0 | 2.5 | NA | 16.7 | 110.3 |
| YPDRBA | Q8800000 | C | 0 | 0 | 0 | 0 | 0 | 3.3 | NA | 0 | 175.4 |
| YPDRBA | Q8820000 | C | 0 | 0 | 0 | 0 | 0 | 5.1 | NA | 0 | 170 |
| AMS | Q8917000 | C | 0 | 0 | 0 | 0 | 0 | 3.3 | NA | 13.3 | 98.4 |
| YPDRBA | Q9021300 | WS-V | 2.4 | **13.3** | 0 | 0 | 0 | 5.3 | NA | 18.8 | 179 |
| AMS | Q9120000 | C | 1.7 | 1.7 | 3.4 | 3.4 | 1.7 | **21.7** | NA | 16.7 | 126.5 |
| **HUC 03040201** | | | | | | | | | | | |
| Colocated | Q9400000 | C | 5.0 | 9.4 | 0.7 | 0 | 0 | 2.6 | NA | 2.8 | 45.9 |
| AMS | Q9660000 | C | 1.8 | 3.6 | 7.5 | 0 | 0 | 0 | NA | 7.0 | 73.8 |
| AMS | Q9777000 | C | 5.5 | 5.5 | 5.9 | 0 | 0 | 3.7 | NA | 12.7 | 153.5 |
| AMS | Q9940000 | C | **29.8** | **43.9** | **38.9** | 0 | 0 | 1.7 | NA | 7.0 | 103.5 |

Notes:
Results from both AMS and YPDRBA sampling at colocated stations were combined; exceedance percentages represent the combined dataset.
Values in bold: > 10% (>20% for fecal) EL exceedance frequency, or exceedance of fecal coliform geometric mean EL.
[1] Applies to freshwater (class B, C and WS) only.
[2] Applies to saltwater (class SA, SB and SC) primarily, and to freshwater (class B, C, and WS) as a daily average.
[3] Water temperature: EL of > 29 °C applies to mountain and upper piedmont water bodies; EL of > 32 °C applies to lower piedmont and coastal plain water bodies.
NA: Not Applicable. The evaluation level is not applicable to this station.
NS - Station was not sampled, or there were less than 10 results for this parameter.
*Turbidity EL at station Q5360000 on High Rock Lake is > 25 NTU.
No nitrate EL (> 10 mg/L) exceedances were measured at any station with a water supply classification.

## WATER QUALITY PATTERNS IN THE YADKIN-PEE DEE RIVER BASIN

Maps were used to depict data for a variety of water quality parameters throughout the basin so that the relationship of stations to each other could be seen and regional patterns could become clear. While figures portray information visually, specific and accurate details can only be conveyed in tables. Individual station summary sheets should be consulted when exact information is needed.

Maps were utilized specifically to display the geographic distribution of evaluation level exceedances for dissolved oxygen, pH, turbidity, fecal coliform and chlorophyll α (Figures 2 through 6, respectively). Station symbol colors signified the degree of water quality exceedance at each location.

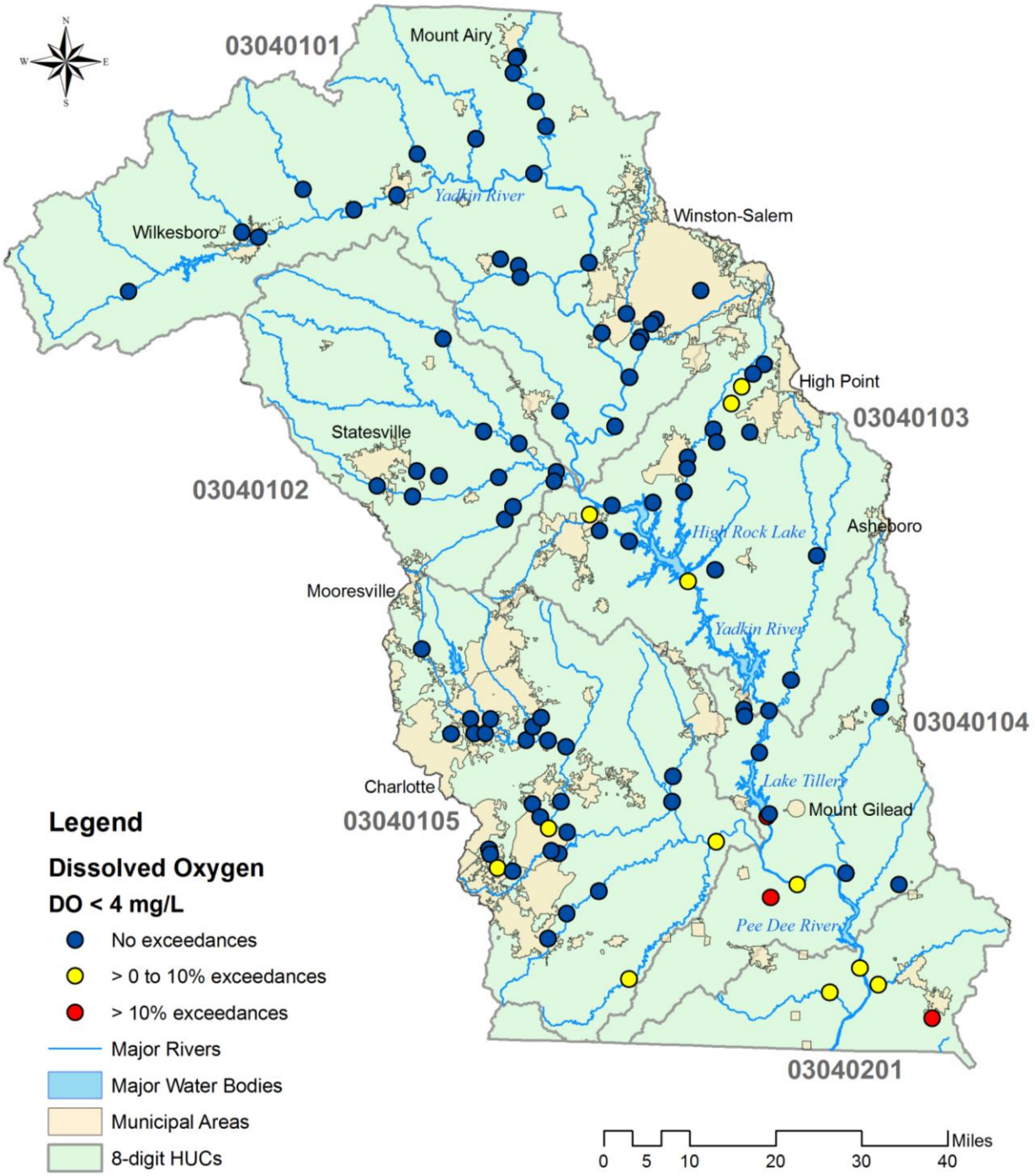


**Figure 2. Geographic distribution and percentage of dissolved oxygen exceedances (less than 4.0 mg/L)**

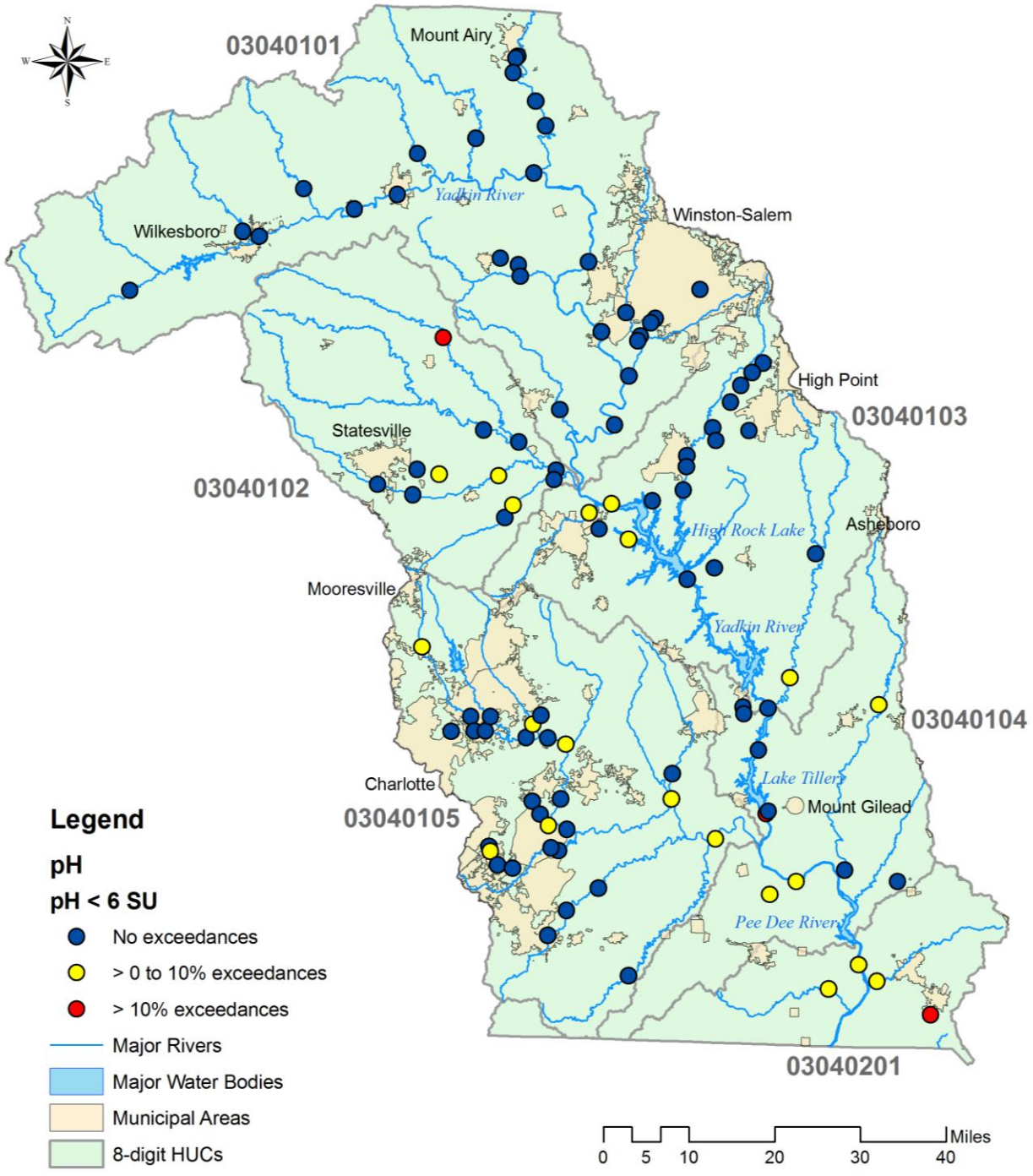


**Figure 3. Geographic distribution and percentage of pH exceedances (less than 6.0 SU)**

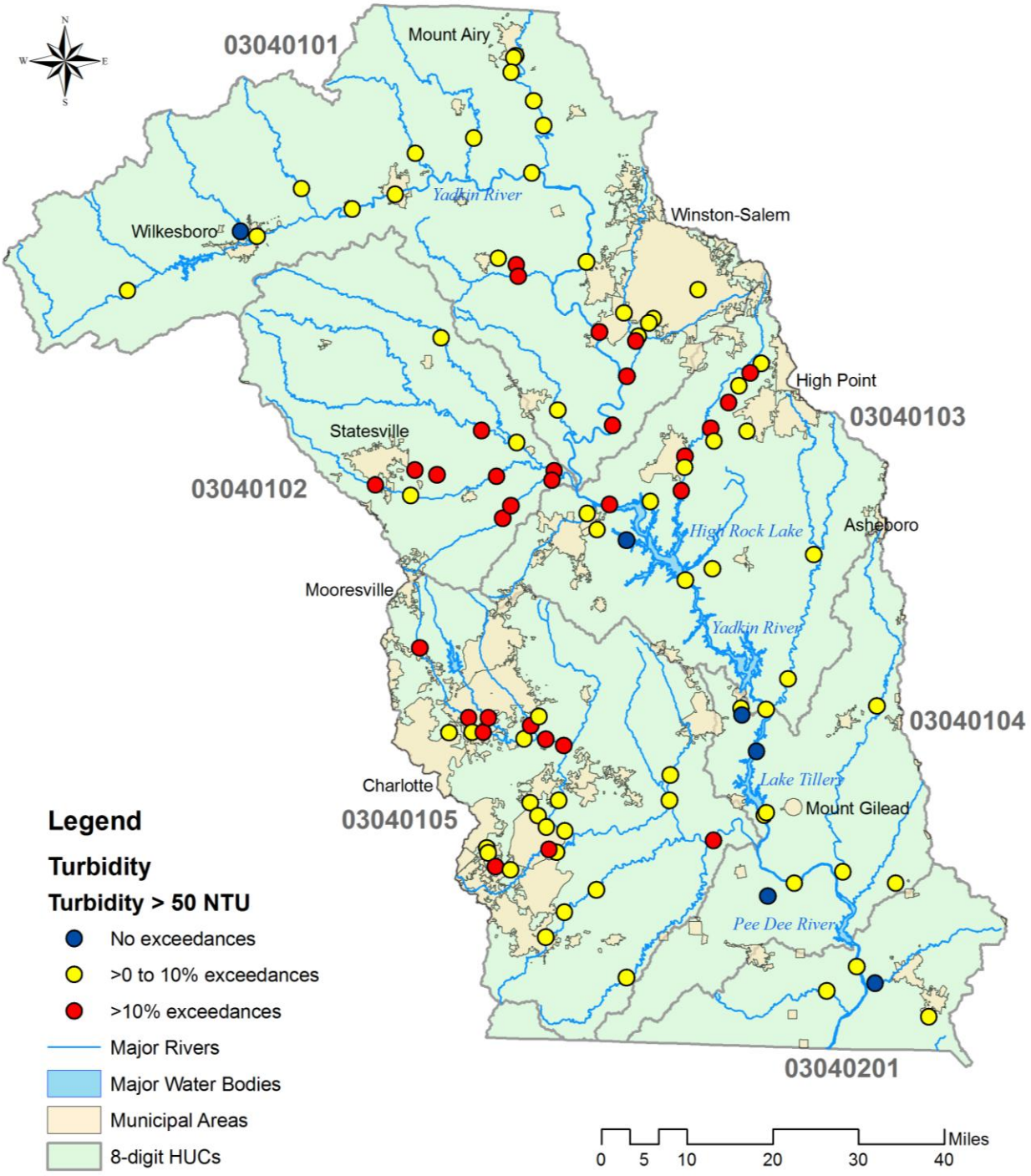


**Figure 4. Geographic distribution and percentage of turbidity exceedances (greater than 50 NTU; exception: greater than 25 NTU at Station Q5360000)**

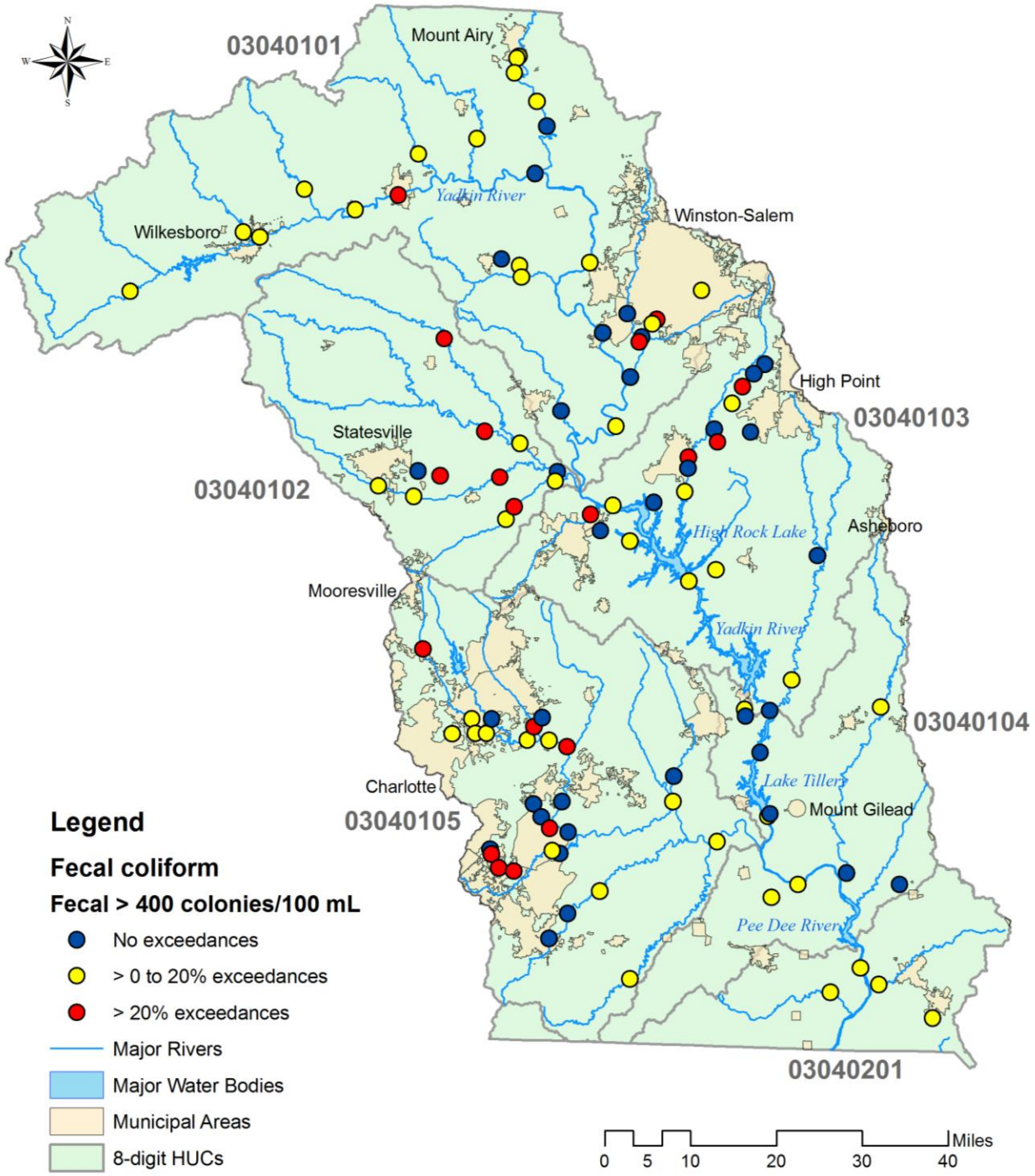


**Figure 5. Geographic distribution and percentage of fecal coliform exceedances (by membrane filter fecal coliform count: greater than 400 colonies/100 mL)**

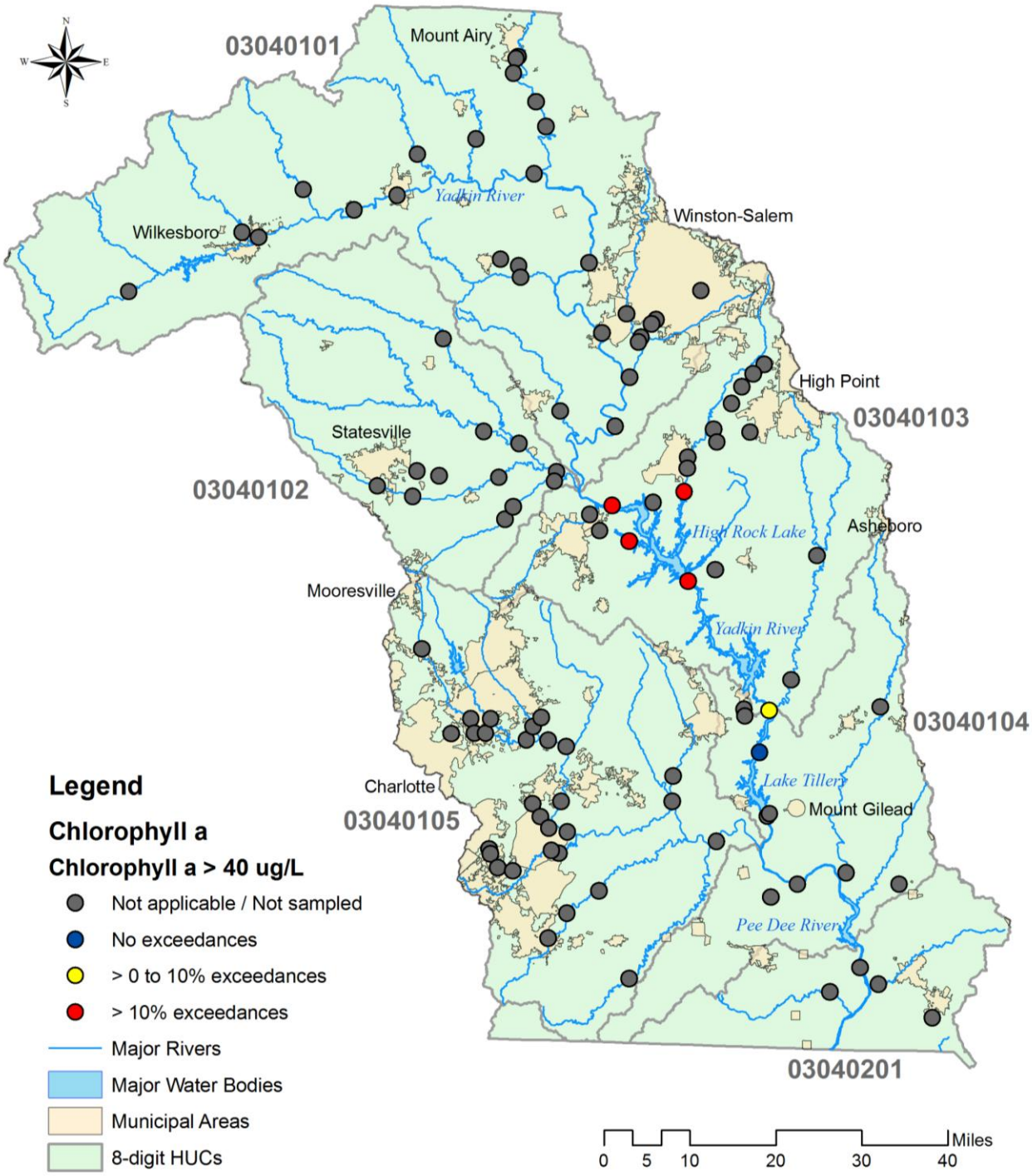


**Figure 6. Geographic distribution and percentage of chlorophyll α exceedances (greater than 40 µg/L)**

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## Appendix A: Station Summary Sheets

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

**Location:** ELK CRK AT NC 268 AT ELKVILLE
**Station #:** Q0220000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.06952 **Longitude:** -81.40237 **Stream class:** B ORW
**Agency:** NCAMBNT **NC stream index:** 12-24-(10)

**Time period:** 01/16/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 61 | 0 | <4 | 0 | 0 | | 6.5 | 7.9 | 8.4 | 9.3 | 11.4 | 13.6 | 14.9 |
| | 61 | 0 | <5 | 0 | 0 | | 6.5 | 7.9 | 8.4 | 9.3 | 11.4 | 13.6 | 14.9 |
| pH (SU) | 60 | 0 | <6 | 0 | 0 | | 6.7 | 7.1 | 7.4 | 7.6 | 7.8 | 8.1 | 9.2 |
| | 60 | 0 | >9 | 1 | 1.7 | | 6.7 | 7.1 | 7.4 | 7.6 | 7.8 | 8.1 | 9.2 |
| Spec. conductance (umhos/cm at 25°C) | 60 | 0 | N/A | | | | 17 | 33 | 36 | 39 | 45 | 53 | 127 |
| Water Temperature (°C) | 61 | 0 | >29 | 0 | 0 | | 0.3 | 3.7 | 9 | 17 | 22.1 | 25.9 | 27.1 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 10 | 10 | 10 | 11 | 11 | 11 | 11 |
| | 1 | 0 | N/A | | | | 11 | 11 | 11 | 11 | 11 | 11 | 11 |
| TSS (mg/L) | 20 | 14 | N/A | | | | 2.5 | 4.2 | 6.2 | 6.2 | 12 | 35.1 | 46 |
| Turbidity (NTU) | 61 | 9 | >50 | 1 | 1.6 | | 1 | 1 | 1.6 | 2.7 | 5.1 | 17.6 | 95 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 56 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| NO2 + NO3 as N | 60 | 2 | N/A | | | | 0.02 | 0.02 | 0.08 | 0.15 | 0.23 | 0.3 | 0.4 |
| TKN as N | 55 | 38 | N/A | | | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.29 | 0.77 |
| Total Phosphorus | 59 | 22 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.06 | 0.22 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 180 | 180 | 180 | 180 | 180 | 180 | 180 |
| 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 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 270 | 270 | 270 | 270 | 270 | 270 | 270 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 59 | 76.6 | 10 | 16.9 | |

**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 significance

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

**Location:** YADKIN RIV AT US 421 BUS AT N WILKESBORO
**Station #:** Q0450000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.16597 **Longitude:** -81.13447 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-(38)

**Time period:** 01/16/2007 to 11/29/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 55 | 0 | <4 | 0 | 0 | | 6.4 | 7.1 | 7.8 | 9.5 | 11.2 | 13.2 | 15.8 |
| | 55 | 0 | <5 | 0 | 0 | | 6.4 | 7.1 | 7.8 | 9.5 | 11.2 | 13.2 | 15.8 |
| pH (SU) | 53 | 0 | <6 | 0 | 0 | | 6.8 | 6.9 | 7.2 | 7.4 | 7.6 | 7.8 | 8.7 |
| | 53 | 0 | >9 | 0 | 0 | | 6.8 | 6.9 | 7.2 | 7.4 | 7.6 | 7.8 | 8.7 |
| Spec. conductance (umhos/cm at 25°C) | 55 | 0 | N/A | | | | 41 | 46 | 56 | 66 | 74 | 81 | 93 |
| Water Temperature (°C) | 56 | 0 | >29 | 0 | 0 | | 3.3 | 5.6 | 10.7 | 17.3 | 21.8 | 24.5 | 27.1 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 1 | 0 | N/A | | | | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| | 5 | 0 | N/A | | | | 16 | 16 | 16 | 17 | 18 | 19 | 19 |
| TSS (mg/L) | 17 | 6 | N/A | | | | 5.5 | 6.1 | 6.2 | 7.2 | 13.5 | 47.4 | 97 |
| Turbidity (NTU) | 57 | 0 | >50 | 2 | 3.5 | | 3.1 | 3.9 | 5.2 | 8.1 | 12 | 28 | 75 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 3 | 0 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.03 | 0.05 | 0.05 | 0.05 |
| NO2 + NO3 as N | 3 | 0 | N/A | | | | 0.4 | 0.4 | 0.4 | 0.72 | 1.1 | 1.1 | 1.1 |
| TKN as N | 3 | 0 | N/A | | | | 0.2 | 0.2 | 0.2 | 0.26 | 0.3 | 0.3 | 0.3 |
| Total Phosphorus | 3 | 0 | N/A | | | | 0.05 | 0.05 | 0.05 | 0.15 | 0.18 | 0.18 | 0.18 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 57 | 112 | 13 | 22.8 | 65.3 |

**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 significance

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

**Location:** ROARING RIV AT SR 1990 NR ROARING RIVER
**Station #:** Q0660000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.24802 **Longitude:** -81.04303 **Stream class:** B
**Agency:** NCAMBNT **NC stream index:** 12-46

**Time period:** 01/16/2007 to 11/02/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 80 | 0 | <4 | 0 | 0 | | 6.4 | 8 | 8.5 | 10.4 | 12.5 | 13.6 | 16.2 |
| | 80 | 0 | <5 | 0 | 0 | | 6.4 | 8 | 8.5 | 10.4 | 12.5 | 13.6 | 16.2 |
| pH (SU) | 78 | 0 | <6 | 0 | 0 | | 6.5 | 7.1 | 7.2 | 7.4 | 7.7 | 7.9 | 8.2 |
| | 78 | 0 | >9 | 0 | 0 | | 6.5 | 7.1 | 7.2 | 7.4 | 7.7 | 7.9 | 8.2 |
| Spec. conductance (umhos/cm at 25°C) | 81 | 0 | N/A | | | | 26 | 33 | 36 | 38 | 42 | 51 | 446 |
| Water Temperature (°C) | 81 | 0 | >29 | 0 | 0 | | 0.2 | 4.1 | 8.2 | 14.8 | 21.8 | 23.8 | 27.2 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 9 | 9 | 10 | 12 | 19 | 21 | 21 |
| | 1 | 0 | N/A | | | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Total Organic Carbon (mg/L as C) | 47 | 25 | N/A | | | | 2 | 2 | 2 | 2 | 2 | 5 | 23 |
| TSS (mg/L) | 60 | 39 | N/A | | | | 5.5 | 6.2 | 6.2 | 6.2 | 12 | 29.2 | 130 |
| Turbidity (NTU) | 83 | 1 | >50 | 6 | 7.2 | | 1 | 1.7 | 2.7 | 5.1 | 8.2 | 26.2 | 250 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 48 | 40 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.06 |
| NO2 + NO3 as N | 48 | 0 | N/A | | | | 0.21 | 0.3 | 0.37 | 0.45 | 0.56 | 0.64 | 0.75 |
| TKN as N | 45 | 26 | N/A | | | | 0.2 | 0.2 | 0.2 | 0.2 | 0.24 | 0.4 | 1.1 |
| Total Phosphorus | 47 | 4 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.03 | 0.05 | 0.11 | 0.93 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 160 | 160 | 160 | 160 | 160 | 160 | 160 |
| 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 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 200 | 200 | 200 | 200 | 200 | 200 | 200 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 82 | 72.9 | 10 | 12.2 | |

**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 significance

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

**Location:** YADKIN RIV AT US 21 BUS AT ELKIN
**Station #:** Q0810000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.24176 **Longitude:** -80.84734 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-(53)

**Time period:** 01/16/2007 to 12/14/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 0 | 0 | | 5.4 | 7 | 7.8 | 9.6 | 11.6 | 13.2 | 15.3 |
| | 58 | 0 | <5 | 0 | 0 | | 5.4 | 7 | 7.8 | 9.6 | 11.6 | 13.2 | 15.3 |
| pH (SU) | 55 | 0 | <6 | 0 | 0 | | 6.3 | 7 | 7.2 | 7.4 | 7.5 | 7.8 | 8 |
| | 55 | 0 | >9 | 0 | 0 | | 6.3 | 7 | 7.2 | 7.4 | 7.5 | 7.8 | 8 |
| Spec. conductance (umhos/cm at 25°C) | 58 | 0 | N/A | | | | 43 | 50 | 57 | 62 | 68 | 76 | 164 |
| Water Temperature (°C) | 59 | 0 | >29 | 0 | 0 | | 1.9 | 4.2 | 9.6 | 16.3 | 22.9 | 25.7 | 28.2 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 15 | 15 | 16 | 17 | 34 | 79 | 79 |
| Total Organic Carbon (mg/L as C) | 22 | 4 | N/A | | | | 2 | 2 | 2 | 3 | 4 | 5 | 5 |
| TSS (mg/L) | 35 | 7 | N/A | | | | 6.2 | 6.2 | 8 | 12 | 18 | 39.8 | 81 |
| Turbidity (NTU) | 59 | 0 | >50 | 4 | 6.8 | | 2.7 | 5.2 | 7 | 10 | 19 | 36 | 100 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 24 | 8 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.05 | 0.16 | 0.17 |
| NO2 + NO3 as N | 24 | 0 | N/A | | | | 0.36 | 0.41 | 0.55 | 0.66 | 0.9 | 1.05 | 1.1 |
| TKN as N | 22 | 0 | N/A | | | | 0.2 | 0.24 | 0.26 | 0.32 | 0.45 | 0.86 | 0.94 |
| Total Phosphorus | 23 | 0 | N/A | | | | 0.05 | 0.05 | 0.08 | 0.1 | 0.15 | 0.34 | 0.41 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 360 | 360 | 360 | 360 | 360 | 360 | 360 |
| 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 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 530 | 530 | 530 | 530 | 530 | 530 | 530 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 59 | 237.4 | 15 | 25.4 | 81.2 |

**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 significance

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

**Location:** ARARAT RIV AT SR 2019 AT ARARAT
**Station #:** Q1780000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.40361 **Longitude:** -80.56113 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-72-(4.5)

**Time period:** 01/18/2007 to 12/14/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 59 | 0 | <4 | 0 | 0 | | 5.9 | 8.1 | 8.6 | 10.3 | 12.3 | 13.8 | 15.4 |
| | 59 | 0 | <5 | 0 | 0 | | 5.9 | 8.1 | 8.6 | 10.3 | 12.3 | 13.8 | 15.4 |
| pH (SU) | 56 | 0 | <6 | 0 | 0 | | 6.7 | 7.2 | 7.5 | 7.7 | 8 | 8.2 | 8.9 |
| | 56 | 0 | >9 | 0 | 0 | | 6.7 | 7.2 | 7.5 | 7.7 | 8 | 8.2 | 8.9 |
| Spec. conductance (umhos/cm at 25°C) | 59 | 0 | N/A | | | | 50 | 66 | 72 | 77 | 88 | 107 | 146 |
| Water Temperature (°C) | 60 | 0 | >29 | 0 | 0 | | 1.5 | 4.1 | 8.8 | 16.4 | 22.4 | 25 | 27.9 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 20 | 20 | 21 | 22 | 29 | 37 | 37 |
| | 1 | 0 | N/A | | | | 25 | 25 | 25 | 25 | 25 | 25 | 25 |
| TSS (mg/L) | 19 | 9 | N/A | | | | 6.2 | 6.2 | 6.2 | 9.8 | 13 | 22 | 45 |
| Turbidity (NTU) | 60 | 0 | >50 | 1 | 1.7 | | 1.5 | 2.5 | 3.5 | 5.4 | 11.8 | 19.6 | 170 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 1 | 1 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| NO2 + NO3 as N | 1 | 0 | N/A | | | | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 | 0.84 |
| TKN as N | 1 | 1 | N/A | | | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Total Phosphorus | 1 | 0 | N/A | | | | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 | 0.03 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 730 | 730 | 730 | 730 | 730 | 730 | 730 |
| 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 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 830 | 830 | 830 | 830 | 830 | 830 | 830 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 59 | 77.7 | 5 | 8.5 | |

**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 significance

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

**Location:** YADKIN RIV AT SR 1605 AT ENON
**Station #:** Q2040000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.13279 **Longitude:** -80.44539 **Stream class:** WS-IV
**Agency:** NCAMBNT **NC stream index:** 12-(80.7)

**Time period:** 01/16/2007 to 11/29/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 57 | 0 | <4 | 0 | 0 | | 6.1 | 7.2 | 7.8 | 9.3 | 12.5 | 13.8 | 16.4 |
| | 57 | 0 | <5 | 0 | 0 | | 6.1 | 7.2 | 7.8 | 9.3 | 12.5 | 13.8 | 16.4 |
| pH (SU) | 57 | 0 | <6 | 0 | 0 | | 6.7 | 7.1 | 7.3 | 7.5 | 7.7 | 7.9 | 8.7 |
| | 57 | 0 | >9 | 0 | 0 | | 6.7 | 7.1 | 7.3 | 7.5 | 7.7 | 7.9 | 8.7 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 36 | 56 | 61 | 66 | 73 | 81 | 86 |
| Water Temperature (°C) | 58 | 0 | >29 | 2 | 3.4 | | 0.8 | 4.2 | 9.2 | 16.8 | 24.4 | 27.2 | 31.1 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 5 | 0 | >100 | 0 | 0 | | 16 | 16 | 16 | 20 | 20 | 21 | 21 |
| Total Organic Carbon (mg/L as C) | 24 | 6 | N/A | | | | 2 | 2 | 2 | 3 | 3 | 4 | 5 |
| TSS (mg/L) | 34 | 9 | N/A | | | | 6.2 | 6.2 | 7.7 | 16 | 37.2 | 57 | 110 |
| Turbidity (NTU) | 57 | 0 | >50 | 5 | 8.8 | | 2.2 | 3.9 | 8.1 | 14 | 34 | 51 | 200 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 24 | 11 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.06 | 0.09 |
| NO2 + NO3 as N | 24 | 0 | >10 | 0 | 0 | | 0.38 | 0.42 | 0.47 | 0.58 | 0.69 | 0.88 | 1 |
| TKN as N | 22 | 2 | N/A | | | | 0.2 | 0.2 | 0.23 | 0.3 | 0.4 | 0.54 | 0.69 |
| Total Phosphorus | 24 | 0 | N/A | | | | 0.04 | 0.04 | 0.07 | 0.12 | 0.15 | 0.17 | 0.31 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 810 | 810 | 810 | 810 | 810 | 810 | 810 |
| 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 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 920 | 920 | 920 | 920 | 920 | 920 | 920 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 1 | 0 | >200 | 0 | 0 | | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| Nickel, total (Ni) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 55 | 68.9 | 6 | 10.9 | |

**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 significance

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

**Location:** SALEM CRK AT ELLEDGE WTP AT WINSTON SALEM
**Station #:** Q2510000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.03878 **Longitude:** -80.30416 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-94-12-(4)

**Time period:** 01/25/2007 to 12/15/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 0 | 0 | | 6.1 | 6.7 | 7.1 | 8.8 | 11 | 13.5 | 15.9 |
| | 58 | 0 | <5 | 0 | 0 | | 6.1 | 6.7 | 7.1 | 8.8 | 11 | 13.5 | 15.9 |
| pH (SU) | 56 | 0 | <6 | 0 | 0 | | 6.1 | 7 | 7.2 | 7.3 | 7.4 | 7.6 | 8.2 |
| | 56 | 0 | >9 | 0 | 0 | | 6.1 | 7 | 7.2 | 7.3 | 7.4 | 7.6 | 8.2 |
| Spec. conductance (umhos/cm at 25°C) | 58 | 0 | N/A | | | | 77 | 97 | 117 | 150 | 166 | 182 | 1133 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 2 | 7 | 10.3 | 17.4 | 24.4 | 26.9 | 29.3 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 35 | 35 | 37 | 40 | 42 | 45 | 45 |
| | 1 | 0 | N/A | | | | 36 | 36 | 36 | 36 | 36 | 36 | 36 |
| TSS (mg/L) | 18 | 11 | N/A | | | | 3 | 5.9 | 6.2 | 6.2 | 12.2 | 114.4 | 154 |
| Turbidity (NTU) | 60 | 0 | >50 | 5 | 8.3 | | 1.6 | 2.3 | 3.3 | 6.4 | 15.5 | 49.5 | 140 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 0 | N/A | | | | 0.02 | 0.06 | 0.1 | 0.17 | 0.26 | 0.45 | 1.1 |
| NO2 + NO3 as N | 59 | 0 | N/A | | | | 0.11 | 0.56 | 0.72 | 1.1 | 1.2 | 1.4 | 3 |
| TKN as N | 59 | 0 | N/A | | | | 0.28 | 0.37 | 0.45 | 0.54 | 0.67 | 0.9 | 1.6 |
| Total Phosphorus | 59 | 0 | N/A | | | | 0.02 | 0.02 | 0.03 | 0.04 | 0.06 | 0.16 | 0.8 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 500 | 500 | 500 | 500 | 500 | 500 | 500 |
| 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 | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 900 | 900 | 900 | 900 | 900 | 900 | 900 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 1 | 1 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 0 | >50 | 0 | 0 | | 14 | 14 | 14 | 14 | 14 | 14 | 14 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 58 | 521.4 | 29 | 50 | > 99.9 |

**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 significance

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

**Location:** MUDDY CRK AT SR 2995 NR MUDDY CREEK
**Station #:** Q2600000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.00001 **Longitude:** -80.34000 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-94-(0.5)

**Time period:** 01/25/2007 to 12/15/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 0 | 0 | | 5.5 | 6.4 | 6.9 | 8.5 | 10.7 | 12.8 | 15.2 |
| | 58 | 0 | <5 | 0 | 0 | | 5.5 | 6.4 | 6.9 | 8.5 | 10.7 | 12.8 | 15.2 |
| pH (SU) | 56 | 0 | <6 | 0 | 0 | | 6.8 | 7 | 7.1 | 7.3 | 7.4 | 7.6 | 7.9 |
| | 56 | 0 | >9 | 0 | 0 | | 6.8 | 7 | 7.1 | 7.3 | 7.4 | 7.6 | 7.9 |
| Spec. conductance (umhos/cm at 25°C) | 58 | 0 | N/A | | | | 66 | 130 | 196 | 276 | 334 | 422 | 806 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 2.8 | 7.9 | 10.2 | 17.6 | 24.3 | 26.5 | 29.3 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 47 | 47 | 49 | 54 | 64 | 68 | 68 |
| | 1 | 0 | N/A | | | | 41 | 41 | 41 | 41 | 41 | 41 | 41 |
| TSS (mg/L) | 18 | 4 | N/A | | | | 6.2 | 6.2 | 6.6 | 10.5 | 36.8 | 155.4 | 546 |
| Turbidity (NTU) | 60 | 0 | >50 | 10 | 16.7 | 92.7 | 2.2 | 3.8 | 5.4 | 8.2 | 26.5 | 97.5 | 310 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 1 | N/A | | | | 0.02 | 0.05 | 0.06 | 0.09 | 0.21 | 0.4 | 1.1 |
| NO2 + NO3 as N | 59 | 0 | N/A | | | | 0.48 | 1.2 | 1.8 | 2.7 | 3.6 | 4.6 | 7 |
| TKN as N | 59 | 0 | N/A | | | | 0.52 | 0.61 | 0.67 | 0.85 | 1 | 1.5 | 2.2 |
| Total Phosphorus | 59 | 0 | N/A | | | | 0.02 | 0.29 | 0.49 | 0.71 | 0.93 | 1.8 | 2.6 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 |
| 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 | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Iron, total (Fe) | 1 | 0 | >1000 | 1 | 100 | | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 | 1700 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 1 | 1 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 0 | >50 | 0 | 0 | | 27 | 27 | 27 | 27 | 27 | 27 | 27 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 58 | 522.3 | 27 | 46.6 | > 99.9 |

**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 significance

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

**Location:** MUDDY CRK AT SR 1485 NR WINSTON SALEM
**Station #:** Q2720000 **Hydrologic Unit Code:** 3040101
**Latitude:** 35.94020 **Longitude:** -80.35800 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-94-(0.5)

**Time period:** 04/10/2008 to 04/05/2010

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 47 | 0 | <4 | 0 | 0 | | 5.6 | 6.4 | 6.9 | 8.9 | 10.9 | 12.4 | 16.1 |
| | 47 | 0 | <5 | 0 | 0 | | 5.6 | 6.4 | 6.9 | 8.9 | 10.9 | 12.4 | 16.1 |
| pH (SU) | 45 | 0 | <6 | 0 | 0 | | 6.5 | 6.9 | 7.1 | 7.2 | 7.4 | 7.6 | 7.8 |
| | 45 | 0 | >9 | 0 | 0 | | 6.5 | 6.9 | 7.1 | 7.2 | 7.4 | 7.6 | 7.8 |
| Spec. conductance (umhos/cm at 25°C) | 48 | 0 | N/A | | | | 103 | 140 | 177 | 242 | 333 | 394 | 505 |
| Water Temperature (°C) | 48 | 0 | >32 | 0 | 0 | | 3.6 | 7 | 9.4 | 15.8 | 23 | 25.8 | 29.4 |
| **Other** | | | | | | | | | | | | | |
| Total Organic Carbon (mg/L as C) | 47 | 0 | N/A | | | | 3 | 3 | 4 | 4 | 6 | 6 | 13 |
| TSS (mg/L) | 48 | 10 | N/A | | | | 6.2 | 6.2 | 12 | 18 | 37.8 | 78.6 | 295 |
| Turbidity (NTU) | 47 | 0 | >50 | 8 | 17 | 90.7 | 4.4 | 6.8 | 11 | 16 | 37 | 70 | 390 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 48 | 1 | N/A | | | | 0.02 | 0.03 | 0.05 | 0.07 | 0.11 | 0.23 | 0.47 |
| NO2 + NO3 as N | 48 | 0 | N/A | | | | 0.8 | 1.09 | 1.65 | 2.15 | 2.7 | 4.21 | 5.8 |
| TKN as N | 47 | 0 | N/A | | | | 0.47 | 0.55 | 0.6 | 0.68 | 0.85 | 1.1 | 1.5 |
| Total Phosphorus | 48 | 0 | N/A | | | | 0.09 | 0.22 | 0.3 | 0.44 | 0.64 | 0.96 | 1.4 |

**Key:**
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# 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 significance

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

**Location:** YADKIN RIV AT US 64 AT YADKIN COLLEGE
**Station #:** Q2810000 **Hydrologic Unit Code:** 3040101
**Latitude:** 35.85700 **Longitude:** -80.38628 **Stream class:** WS-IV CA
**Agency:** NCAMBNT **NC stream index:** 12-(97.5)

**Time period:** 01/24/2007 to 11/21/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 0 | 0 | | 5.4 | 6.3 | 7 | 9 | 12 | 13.3 | 14.8 |
| | 58 | 0 | <5 | 0 | 0 | | 5.4 | 6.3 | 7 | 9 | 12 | 13.3 | 14.8 |
| pH (SU) | 58 | 0 | <6 | 0 | 0 | | 6.3 | 6.8 | 7.1 | 7.3 | 7.5 | 7.7 | 8.1 |
| | 58 | 0 | >9 | 0 | 0 | | 6.3 | 6.8 | 7.1 | 7.3 | 7.5 | 7.7 | 8.1 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 55 | 70 | 80 | 98 | 117 | 129 | 160 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 2.8 | 5 | 11.6 | 15.9 | 24.6 | 27.5 | 28.9 |
| **Other** | | | | | | | | | | | | | |
| Chlorophyll a (ug/L) | 3 | 1 | >40 | 0 | 0 | | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| Hardness (mg/L) | 6 | 0 | >100 | 0 | 0 | | 22 | 22 | 24 | 27 | 30 | 35 | 35 |
| Total Organic Carbon (mg/L as C) | 24 | 1 | N/A | | | | 2 | 2 | 2 | 3 | 4 | 7 | 22 |
| TSS (mg/L) | 36 | 5 | N/A | | | | 6.2 | 6.2 | 11 | 16.5 | 42.5 | 104.3 | 410 |
| Turbidity (NTU) | 59 | 0 | >50 | 10 | 16.9 | 93.3 | 3.1 | 6.1 | 10 | 18 | 32 | 90 | 190 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 23 | 2 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.04 | 0.06 | 0.11 | 0.14 |
| NO2 + NO3 as N | 23 | 0 | >10 | 0 | 0 | | 0.55 | 0.69 | 0.9 | 1 | 1.3 | 1.88 | 2.2 |
| TKN as N | 21 | 1 | N/A | | | | 0.2 | 0.3 | 0.35 | 0.41 | 0.59 | 1.01 | 1.9 |
| Total Phosphorus | 22 | 0 | N/A | | | | 0.09 | 0.1 | 0.16 | 0.2 | 0.3 | 0.84 | 10 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 590 | 590 | 590 | 590 | 590 | 590 | 590 |
| 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 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 930 | 930 | 930 | 930 | 930 | 930 | 930 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 1 | 0 | >200 | 0 | 0 | | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| Nickel, total (Ni) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 57 | 156.5 | 11 | 19.3 | |

**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 significance

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

**Location:** S YADKIN RIV AT SR 1159 NR MOCKSVILLE
**Station #:** Q3460000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.84478 **Longitude:** -80.65910 **Stream class:** WS-IV
**Agency:** NCAMBNT **NC stream index:** 12-108-(14.5)

**Time period:** 01/24/2007 to 11/21/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 0 | 0 | | 6.2 | 6.5 | 7.2 | 9 | 11.5 | 13.1 | 14.6 |
| | 58 | 0 | <5 | 0 | 0 | | 6.2 | 6.5 | 7.2 | 9 | 11.5 | 13.1 | 14.6 |
| pH (SU) | 58 | 0 | <6 | 0 | 0 | | 6.2 | 6.9 | 7.1 | 7.4 | 7.5 | 7.7 | 8.2 |
| | 58 | 0 | >9 | 0 | 0 | | 6.2 | 6.9 | 7.1 | 7.4 | 7.5 | 7.7 | 8.2 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 59 | 67 | 70 | 74 | 80 | 85 | 182 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 1.4 | 4.3 | 9.7 | 15.1 | 22.5 | 24.5 | 27.3 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | >100 | 0 | 0 | | 24 | 24 | 25 | 26 | 27 | 27 | 27 |
| Total Organic Carbon (mg/L as C) | 23 | 5 | N/A | | | | 2 | 2 | 2 | 2 | 4 | 4 | 5 |
| TSS (mg/L) | 35 | 6 | N/A | | | | 6.2 | 6.2 | 14 | 24 | 44 | 138.4 | 1100 |
| Turbidity (NTU) | 59 | 0 | >50 | 10 | 16.9 | 93.3 | 4 | 7.2 | 13 | 25 | 45 | 85 | 750 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 24 | 5 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 | 0.07 | 0.09 |
| NO2 + NO3 as N | 24 | 0 | >10 | 0 | 0 | | 0.18 | 0.44 | 0.51 | 0.65 | 0.82 | 0.9 | 0.96 |
| TKN as N | 23 | 3 | N/A | | | | 0.2 | 0.2 | 0.24 | 0.35 | 0.52 | 0.74 | 0.97 |
| Total Phosphorus | 24 | 0 | N/A | | | | 0.02 | 0.02 | 0.06 | 0.09 | 0.11 | 0.33 | 0.98 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 380 | 380 | 380 | 380 | 380 | 380 | 380 |
| 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 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 780 | 780 | 780 | 780 | 780 | 780 | 780 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 1 | 0 | >200 | 0 | 0 | | 45 | 45 | 45 | 45 | 45 | 45 | 45 |
| Nickel, total (Ni) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 58 | 449.4 | 28 | 48.3 | > 99.9 |

**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 significance

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

**Location:** HUNTING CRK AT SR 2115 NR HARMONY
**Station #:** Q3484000 **Hydrologic Unit Code:** 3040102
**Latitude:** 36.00024 **Longitude:** -80.74562 **Stream class:** WS-III
**Agency:** NCAMBNT **NC stream index:** 12-108-16-(0.5)

**Time period:** 01/08/2007 to 12/05/2011

| | # results | # ND | Results not meeting EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 59 | 0 | <4 | 0 | 0 | | 7.4 | 7.7 | 8.2 | 9.5 | 11.7 | 13.3 | 14.4 |
| | 59 | 0 | <5 | 0 | 0 | | 7.4 | 7.7 | 8.2 | 9.5 | 11.7 | 13.3 | 14.4 |
| pH (SU) | 59 | 0 | <6 | 7 | 11.9 | 62.3 | 5.2 | 5.9 | 6.1 | 6.6 | 7.3 | 7.6 | 7.9 |
| | 59 | 0 | >9 | 0 | 0 | | 5.2 | 5.9 | 6.1 | 6.6 | 7.3 | 7.6 | 7.9 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 28 | 51 | 53 | 57 | 60 | 62 | 69 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 0.4 | 4.5 | 8.5 | 16.1 | 22.8 | 24.7 | 28.6 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 2 | 0 | >100 | 0 | 0 | | 16 | 16 | 16 | 39 | 62 | 62 | 62 |
| | 5 | 0 | >100 | 0 | 0 | | 16 | 16 | 16 | 17 | 18 | 18 | 18 |
| TSS (mg/L) | 20 | 7 | N/A | | | | 3.5 | 4.7 | 6.2 | 9.6 | 15.8 | 53.3 | 1600 |
| Turbidity (NTU) | 60 | 0 | >50 | 6 | 10 | 43.7 | 1.1 | 3.1 | 4.4 | 7.2 | 15.8 | 54 | 700 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 190 | 190 | 190 | 190 | 190 | 190 | 190 |
| 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 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 260 | 260 | 260 | 260 | 260 | 260 | 260 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 1 | 0 | >200 | 0 | 0 | | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Nickel, total (Ni) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 59 | 169.4 | 12 | 20.3 | 47.4 |

**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 significance

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

**Location:** FOURTH CRK AT SR 2308 NR ELMWOOD
**Station #:** Q3735000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.76841 **Longitude:** -80.74978 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-108-20

**Time period:** 01/08/2007 to 12/05/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 59 | 0 | <4 | 0 | 0 | | 5.9 | 6.9 | 7.5 | 8.8 | 10.6 | 11.6 | 13.1 |
| | 59 | 0 | <5 | 0 | 0 | | 5.9 | 6.9 | 7.5 | 8.8 | 10.6 | 11.6 | 13.1 |
| pH (SU) | 59 | 0 | <6 | 3 | 5.1 | | 5.7 | 6.2 | 6.4 | 6.8 | 7.3 | 7.5 | 7.9 |
| | 59 | 0 | >9 | 0 | 0 | | 5.7 | 6.2 | 6.4 | 6.8 | 7.3 | 7.5 | 7.9 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 80 | 111 | 120 | 140 | 159 | 174 | 259 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 2.7 | 6.7 | 10.3 | 16 | 22.2 | 23.7 | 27.3 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 5 | 0 | N/A | | | | 40 | 40 | 40 | 44 | 47 | 48 | 48 |
| | 2 | 0 | N/A | | | | 37 | 37 | 37 | 40 | 42 | 42 | 42 |
| TSS (mg/L) | 20 | 9 | N/A | | | | 5.2 | 5.3 | 6.2 | 6.8 | 15.8 | 184.8 | 520 |
| Turbidity (NTU) | 60 | 0 | >50 | 10 | 16.7 | 92.7 | 2.7 | 5.6 | 7.6 | 12.5 | 31.8 | 89.5 | 350 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 5 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.04 | 0.07 | 0.13 | 0.22 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.47 | 0.73 | 0.88 | 1.2 | 1.95 | 2.5 | 5.1 |
| TKN as N | 57 | 2 | N/A | | | | 0.2 | 0.25 | 0.32 | 0.4 | 0.46 | 0.96 | 2.6 |
| Total Phosphorus | 60 | 0 | N/A | | | | 0.04 | 0.06 | 0.12 | 0.24 | 0.37 | 0.56 | 1.2 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 250 | 250 | 250 | 250 | 250 | 250 | 250 |
| 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 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 1 | 0 | >1000 | 0 | 0 | | 720 | 720 | 720 | 720 | 720 | 720 | 720 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| 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 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 59 | 339.3 | 22 | 37.3 | 99.8 |

**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 significance

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

**Location:** THIRD CRK AT SR 1970 NR WOODLEAF
**Station #:** Q3934500 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.76742 **Longitude:** -80.62609 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-108-20-4

**Time period:** 01/09/2007 to 12/07/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 60 | 0 | <4 | 0 | 0 | | 6.5 | 6.8 | 7.4 | 8.4 | 10.4 | 11.5 | 13 |
| | 60 | 0 | <5 | 0 | 0 | | 6.5 | 6.8 | 7.4 | 8.4 | 10.4 | 11.5 | 13 |
| pH (SU) | 60 | 0 | <6 | 2 | 3.3 | | 5.8 | 6.2 | 6.4 | 6.9 | 7.4 | 7.5 | 7.7 |
| | 60 | 0 | >9 | 0 | 0 | | 5.8 | 6.2 | 6.4 | 6.9 | 7.4 | 7.5 | 7.7 |
| Spec. conductance (umhos/cm at 25°C) | 58 | 0 | N/A | | | | 75 | 100 | 112 | 129 | 149 | 175 | 291 |
| Water Temperature (°C) | 60 | 0 | >32 | 0 | 0 | | 2.3 | 6.4 | 9.7 | 16.2 | 22.3 | 24.4 | 28 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 32 | 32 | 34 | 39 | 41 | 43 | 43 |
| TSS (mg/L) | 20 | 3 | N/A | | | | 6.2 | 6.5 | 12 | 16 | 31 | 168.1 | 327 |
| Turbidity (NTU) | 60 | 0 | >50 | 13 | 21.7 | 99.4 | 3.8 | 7.8 | 12 | 17.5 | 37 | 149 | 300 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 640 | 640 | 640 | 3120 | 5600 | 5600 | 5600 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 0 | 0 | | 2 | 2 | 2 | 5 | 7 | 7 | 7 |
| Iron, total (Fe) | 2 | 0 | >1000 | 2 | 100 | | 1300 | 1300 | 1300 | 4500 | 7700 | 7700 | 7700 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 16 | 22 | 22 | 22 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 59 | 452.7 | 26 | 44.1 | > 99.9 |

**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 significance

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

**Location:** SECOND CRK AT US 70 NR BARBER
**Station #:** Q4120000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.71840 **Longitude:** -80.59538 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-108-21

**Time period:** 01/09/2007 to 12/07/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 57 | 0 | <4 | 0 | 0 | | 4.1 | 6.8 | 7.4 | 8.9 | 10.7 | 12.1 | 13.5 |
| | 57 | 0 | <5 | 1 | 1.8 | | 4.1 | 6.8 | 7.4 | 8.9 | 10.7 | 12.1 | 13.5 |
| pH (SU) | 58 | 0 | <6 | 3 | 5.2 | | 5.5 | 6 | 6.5 | 7 | 7.3 | 7.6 | 7.8 |
| | 58 | 0 | >9 | 0 | 0 | | 5.5 | 6 | 6.5 | 7 | 7.3 | 7.6 | 7.8 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 82 | 109 | 120 | 134 | 144 | 168 | 587 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 2.5 | 5.3 | 10.3 | 15.7 | 21.6 | 24.9 | 29 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 44 | 44 | 46 | 47 | 48 | 49 | 49 |
| Total Organic Carbon (mg/L as C) | 23 | 5 | N/A | | | | 2 | 2 | 2 | 3 | 3 | 4 | 4 |
| TSS (mg/L) | 36 | 10 | N/A | | | | 6.2 | 6.2 | 8 | 12 | 23.8 | 57.3 | 150 |
| Turbidity (NTU) | 60 | 0 | >50 | 8 | 13.3 | 75.2 | 3.1 | 6.4 | 9.6 | 13.5 | 26.2 | 99 | 320 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 24 | 6 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.05 | 0.1 |
| NO2 + NO3 as N | 24 | 0 | N/A | | | | 0.25 | 0.3 | 0.42 | 0.67 | 0.75 | 0.84 | 0.86 |
| TKN as N | 21 | 4 | N/A | | | | 0.2 | 0.2 | 0.24 | 0.32 | 0.36 | 0.49 | 0.54 |
| Total Phosphorus | 24 | 0 | N/A | | | | 0.03 | 0.04 | 0.06 | 0.08 | 0.1 | 0.14 | 0.21 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 350 | 350 | 350 | 2275 | 4200 | 4200 | 4200 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 4 | 6 | 6 | 6 |
| Iron, total (Fe) | 2 | 0 | >1000 | 1 | 50 | | 770 | 770 | 770 | 3085 | 5400 | 5400 | 5400 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 14 | 18 | 18 | 18 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 60 | 304.9 | 17 | 28.3 | 92.3 |

**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 significance

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

**Location:** GRANTS CRK AT SR 1915 NR SALISBURY
**Station #:** Q4540000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.70718 **Longitude:** -80.43608 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-110

**Time period:** 01/09/2007 to 12/07/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 2 | 3.4 | | 3.2 | 5.7 | 6.4 | 7.9 | 10.2 | 11.5 | 13.8 |
| | 58 | 0 | <5 | 3 | 5.2 | | 3.2 | 5.7 | 6.4 | 7.9 | 10.2 | 11.5 | 13.8 |
| pH (SU) | 59 | 0 | <6 | 2 | 3.4 | | 5.7 | 6.2 | 6.4 | 6.8 | 7.5 | 7.7 | 8 |
| | 59 | 0 | >9 | 0 | 0 | | 5.7 | 6.2 | 6.4 | 6.8 | 7.5 | 7.7 | 8 |
| Spec. conductance (umhos/cm at 25°C) | 56 | 0 | N/A | | | | 77 | 116 | 132 | 160 | 182 | 218 | 365 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 1.6 | 5.5 | 10.2 | 16.5 | 21.7 | 23.9 | 27.8 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 36 | 36 | 37 | 52 | 61 | 63 | 63 |
| TSS (mg/L) | 20 | 11 | N/A | | | | 5 | 6.2 | 6.2 | 6.2 | 19 | 89.4 | 322 |
| Turbidity (NTU) | 60 | 0 | >50 | 6 | 10 | 43.7 | 2.1 | 4 | 5.5 | 7.6 | 18.5 | 54.5 | 270 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 58 | 19 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.03 | 0.05 | 0.06 | 0.08 |
| NO2 + NO3 as N | 58 | 1 | N/A | | | | 0.02 | 0.09 | 0.19 | 0.32 | 0.41 | 0.5 | 0.68 |
| TKN as N | 55 | 4 | N/A | | | | 0.2 | 0.21 | 0.24 | 0.32 | 0.39 | 0.57 | 1.4 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.02 | 0.03 | 0.04 | 0.05 | 0.07 | 0.14 | 0.51 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 290 | 290 | 290 | 1645 | 3000 | 3000 | 3000 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 0 | 0 | | 3 | 3 | 3 | 4 | 6 | 6 | 6 |
| Iron, total (Fe) | 2 | 0 | >1000 | 1 | 50 | | 930 | 930 | 930 | 2415 | 3900 | 3900 | 3900 |
| Lead, total (Pb) | 2 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 14 | 19 | 19 | 19 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 12 | 15 | 15 | 15 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 58 | 308.5 | 18 | 31 | 96.9 |

**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 significance

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

**Location:** YADKIN RIV AT NC 150 NR SPENCER
**Station #:** Q4660000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.72303 **Longitude:** -80.39050 **Stream class:** WS-V
**Agency:** NCAMBNT **NC stream index:** 12-(108.5)

**Time period:** 01/09/2007 to 12/07/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 0 | 0 | | 4.8 | 5.6 | 6.4 | 7.5 | 10 | 11.9 | 13.6 |
| | 58 | 0 | <5 | 2 | 3.4 | | 4.8 | 5.6 | 6.4 | 7.5 | 10 | 11.9 | 13.6 |
| pH (SU) | 59 | 0 | <6 | 5 | 8.5 | | 4.4 | 6 | 6.2 | 6.7 | 7.2 | 7.5 | 8.2 |
| | 59 | 0 | >9 | 0 | 0 | | 4.4 | 6 | 6.2 | 6.7 | 7.2 | 7.5 | 8.2 |
| Spec. conductance (umhos/cm at 25°C) | 56 | 0 | N/A | | | | 45 | 76 | 86 | 98 | 111 | 136 | 161 |
| Water Temperature (°C) | 59 | 0 | >32 | 1 | 1.7 | | 1.1 | 5.4 | 8.9 | 19.6 | 25.5 | 29 | 33.1 |
| **Other** | | | | | | | | | | | | | |
| Chlorophyll a (ug/L) | 3 | 0 | >40 | 0 | 0 | | 5 | 5 | 5 | 10 | 19 | 19 | 19 |
| Hardness (mg/L) | 1 | 0 | >100 | 0 | 0 | | 32 | 32 | 32 | 32 | 32 | 32 | 32 |
| | 5 | 0 | >100 | 0 | 0 | | 23 | 23 | 24 | 26 | 28 | 29 | 29 |
| TSS (mg/L) | 20 | 1 | N/A | | | | 6.2 | 10.1 | 12.2 | 17.5 | 25 | 164.1 | 500 |
| Turbidity (NTU) | 60 | 0 | >50 | 10 | 16.7 | 92.7 | 5.6 | 7.8 | 13 | 20 | 37.5 | 88 | 400 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 1300 | 1300 | 1300 | 5250 | 9200 | 9200 | 9200 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 1 | 50 | | 2 | 2 | 2 | 5 | 8 | 8 | 8 |
| Iron, total (Fe) | 2 | 0 | >1000 | 2 | 100 | | 1700 | 1700 | 1700 | 5400 | 9100 | 9100 | 9100 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 2 | 0 | >200 | 0 | 0 | | 100 | 100 | 100 | 130 | 160 | 160 | 160 |
| Mercury, total (Hg) (ng/L) | 1 | 1 | >12 | 0 | 0 | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Nickel, total (Ni) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 18 | 26 | 26 | 26 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 59 | 108.3 | 12 | 20.3 | 47.4 |

**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 significance

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

**Location:** TOWN CRK AT SR 2168 NR DUKE
**Station #:** Q5360000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.66353 **Longitude:** -80.35418 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-115-(2)

**Time period:** 01/09/2007 to 12/07/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 59 | 0 | <4 | 0 | 0 | | 6 | 7.5 | 8.3 | 9.3 | 10.1 | 10.9 | 12.6 |
| | 59 | 0 | <5 | 0 | 0 | | 6 | 7.5 | 8.3 | 9.3 | 10.1 | 10.9 | 12.6 |
| pH (SU) | 60 | 0 | <6 | 4 | 6.7 | | 5.8 | 6.3 | 6.5 | 7.6 | 8.8 | 9.2 | 9.5 |
| | 60 | 0 | >9 | 7 | 11.7 | 60.6 | 5.8 | 6.3 | 6.5 | 7.6 | 8.8 | 9.2 | 9.5 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 78 | 90 | 103 | 108 | 119 | 141 | 326 |
| Water Temperature (°C) | 60 | 0 | >32 | 5 | 8.3 | | 2.6 | 6.7 | 11.8 | 21.5 | 28.6 | 31.6 | 34.2 |
| **Other** | | | | | | | | | | | | | |
| Chlorophyll a (ug/L) | 58 | 0 | >40 | 26 | 44.8 | > 99.9 | 5 | 14 | 25 | 40 | 51 | 66 | 110 |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 27 | 27 | 30 | 32 | 41 | 54 | 54 |
| TSS (mg/L) | 21 | 4 | N/A | | | | 6.2 | 6.6 | 11.5 | 12 | 17.5 | 22.8 | 26 |
| Turbidity (NTU) | 61 | 0 | >25 | 10 | 16.4 | 92.0 | 5.9 | 7.4 | 9.8 | 12 | 19.5 | 45 | 85 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 44 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.1 | 0.28 |
| NO2 + NO3 as N | 60 | 30 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.17 | 0.29 | 0.38 |
| TKN as N | 57 | 0 | N/A | | | | 0.4 | 0.58 | 0.65 | 0.77 | 0.94 | 1.04 | 1.5 |
| Total Phosphorus | 59 | 0 | N/A | | | | 0.03 | 0.05 | 0.06 | 0.07 | 0.09 | 0.15 | 0.24 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 500 | 500 | 500 | 1350 | 2200 | 2200 | 2200 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 4 | 6 | 6 | 6 |
| Iron, total (Fe) | 2 | 0 | >1000 | 1 | 50 | | 590 | 590 | 590 | 1795 | 3000 | 3000 | 3000 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 14 | 17 | 17 | 17 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 58 | 11.7 | 2 | 3.4 | |

**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 significance

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

**Location:** RICH FORK AT SR 1800 NR THOMASVILLE
**Station #:** Q5780000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.92668 **Longitude:** -80.12464 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-119-7

**Time period:** 01/22/2007 to 12/14/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 57 | 0 | <4 | 1 | 1.8 | | 3.9 | 5.1 | 5.8 | 7.4 | 10.6 | 11.8 | 15.2 |
| | 57 | 0 | <5 | 4 | 7 | | 3.9 | 5.1 | 5.8 | 7.4 | 10.6 | 11.8 | 15.2 |
| pH (SU) | 56 | 0 | <6 | 0 | 0 | | 6.7 | 7 | 7.1 | 7.2 | 7.4 | 7.5 | 8.6 |
| | 56 | 0 | >9 | 0 | 0 | | 6.7 | 7 | 7.1 | 7.2 | 7.4 | 7.5 | 8.6 |
| Spec. conductance (umhos/cm at 25°C) | 55 | 0 | N/A | | | | 59 | 144 | 194 | 272 | 388 | 482 | 538 |
| Water Temperature (°C) | 58 | 0 | >32 | 0 | 0 | | 3.5 | 6.7 | 9.5 | 17.2 | 23.2 | 25 | 27.6 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 59 | 59 | 59 | 69 | 81 | 100 | 100 |
| | 1 | 0 | N/A | | | | 59 | 59 | 59 | 59 | 59 | 59 | 59 |
| TSS (mg/L) | 19 | 9 | N/A | | | | 5 | 6.2 | 6.2 | 8 | 16 | 62 | 76 |
| Turbidity (NTU) | 59 | 0 | >50 | 4 | 6.8 | | 2.2 | 3.3 | 5.4 | 9.3 | 18 | 50 | 100 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 3 | N/A | | | | 0.02 | 0.02 | 0.04 | 0.08 | 0.15 | 0.55 | 1.1 |
| NO2 + NO3 as N | 59 | 0 | N/A | | | | 0.3 | 1.1 | 1.6 | 2.4 | 5.4 | 8.9 | 12 |
| TKN as N | 58 | 0 | N/A | | | | 0.49 | 0.73 | 0.85 | 1.05 | 1.42 | 1.7 | 2.9 |
| Total Phosphorus | 59 | 0 | N/A | | | | 0.07 | 0.12 | 0.17 | 0.26 | 0.41 | 0.52 | 1.2 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 450 | 450 | 450 | 450 | 450 | 450 | 450 |
| 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 | 0 | 0 | | 740 | 740 | 740 | 740 | 740 | 740 | 740 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 1 | 1 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 0 | >50 | 0 | 0 | | 14 | 14 | 14 | 14 | 14 | 14 | 14 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 59 | 271.3 | 21 | 35.6 | 99.6 |

**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 significance

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

**Location:** HAMBY CRK AT SR 2790 NR HOLLY GROVE
**Station #:** Q5906000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.83240 **Longitude:** -80.17472 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-119-7-4

**Time period:** 01/22/2007 to 12/14/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 0 | 0 | | 4.8 | 6.1 | 7.1 | 9 | 11.6 | 13.5 | 15.7 |
| | 58 | 0 | <5 | 1 | 1.7 | | 4.8 | 6.1 | 7.1 | 9 | 11.6 | 13.5 | 15.7 |
| pH (SU) | 56 | 0 | <6 | 0 | 0 | | 7 | 7.2 | 7.3 | 7.4 | 7.6 | 7.7 | 8.3 |
| | 56 | 0 | >9 | 0 | 0 | | 7 | 7.2 | 7.3 | 7.4 | 7.6 | 7.7 | 8.3 |
| Spec. conductance (umhos/cm at 25°C) | 56 | 0 | N/A | | | | 72 | 137 | 205 | 279 | 344 | 402 | 482 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 2.1 | 6.9 | 9.4 | 16.7 | 21.7 | 24.9 | 27 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 48 | 48 | 56 | 62 | 67 | 68 | 68 |
| | 1 | 0 | N/A | | | | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| TSS (mg/L) | 20 | 16 | N/A | | | | 2.5 | 6.2 | 6.2 | 6.2 | 6.2 | 8.6 | 29 |
| Turbidity (NTU) | 60 | 0 | >50 | 2 | 3.3 | | 1 | 1.4 | 2.5 | 4 | 7.3 | 31.6 | 85 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 23 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.12 | 1 | 5.4 |
| NO2 + NO3 as N | 59 | 1 | N/A | | | | 0.02 | 0.34 | 0.59 | 0.78 | 1.7 | 8 | 16 |
| TKN as N | 58 | 0 | N/A | | | | 0.39 | 0.43 | 0.53 | 0.68 | 1.02 | 1.8 | 6.2 |
| Total Phosphorus | 60 | 0 | N/A | | | | 0.02 | 0.04 | 0.07 | 0.12 | 0.31 | 1.65 | 3.2 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 240 | 240 | 240 | 240 | 240 | 240 | 240 |
| 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 | 0 | 0 | | 420 | 420 | 420 | 420 | 420 | 420 | 420 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 1 | 1 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 0 | >50 | 0 | 0 | | 16 | 16 | 16 | 16 | 16 | 16 | 16 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 60 | 211.9 | 15 | 25 | 79.3 |

**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 significance

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

**Location:** ABBOTTS CRK AT SR 1243 AT LEXINGTON
**Station #:** Q5930000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.80629 **Longitude:** -80.23488 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 12-119-(6)

**Time period:** 01/22/2007 to 12/14/2011

| | # results | # ND | Results not meeting EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 59 | 0 | <4 | 0 | 0 | | 4.5 | 5.6 | 6.4 | 8.1 | 10.4 | 12.3 | 13 |
| | 59 | 0 | <5 | 4 | 6.8 | | 4.5 | 5.6 | 6.4 | 8.1 | 10.4 | 12.3 | 13 |
| pH (SU) | 57 | 0 | <6 | 0 | 0 | | 6.8 | 7 | 7.2 | 7.3 | 7.4 | 7.6 | 7.6 |
| | 57 | 0 | >9 | 0 | 0 | | 6.8 | 7 | 7.2 | 7.3 | 7.4 | 7.6 | 7.6 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 105 | 123 | 146 | 178 | 228 | 303 | 382 |
| Water Temperature (°C) | 59 | 0 | >32 | 0 | 0 | | 1.6 | 6 | 9.3 | 16.7 | 23.3 | 26.3 | 28.5 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 41 | 41 | 47 | 60 | 68 | 72 | 72 |
| | 1 | 0 | N/A | | | | 53 | 53 | 53 | 53 | 53 | 53 | 53 |
| Total Organic Carbon (mg/L as C) | 23 | 0 | N/A | | | | 5 | 5 | 5 | 6 | 7 | 8 | 9 |
| TSS (mg/L) | 35 | 7 | N/A | | | | 6.2 | 6.2 | 8.5 | 13 | 22 | 49.6 | 154 |
| Turbidity (NTU) | 60 | 0 | >50 | 8 | 13.3 | 75.2 | 2.6 | 5.6 | 11 | 17 | 25.8 | 64.5 | 210 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 8 | N/A | | | | 0.02 | 0.02 | 0.03 | 0.04 | 0.06 | 0.1 | 0.35 |
| NO2 + NO3 as N | 59 | 0 | N/A | | | | 0.3 | 0.42 | 0.52 | 0.65 | 0.98 | 1.8 | 6.4 |
| TKN as N | 59 | 0 | N/A | | | | 0.42 | 0.47 | 0.5 | 0.58 | 0.67 | 0.91 | 1.2 |
| Total Phosphorus | 60 | 0 | N/A | | | | 0.03 | 0.07 | 0.08 | 0.11 | 0.17 | 0.33 | 1.1 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 | 1500 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 1 | 1 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 0 | >50 | 0 | 0 | | 12 | 12 | 12 | 12 | 12 | 12 | 12 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 59 | 169.1 | 12 | 20.3 | 47.4 |

**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 significance

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

**Location:** ABBOTTS CRK AT NC 47 NR COTTON GROVE
**Station #:** Q5970000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.74795 **Longitude:** -80.24140 **Stream class:** WS-V B
**Agency:** NCAMBNT **NC stream index:** 12-118.5

**Time period:** 01/22/2007 to 12/14/2011

| | # results | # ND | Results not meeting EL: EL | # | % | %Conf | Percentiles: Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 57 | 0 | <4 | 0 | 0 | | 4.1 | 5.4 | 6.7 | 8.6 | 10.7 | 12 | 14.9 |
| | 57 | 0 | <5 | 4 | 7 | | 4.1 | 5.4 | 6.7 | 8.6 | 10.7 | 12 | 14.9 |
| pH (SU) | 58 | 0 | <6 | 0 | 0 | | 6.8 | 7 | 7.2 | 7.3 | 7.5 | 7.8 | 8.6 |
| | 58 | 0 | >9 | 0 | 0 | | 6.8 | 7 | 7.2 | 7.3 | 7.5 | 7.8 | 8.6 |
| Spec. conductance (umhos/cm at 25°C) | 56 | 0 | N/A | | | | 91 | 105 | 138 | 161 | 208 | 284 | 428 |
| Water Temperature (°C) | 58 | 0 | >32 | 2 | 3.4 | | 1.8 | 5.9 | 10.1 | 18.8 | 24.9 | 28.8 | 33.9 |
| **Other** | | | | | | | | | | | | | |
| Chlorophyll a (ug/L) | 58 | 0 | >40 | 15 | 25.9 | > 99.9 | 1 | 2 | 6 | 16 | 47 | 78 | 110 |
| Hardness (mg/L) | 1 | 0 | >100 | 0 | 0 | | 49 | 49 | 49 | 49 | 49 | 49 | 49 |
| | 6 | 0 | >100 | 0 | 0 | | 38 | 38 | 43 | 46 | 57 | 63 | 63 |
| TSS (mg/L) | 20 | 3 | N/A | | | | 6.2 | 6.2 | 9.4 | 15 | 20 | 31.2 | 41 |
| Turbidity (NTU) | 60 | 0 | >50 | 7 | 11.7 | 60.6 | 2.8 | 10.1 | 15 | 21 | 35 | 59.5 | 130 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 58 | 15 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.04 | 0.08 | 0.14 | 0.35 |
| NO2 + NO3 as N | 58 | 7 | >10 | 0 | 0 | | 0.02 | 0.02 | 0.28 | 0.48 | 0.87 | 1.22 | 4.1 |
| TKN as N | 56 | 0 | N/A | | | | 0.44 | 0.53 | 0.61 | 0.83 | 1 | 1.23 | 1.7 |
| Total Phosphorus | 59 | 0 | N/A | | | | 0.05 | 0.09 | 0.12 | 0.16 | 0.2 | 0.23 | 0.9 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| 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 | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Iron, total (Fe) | 1 | 0 | >1000 | 1 | 100 | | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 | 1800 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 1 | 0 | >200 | 0 | 0 | | 110 | 110 | 110 | 110 | 110 | 110 | 110 |
| Nickel, total (Ni) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 0 | >50 | 0 | 0 | | 12 | 12 | 12 | 12 | 12 | 12 | 12 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 60 | 92.4 | 10 | 16.7 | |

**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 significance

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

**Location:** YADKIN RIV AT SR 1002 AT HIGH ROCK
**Station #:** Q6120000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.59680 **Longitude:** -80.23128 **Stream class:** WS-IV B CA
**Agency:** NCAMBNT **NC stream index:** 12-(124.5)

**Time period:** 01/22/2007 to 12/14/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 57 | 0 | <4 | 12 | 21.1 | 99.0 | 2.2 | 3.4 | 4.4 | 7 | 10.1 | 12.6 | 16.2 |
| | 57 | 0 | <5 | 17 | 29.8 | > 99.9 | 2.2 | 3.4 | 4.4 | 7 | 10.1 | 12.6 | 16.2 |
| pH (SU) | 57 | 0 | <6 | 0 | 0 | | 6.2 | 6.9 | 7.1 | 7.3 | 7.6 | 7.9 | 9.3 |
| | 57 | 0 | >9 | 1 | 1.8 | | 6.2 | 6.9 | 7.1 | 7.3 | 7.6 | 7.9 | 9.3 |
| Spec. conductance (umhos/cm at 25°C) | 56 | 0 | N/A | | | | 44 | 82 | 89 | 99 | 109 | 129 | 184 |
| Water Temperature (°C) | 58 | 0 | >32 | 0 | 0 | | 3.8 | 6.4 | 10 | 19.4 | 25.2 | 28.6 | 30.1 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | >100 | 0 | 0 | | 20 | 20 | 22 | 25 | 27 | 28 | 28 |
| | 1 | 0 | >100 | 0 | 0 | | 29 | 29 | 29 | 29 | 29 | 29 | 29 |
| TSS (mg/L) | 18 | 4 | N/A | | | | 6.2 | 6.2 | 6.6 | 11 | 15.2 | 20.4 | 24 |
| Turbidity (NTU) | 59 | 0 | >50 | 2 | 3.4 | | 3.8 | 5.8 | 8.2 | 11 | 25 | 33 | 75 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 58 | 6 | N/A | | | | 0.02 | 0.02 | 0.05 | 0.12 | 0.18 | 0.26 | 0.57 |
| NO2 + NO3 as N | 58 | 4 | >10 | 0 | 0 | | 0.02 | 0.06 | 0.37 | 0.56 | 0.72 | 0.83 | 0.99 |
| TKN as N | 56 | 0 | N/A | | | | 0.31 | 0.44 | 0.5 | 0.58 | 0.68 | 0.75 | 1 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.04 | 0.04 | 0.06 | 0.08 | 0.1 | 0.12 | 0.15 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 | 1600 |
| 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 | | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 | 1300 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 1 | 0 | >200 | 0 | 0 | | 72 | 72 | 72 | 72 | 72 | 72 | 72 |
| Nickel, total (Ni) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 59 | 32.5 | 6 | 10.2 | |

**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 significance

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

**Location:** UWHARRIE RIV AT NC 109 NR UWHARRIE
**Station #:** Q6810000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.43121 **Longitude:** -80.01640 **Stream class:** WS-IV B
**Agency:** NCAMBNT **NC stream index:** 13-2-(17.5)

**Time period:** 01/03/2007 to 12/20/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 53 | 0 | <4 | 0 | 0 | | 4.7 | 5.5 | 6.6 | 9.2 | 11.6 | 12.9 | 14.1 |
| | 53 | 0 | <5 | 2 | 3.8 | | 4.7 | 5.5 | 6.6 | 9.2 | 11.6 | 12.9 | 14.1 |
| pH (SU) | 56 | 0 | <6 | 1 | 1.8 | | 5.3 | 6.3 | 6.7 | 7 | 7.4 | 7.5 | 7.9 |
| | 56 | 0 | >9 | 0 | 0 | | 5.3 | 6.3 | 6.7 | 7 | 7.4 | 7.5 | 7.9 |
| Spec. conductance (umhos/cm at 25°C) | 56 | 0 | N/A | | | | 64 | 72 | 87 | 96 | 105 | 114 | 141 |
| Water Temperature (°C) | 57 | 0 | >32 | 0 | 0 | | 3.3 | 5.6 | 9.6 | 15.6 | 24.6 | 27.7 | 29.2 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 1 | 0 | >100 | 0 | 0 | | 39 | 39 | 39 | 39 | 39 | 39 | 39 |
| | 6 | 0 | >100 | 0 | 0 | | 27 | 27 | 32 | 34 | 36 | 37 | 37 |
| TSS (mg/L) | 20 | 14 | N/A | | | | 3 | 3.8 | 6.2 | 6.2 | 12 | 15.6 | 130 |
| Turbidity (NTU) | 57 | 0 | >50 | 2 | 3.5 | | 1.9 | 3 | 4.7 | 7.4 | 17 | 31 | 180 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 120 | 120 | 120 | 470 | 820 | 820 | 820 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 2 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 2 | 0 | >1000 | 0 | 0 | | 330 | 330 | 330 | 665 | 1000 | 1000 | 1000 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 2 | 0 | >200 | 0 | 0 | | 18 | 18 | 18 | 19 | 20 | 20 | 20 |
| Mercury, total (Hg) (ng/L) | 1 | 1 | >12 | 0 | 0 | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Nickel, total (Ni) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 57 | 64.2 | 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 significance

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

**Location:** PEE DEE RIV AT NC 731 NR SHANKLE
**Station #:** Q7150000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.20052 **Longitude:** -80.06248 **Stream class:** WS-V B
**Agency:** NCAMBNT **NC stream index:** 13-(15.5)

**Time period:** 01/17/2007 to 12/19/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 12 | 20.7 | 98.9 | 1.3 | 2.7 | 5.2 | 7.6 | 9.8 | 12.4 | 15.7 |
| | 58 | 0 | <5 | 14 | 24.1 | 99.9 | 1.3 | 2.7 | 5.2 | 7.6 | 9.8 | 12.4 | 15.7 |
| pH (SU) | 59 | 0 | <6 | 7 | 11.9 | 62.3 | 5.2 | 5.9 | 6.2 | 6.6 | 7.1 | 7.9 | 8.5 |
| | 59 | 0 | >9 | 0 | 0 | | 5.2 | 5.9 | 6.2 | 6.6 | 7.1 | 7.9 | 8.5 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 61 | 79 | 88 | 92 | 99 | 105 | 113 |
| Water Temperature (°C) | 60 | 0 | >32 | 0 | 0 | | 5.2 | 9.2 | 10.8 | 19 | 25.6 | 27.2 | 29.6 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | >100 | 0 | 0 | | 20 | 20 | 23 | 24 | 26 | 28 | 28 |
| | 1 | 0 | >100 | 0 | 0 | | 24 | 24 | 24 | 24 | 24 | 24 | 24 |
| TSS (mg/L) | 20 | 16 | N/A | | | | 5 | 6.2 | 6.2 | 6.2 | 6.2 | 10.6 | 12 |
| Turbidity (NTU) | 60 | 0 | >50 | 1 | 1.7 | | 1.9 | 2 | 2.5 | 3.6 | 7.8 | 13.9 | 120 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 19 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.04 | 0.1 | 0.17 |
| NO2 + NO3 as N | 59 | 2 | >10 | 0 | 0 | | 0.02 | 0.1 | 0.2 | 0.46 | 0.59 | 0.75 | 0.8 |
| TKN as N | 59 | 1 | N/A | | | | 0.2 | 0.27 | 0.31 | 0.37 | 0.42 | 0.49 | 0.58 |
| Total Phosphorus | 59 | 0 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 | 0.06 | 0.27 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 770 | 770 | 770 | 1135 | 1500 | 1500 | 1500 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 2 | 0 | >1000 | 1 | 50 | | 620 | 620 | 620 | 1210 | 1800 | 1800 | 1800 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 2 | 0 | >200 | 0 | 0 | | 29 | 29 | 29 | 32 | 35 | 35 | 35 |
| Nickel, total (Ni) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 60 | 17.1 | 1 | 1.7 | |

**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 significance

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

**Location:** ROCKY RIV AT SR 2420 NR DAVIDSON
**Station #:** Q7330000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.47490 **Longitude:** -80.77948 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-17

**Time period:** 01/16/2007 to 12/12/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 59 | 0 | <4 | 0 | 0 | | 4.5 | 6.6 | 7 | 8.4 | 9.8 | 11.4 | 14.6 |
| | 59 | 0 | <5 | 1 | 1.7 | | 4.5 | 6.6 | 7 | 8.4 | 9.8 | 11.4 | 14.6 |
| pH (SU) | 59 | 0 | <6 | 1 | 1.7 | | 5.9 | 6.6 | 6.9 | 7.2 | 7.6 | 7.8 | 8.6 |
| | 59 | 0 | >9 | 0 | 0 | | 5.9 | 6.6 | 6.9 | 7.2 | 7.6 | 7.8 | 8.6 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 126 | 209 | 283 | 349 | 416 | 499 | 594 |
| Water Temperature (°C) | 60 | 0 | >32 | 0 | 0 | | 2.6 | 7.9 | 10.6 | 17.4 | 23.3 | 26.3 | 27.5 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 57 | 57 | 57 | 62 | 80 | 85 | 85 |
| | 1 | 0 | N/A | | | | 78 | 78 | 78 | 78 | 78 | 78 | 78 |
| TSS (mg/L) | 20 | 2 | N/A | | | | 6.2 | 6.9 | 12.2 | 18.5 | 28 | 69.1 | 830 |
| Turbidity (NTU) | 60 | 0 | >50 | 7 | 11.7 | 60.6 | 3.7 | 6.1 | 9.2 | 14.5 | 22 | 64 | 700 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 58 | 26 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.16 | 1.2 |
| NO2 + NO3 as N | 58 | 0 | N/A | | | | 0.63 | 1.59 | 3.25 | 7.1 | 12 | 16 | 23 |
| TKN as N | 55 | 3 | N/A | | | | 0.2 | 0.4 | 0.54 | 0.67 | 0.83 | 1 | 2.1 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.25 | 0.31 | 0.54 | 0.94 | 1.7 | 2.52 | 3.5 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 480 | 480 | 480 | 535 | 590 | 590 | 590 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 0 | 0 | | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| Iron, total (Fe) | 2 | 0 | >1000 | 0 | 0 | | 920 | 920 | 920 | 950 | 980 | 980 | 980 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 1 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 0 | >50 | 0 | 0 | | 25 | 25 | 25 | 28 | 32 | 32 | 32 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 59 | 404.5 | 28 | 47.5 | > 99.9 |

**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 significance

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

**Location:** IRISH BUFFALO CRK AT SR 1132 NR FAGGARTS
**Station #:** Q8090000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.34730 **Longitude:** -80.54769 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-17-9-(2)

**Time period:** 01/09/2007 to 12/08/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 60 | 0 | <4 | 0 | 0 | | 6.6 | 7.4 | 8 | 9.8 | 11.3 | 13.1 | 15.2 |
| | 60 | 0 | <5 | 0 | 0 | | 6.6 | 7.4 | 8 | 9.8 | 11.3 | 13.1 | 15.2 |
| pH (SU) | 59 | 0 | <6 | 1 | 1.7 | | 5.8 | 6.4 | 6.8 | 7.2 | 7.8 | 8.2 | 8.7 |
| | 59 | 0 | >9 | 0 | 0 | | 5.8 | 6.4 | 6.8 | 7.2 | 7.8 | 8.2 | 8.7 |
| Spec. conductance (umhos/cm at 25°C) | 56 | 0 | N/A | | | | 89 | 121 | 164 | 182 | 196 | 205 | 1689 |
| Water Temperature (°C) | 60 | 0 | >32 | 0 | 0 | | 1.1 | 6.9 | 10.6 | 16.4 | 24.2 | 25.6 | 27.1 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 43 | 43 | 46 | 57 | 63 | 74 | 74 |
| TSS (mg/L) | 20 | 13 | N/A | | | | 6.2 | 6.2 | 6.2 | 6.6 | 12 | 47.8 | 283 |
| Turbidity (NTU) | 60 | 0 | >50 | 9 | 15 | 85.8 | 1.2 | 1.7 | 2.7 | 5.4 | 9.7 | 90 | 310 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 110 | 110 | 110 | 1355 | 2600 | 2600 | 2600 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 4 | 5 | 5 | 5 |
| Iron, total (Fe) | 2 | 0 | >1000 | 1 | 50 | | 240 | 240 | 240 | 1720 | 3200 | 3200 | 3200 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Mercury, total (Hg) (ng/L) | 1 | 1 | >12 | 0 | 0 | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 14 | 18 | 18 | 18 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 59 | 231.6 | 15 | 25.4 | 81.2 |

**Key:**
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Stations with less than 10 results for a given parameter were not evaluated for statistical significance

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

**Location:** ROCKY RIV AT SR 1006 NR CONCORD
**Station #:** Q8220000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.31397 **Longitude:** -80.47864 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-17

**Time period:** 01/09/2007 to 12/08/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | results | ND | EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 60 | 0 | <4 | 0 | 0 | | 4.9 | 6.8 | 7.7 | 8.9 | 10.1 | 11.4 | 13.3 |
| | 60 | 0 | <5 | 1 | 1.7 | | 4.9 | 6.8 | 7.7 | 8.9 | 10.1 | 11.4 | 13.3 |
| pH (SU) | 59 | 0 | <6 | 1 | 1.7 | | 5.7 | 6.3 | 6.7 | 7 | 7.4 | 7.7 | 8.1 |
| | 59 | 0 | >9 | 0 | 0 | | 5.7 | 6.3 | 6.7 | 7 | 7.4 | 7.7 | 8.1 |
| Spec. conductance (umhos/cm at 25°C) | 56 | 0 | N/A | | | | 76 | 134 | 204 | 264 | 334 | 416 | 492 |
| Water Temperature (°C) | 60 | 0 | >32 | 0 | 0 | | 2.6 | 6.8 | 12.2 | 18.7 | 25.4 | 27.9 | 30.1 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 53 | 53 | 54 | 66 | 68 | 69 | 69 |
| TSS (mg/L) | 20 | 6 | N/A | | | | 6.2 | 6.2 | 6.2 | 9.1 | 28 | 198.6 | 216 |
| Turbidity (NTU) | 60 | 0 | >50 | 12 | 20 | 98.5 | 1.5 | 2.9 | 4.2 | 11.5 | 34.8 | 120 | 600 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 57 | 10 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.05 | 0.13 | 0.23 | 1.1 |
| NO2 + NO3 as N | 57 | 0 | N/A | | | | 0.42 | 0.84 | 2.4 | 4.2 | 7.1 | 10.2 | 14 |
| TKN as N | 53 | 0 | N/A | | | | 0.4 | 0.57 | 0.65 | 0.8 | 0.94 | 1.62 | 2.4 |
| Total Phosphorus | 56 | 0 | N/A | | | | 0.25 | 0.32 | 0.45 | 0.72 | 1.1 | 1.63 | 2.9 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 310 | 310 | 310 | 2955 | 5600 | 5600 | 5600 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 1 | 50 | | 3 | 3 | 3 | 6 | 10 | 10 | 10 |
| Iron, total (Fe) | 2 | 0 | >1000 | 1 | 50 | | 580 | 580 | 580 | 3890 | 7200 | 7200 | 7200 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 0 | >50 | 0 | 0 | | 12 | 12 | 12 | 17 | 22 | 22 | 22 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 59 | 229.7 | 18 | 30.5 | 96.3 |

**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 significance

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

**Location:** GOOSE CRK AT SR 1524 NR MINT HILL
**Station #:** Q8360000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.13090 **Longitude:** -80.63105 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-17-18

**Time period:** 01/25/2007 to 12/08/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 60 | 0 | <4 | 0 | 0 | | 4.6 | 6.4 | 7 | 8.4 | 10.4 | 13.1 | 14.9 |
| | 60 | 0 | <5 | 1 | 1.7 | | 4.6 | 6.4 | 7 | 8.4 | 10.4 | 13.1 | 14.9 |
| pH (SU) | 58 | 0 | <6 | 1 | 1.7 | | 5.7 | 6.2 | 6.5 | 7 | 7.6 | 8 | 9.3 |
| | 58 | 0 | >9 | 2 | 3.4 | | 5.7 | 6.2 | 6.5 | 7 | 7.6 | 8 | 9.3 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 80 | 98 | 118 | 133 | 144 | 159 | 212 |
| Water Temperature (°C) | 60 | 0 | >32 | 0 | 0 | | 3.8 | 7.2 | 12.2 | 15.8 | 23 | 25.4 | 27.1 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 36 | 36 | 37 | 42 | 50 | 50 | 50 |
| | 1 | 0 | N/A | | | | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| TSS (mg/L) | 54 | 37 | N/A | | | | 6.2 | 6.2 | 6.2 | 6.2 | 9.9 | 16 | 26 |
| Turbidity (NTU) | 60 | 0 | >50 | 4 | 6.7 | | 1 | 2 | 3.5 | 6.1 | 14.8 | 48.9 | 100 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 41 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.05 | 0.1 |
| NO2 + NO3 as N | 59 | 0 | N/A | | | | 0.09 | 0.21 | 0.41 | 0.59 | 0.84 | 1.2 | 2.2 |
| TKN as N | 58 | 4 | N/A | | | | 0.2 | 0.21 | 0.25 | 0.35 | 0.5 | 0.63 | 1 |
| Total Phosphorus | 59 | 0 | N/A | | | | 0.02 | 0.05 | 0.07 | 0.12 | 0.16 | 0.21 | 1.6 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 920 | 920 | 920 | 920 | 920 | 920 | 920 |
| 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 | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Iron, total (Fe) | 1 | 0 | >1000 | 1 | 100 | | 1200 | 1200 | 1200 | 1200 | 1200 | 1200 | 1200 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 1 | 1 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 0 | >50 | 0 | 0 | | 12 | 12 | 12 | 12 | 12 | 12 | 12 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 60 | 390 | 27 | 45 | > 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)
Stations with less than 10 results for a given parameter were not evaluated for statistical significance

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

**Location:** GOOSE CRK AT SR 1547 NR BRIEF
**Station #:** Q8374000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.17587 **Longitude:** -80.51129 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-17-18

**Time period:** 11/05/2007 to 12/08/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 50 | 0 | <4 | 1 | 2 | | 3.9 | 6.4 | 7.1 | 8.5 | 10.7 | 13 | 16.7 |
| | 50 | 0 | <5 | 1 | 2 | | 3.9 | 6.4 | 7.1 | 8.5 | 10.7 | 13 | 16.7 |
| pH (SU) | 48 | 0 | <6 | 1 | 2.1 | | 5.7 | 6.2 | 6.5 | 7 | 7.5 | 8 | 9 |
| | 48 | 0 | >9 | 0 | 0 | | 5.7 | 6.2 | 6.5 | 7 | 7.5 | 8 | 9 |
| Spec. conductance (umhos/cm at 25°C) | 48 | 0 | N/A | | | | 96 | 110 | 136 | 168 | 195 | 241 | 312 |
| Water Temperature (°C) | 50 | 0 | >32 | 0 | 0 | | 1.1 | 6.7 | 10.2 | 15.5 | 22.3 | 25.5 | 27.8 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 1 | 0 | N/A | | | | 46 | 46 | 46 | 46 | 46 | 46 | 46 |
| | 6 | 0 | N/A | | | | 27 | 27 | 42 | 50 | 52 | 55 | 55 |
| TSS (mg/L) | 50 | 35 | N/A | | | | 6.2 | 6.2 | 6.2 | 6.2 | 9.2 | 22 | 170 |
| Turbidity (NTU) | 50 | 3 | >50 | 3 | 6 | | 1 | 2 | 2.7 | 6.8 | 16.5 | 29.9 | 150 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 49 | 26 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.05 | 4.2 |
| NO2 + NO3 as N | 49 | 3 | N/A | | | | 0.02 | 0.06 | 0.28 | 0.91 | 1.65 | 2.4 | 11 |
| TKN as N | 48 | 0 | N/A | | | | 0.37 | 0.44 | 0.55 | 0.6 | 0.74 | 1.11 | 5.8 |
| Total Phosphorus | 49 | 0 | N/A | | | | 0.05 | 0.11 | 0.16 | 0.21 | 0.29 | 0.37 | 0.45 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 50 | 214.8 | 12 | 24 | 71.1 |

**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 significance

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

**Location:** LONG CRK AT SR 1917 NR ROCKY RIVER SPRINGS
**Station #:** Q8720000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.22392 **Longitude:** -80.25857 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-17-31

**Time period:** 01/17/2007 to 12/19/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | results | ND | EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 0 | 0 | | 6 | 6.8 | 7.4 | 9.6 | 11.5 | 13.6 | 15.5 |
| | 58 | 0 | <5 | 0 | 0 | | 6 | 6.8 | 7.4 | 9.6 | 11.5 | 13.6 | 15.5 |
| pH (SU) | 59 | 0 | <6 | 1 | 1.7 | | 5.7 | 6.4 | 6.8 | 7.2 | 7.7 | 8.4 | 8.8 |
| | 59 | 0 | >9 | 0 | 0 | | 5.7 | 6.4 | 6.8 | 7.2 | 7.7 | 8.4 | 8.8 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 80 | 106 | 132 | 169 | 240 | 334 | 398 |
| Water Temperature (°C) | 60 | 0 | >32 | 0 | 0 | | 1.8 | 6.1 | 9.7 | 16.8 | 23.8 | 28.7 | 30.5 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 40 | 40 | 41 | 43 | 52 | 60 | 60 |
| | 1 | 0 | N/A | | | | 47 | 47 | 47 | 47 | 47 | 47 | 47 |
| TSS (mg/L) | 20 | 18 | N/A | | | | 2.5 | 2.9 | 6.2 | 6.2 | 6.2 | 10.6 | 12 |
| Turbidity (NTU) | 60 | 3 | >50 | 1 | 1.7 | | 1 | 1.3 | 1.8 | 2.8 | 6.7 | 18.8 | 55 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 1 | 1 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| NO2 + NO3 as N | 1 | 0 | N/A | | | | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| TKN as N | 1 | 0 | N/A | | | | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 | 0.35 |
| Total Phosphorus | 1 | 0 | N/A | | | | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 | 0.06 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 53 | 53 | 53 | 136 | 220 | 220 | 220 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 1 | 50 | | 5 | 5 | 5 | 6 | 7 | 7 | 7 |
| Iron, total (Fe) | 2 | 0 | >1000 | 0 | 0 | | 160 | 160 | 160 | 245 | 330 | 330 | 330 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 0 | >50 | 0 | 0 | | 10 | 10 | 10 | 11 | 12 | 12 | 12 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 60 | 110.3 | 10 | 16.7 | |

**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 significance

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

**Location:** RICHARDSON CRK AT SR 1649 NR FAIRFIELD
**Station #:** Q8917000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.07111 **Longitude:** -80.40662 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-17-36-(5)

**Time period:** 01/17/2007 to 12/19/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 0 | 0 | | 6 | 6.5 | 7.4 | 9.1 | 10.8 | 13.6 | 15.6 |
| | 58 | 0 | <5 | 0 | 0 | | 6 | 6.5 | 7.4 | 9.1 | 10.8 | 13.6 | 15.6 |
| pH (SU) | 59 | 0 | <6 | 0 | 0 | | 6.3 | 6.6 | 6.9 | 7.3 | 7.6 | 8.2 | 8.9 |
| | 59 | 0 | >9 | 0 | 0 | | 6.3 | 6.6 | 6.9 | 7.3 | 7.6 | 8.2 | 8.9 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 113 | 151 | 206 | 455 | 752 | 913 | 1010 |
| Water Temperature (°C) | 60 | 0 | >32 | 0 | 0 | | 3 | 6.6 | 10.3 | 17.4 | 25.8 | 28.1 | 29.5 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 18 | 18 | 43 | 68 | 138 | 163 | 163 |
| | 1 | 0 | N/A | | | | 160 | 160 | 160 | 160 | 160 | 160 | 160 |
| TSS (mg/L) | 20 | 18 | N/A | | | | 2.5 | 5.1 | 6.2 | 6.2 | 6.2 | 11.4 | 13 |
| Turbidity (NTU) | 60 | 2 | >50 | 2 | 3.3 | | 1 | 1.1 | 1.6 | 3.6 | 8.1 | 28.6 | 260 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 25 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.05 | 0.1 | 0.38 |
| NO2 + NO3 as N | 59 | 0 | N/A | | | | 1.9 | 3 | 4.4 | 9.2 | 19 | 26 | 30 |
| TKN as N | 57 | 2 | N/A | | | | 0.2 | 0.7 | 0.86 | 1 | 1.2 | 1.6 | 2.5 |
| Total Phosphorus | 59 | 0 | N/A | | | | 0.32 | 0.46 | 0.56 | 1 | 2 | 2.7 | 3.6 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 56 | 56 | 56 | 138 | 220 | 220 | 220 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 0 | 0 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Iron, total (Fe) | 2 | 0 | >1000 | 0 | 0 | | 87 | 87 | 87 | 308 | 530 | 530 | 530 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 0 | >50 | 0 | 0 | | 12 | 12 | 12 | 19 | 26 | 26 | 26 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 60 | 98.4 | 8 | 13.3 | |

**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 significance

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

**Location:** ROCKY RIV AT SR 1935 NR NORWOOD
**Station #:** Q9120000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.15688 **Longitude:** -80.16583 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-17

**Time period:** 01/25/2007 to 12/19/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 58 | 0 | <4 | 1 | 1.7 | | 0.9 | 6.4 | 7.2 | 8.8 | 10.9 | 13.2 | 15.3 |
| | 58 | 0 | <5 | 1 | 1.7 | | 0.9 | 6.4 | 7.2 | 8.8 | 10.9 | 13.2 | 15.3 |
| pH (SU) | 59 | 0 | <6 | 2 | 3.4 | | 5.7 | 6.3 | 6.6 | 7 | 7.7 | 8.5 | 9.6 |
| | 59 | 0 | >9 | 2 | 3.4 | | 5.7 | 6.3 | 6.6 | 7 | 7.7 | 8.5 | 9.6 |
| Spec. conductance (umhos/cm at 25°C) | 58 | 0 | N/A | | | | 83 | 124 | 145 | 188 | 267 | 345 | 511 |
| Water Temperature (°C) | 60 | 0 | >32 | 1 | 1.7 | | 2.2 | 6.8 | 10.1 | 18 | 26.8 | 30.2 | 32.3 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 32 | 32 | 45 | 52 | 68 | 79 | 79 |
| | 1 | 0 | N/A | | | | 71 | 71 | 71 | 71 | 71 | 71 | 71 |
| TSS (mg/L) | 20 | 8 | N/A | | | | 2.5 | 6.2 | 6.2 | 8 | 16 | 61.4 | 101 |
| Turbidity (NTU) | 60 | 0 | >50 | 13 | 21.7 | 99.4 | 1.9 | 3.3 | 6.9 | 13 | 43.2 | 127 | 170 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 56 | 31 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.04 | 0.07 | 0.18 |
| NO2 + NO3 as N | 56 | 0 | N/A | | | | 0.82 | 1.47 | 1.8 | 2.35 | 3.53 | 4.71 | 7.6 |
| TKN as N | 54 | 0 | N/A | | | | 0.41 | 0.48 | 0.57 | 0.71 | 0.84 | 1.1 | 2 |
| Total Phosphorus | 56 | 0 | N/A | | | | 0.15 | 0.19 | 0.27 | 0.38 | 0.49 | 0.79 | 1.2 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 140 | 140 | 140 | 720 | 1300 | 1300 | 1300 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 0 | 0 | | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| Iron, total (Fe) | 2 | 0 | >1000 | 1 | 50 | | 210 | 210 | 210 | 905 | 1600 | 1600 | 1600 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 11 | 12 | 12 | 12 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 60 | 126.5 | 10 | 16.7 | |

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

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

**Location:** BROWN CRK AT SR 1627 NR PINKSTON
**Station #:** Q9155000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.06372 **Longitude:** -80.05283 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-20

**Time period:** 01/09/2007 to 12/08/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 55 | 0 | <4 | 24 | 43.6 | > 99.9 | 0.4 | 1.4 | 2.2 | 5.1 | 8.4 | 11.2 | 14 |
| | 55 | 0 | <5 | 27 | 49.1 | > 99.9 | 0.4 | 1.4 | 2.2 | 5.1 | 8.4 | 11.2 | 14 |
| pH (SU) | 52 | 0 | <6 | 2 | 3.8 | | 5.8 | 6.3 | 6.4 | 6.7 | 6.9 | 7.1 | 7.5 |
| | 52 | 0 | >9 | 0 | 0 | | 5.8 | 6.3 | 6.4 | 6.7 | 6.9 | 7.1 | 7.5 |
| Spec. conductance (umhos/cm at 25°C) | 51 | 0 | N/A | | | | 60 | 82 | 96 | 126 | 149 | 174 | 212 |
| Water Temperature (°C) | 56 | 0 | >32 | 0 | 0 | | 0.2 | 5.8 | 10.2 | 16.4 | 22.9 | 25.4 | 28.5 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 5 | 0 | N/A | | | | 31 | 31 | 36 | 42 | 48 | 51 | 51 |
| TSS (mg/L) | 19 | 9 | N/A | | | | 6.2 | 6.2 | 6.2 | 7 | 12 | 20 | 23 |
| Turbidity (NTU) | 56 | 0 | >50 | 0 | 0 | | 2.2 | 5.1 | 6.7 | 13 | 19 | 25.9 | 40 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 860 | 860 | 860 | 1330 | 1800 | 1800 | 1800 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 0 | 0 | | 3 | 3 | 3 | 4 | 5 | 5 | 5 |
| Iron, total (Fe) | 2 | 0 | >1000 | 2 | 100 | | 1600 | 1600 | 1600 | 1850 | 2100 | 2100 | 2100 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 56 | 59.5 | 2 | 3.6 | |

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

**Location:** PEE DEE RIV AT NC 109 NR MANGUM
**Station #:** Q9160000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.08591 **Longitude:** -79.99888 **Stream class:** WS-V B
**Agency:** NCAMBNT **NC stream index:** 13-(15.5)

**Time period:** 01/09/2007 to 12/08/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 50 | 0 | <4 | 1 | 2 | | 3.8 | 4.5 | 5.5 | 7.6 | 10.1 | 11.3 | 12.4 |
| | 50 | 0 | <5 | 8 | 16 | 87.8 | 3.8 | 4.5 | 5.5 | 7.6 | 10.1 | 11.3 | 12.4 |
| pH (SU) | 46 | 0 | <6 | 1 | 2.2 | | 5.7 | 6.5 | 6.7 | 6.8 | 7.2 | 7.4 | 7.9 |
| | 46 | 0 | >9 | 0 | 0 | | 5.7 | 6.5 | 6.7 | 6.8 | 7.2 | 7.4 | 7.9 |
| Spec. conductance (umhos/cm at 25°C) | 45 | 0 | N/A | | | | 78 | 94 | 101 | 105 | 128 | 140 | 151 |
| Water Temperature (°C) | 50 | 0 | >32 | 0 | 0 | | 4.4 | 7.2 | 11.8 | 18.2 | 26.1 | 28.1 | 29.7 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 3 | 0 | >100 | 0 | 0 | | 26 | 26 | 26 | 31 | 33 | 33 | 33 |
| TSS (mg/L) | 16 | 1 | N/A | | | | 6.2 | 6.9 | 8.9 | 14.5 | 24.5 | 187.7 | 530 |
| Turbidity (NTU) | 49 | 0 | >50 | 2 | 4.1 | | 4.1 | 7.3 | 9.9 | 13 | 23 | 30 | 130 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 48 | 20 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.05 | 0.08 |
| NO2 + NO3 as N | 48 | 0 | >10 | 0 | 0 | | 0.06 | 0.18 | 0.36 | 0.67 | 0.86 | 1.4 | 1.4 |
| TKN as N | 46 | 0 | N/A | | | | 0.22 | 0.33 | 0.38 | 0.46 | 0.54 | 0.69 | 0.84 |
| Total Phosphorus | 48 | 0 | N/A | | | | 0.04 | 0.06 | 0.08 | 0.11 | 0.15 | 0.17 | 0.27 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 1 | 0 | N/A | | | | 940 | 940 | 940 | 940 | 940 | 940 | 940 |
| 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 | | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Iron, total (Fe) | 1 | 0 | >1000 | 1 | 100 | | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 | 1100 |
| Lead, total (Pb) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Manganese, total (Mn) | 1 | 0 | >200 | 0 | 0 | | 66 | 66 | 66 | 66 | 66 | 66 | 66 |
| Nickel, total (Ni) | 1 | 1 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 1 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 48 | 88.8 | 2 | 4.2 | |

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

**Location:** LITTLE RIV AT SR 1340 NR STAR
**Station #:** Q9200000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.38722 **Longitude:** -79.83152 **Stream class:** C HQW
**Agency:** NCAMBNT **NC stream index:** 13-25-(11.5)

**Time period:** 01/03/2007 to 12/20/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 54 | 0 | <4 | 0 | 0 | | 5 | 5.4 | 6.7 | 9.1 | 11.6 | 13 | 17.1 |
| | 54 | 0 | <5 | 0 | 0 | | 5 | 5.4 | 6.7 | 9.1 | 11.6 | 13 | 17.1 |
| pH (SU) | 57 | 0 | <6 | 1 | 1.8 | | 5.2 | 6.4 | 6.6 | 6.9 | 7.2 | 7.4 | 7.9 |
| | 57 | 0 | >9 | 0 | 0 | | 5.2 | 6.4 | 6.6 | 6.9 | 7.2 | 7.4 | 7.9 |
| Spec. conductance (umhos/cm at 25°C) | 57 | 0 | N/A | | | | 33 | 54 | 60 | 69 | 74 | 82 | 103 |
| Water Temperature (°C) | 58 | 0 | >32 | 0 | 0 | | 2.7 | 4.8 | 8.7 | 15.2 | 22.6 | 25.7 | 27.1 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 22 | 22 | 22 | 24 | 26 | 28 | 28 |
| | 1 | 0 | N/A | | | | 23 | 23 | 23 | 23 | 23 | 23 | 23 |
| TSS (mg/L) | 20 | 16 | N/A | | | | 2.5 | 4.2 | 6.2 | 6.2 | 7.4 | 13.8 | 34 |
| Turbidity (NTU) | 57 | 0 | >50 | 4 | 7 | | 1.6 | 2.5 | 4.2 | 6.9 | 13.5 | 46 | 500 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 57 | 37 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 |
| NO2 + NO3 as N | 57 | 13 | N/A | | | | 0.02 | 0.02 | 0.03 | 0.16 | 0.23 | 0.31 | 0.48 |
| TKN as N | 57 | 1 | N/A | | | | 0.2 | 0.25 | 0.34 | 0.42 | 0.52 | 0.75 | 2.2 |
| Total Phosphorus | 57 | 0 | N/A | | | | 0.02 | 0.04 | 0.05 | 0.08 | 0.11 | 0.14 | 0.74 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 130 | 130 | 130 | 615 | 1100 | 1100 | 1100 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 2 | 0 | >1000 | 0 | 0 | | 110 | 110 | 110 | 305 | 500 | 500 | 500 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Mercury, total (Hg) (ng/L) | 1 | 1 | >12 | 0 | 0 | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 58 | 105.3 | 8 | 13.8 | |

**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 significance

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

**Location:** PEE DEE RIV AT US 74 NR ROCKINGHAM
**Station #:** Q9400000 **Hydrologic Unit Code:** 3040201
**Latitude:** 34.94567 **Longitude:** -79.86910 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-(34)

**Time period:** 01/09/2007 to 12/08/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 54 | 0 | <4 | 7 | 13 | 70.7 | 2 | 3.4 | 5.1 | 7.4 | 9.6 | 11.4 | 13.9 |
| | 54 | 0 | <5 | 13 | 24.1 | 99.8 | 2 | 3.4 | 5.1 | 7.4 | 9.6 | 11.4 | 13.9 |
| pH (SU) | 51 | 0 | <6 | 1 | 2 | | 5.6 | 6.3 | 6.5 | 6.8 | 7 | 7.5 | 7.7 |
| | 51 | 0 | >9 | 0 | 0 | | 5.6 | 6.3 | 6.5 | 6.8 | 7 | 7.5 | 7.7 |
| Spec. conductance (umhos/cm at 25°C) | 50 | 0 | N/A | | | | 81 | 88 | 95 | 103 | 112 | 120 | 140 |
| Water Temperature (°C) | 55 | 0 | >32 | 0 | 0 | | 3.8 | 8.1 | 12.6 | 18.8 | 26 | 28.5 | 29.6 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 25 | 25 | 25 | 27 | 30 | 30 | 30 |
| TSS (mg/L) | 20 | 4 | N/A | | | | 6.2 | 6.2 | 6.3 | 9.5 | 12 | 17.9 | 56 |
| Turbidity (NTU) | 56 | 0 | >50 | 1 | 1.8 | | 3.8 | 5.4 | 6.8 | 10.5 | 19 | 24 | 55 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 1200 | 1200 | 1200 | 1400 | 1600 | 1600 | 1600 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 0 | >7 | 0 | 0 | | 2 | 2 | 2 | 4 | 5 | 5 | 5 |
| Iron, total (Fe) | 2 | 0 | >1000 | 2 | 100 | | 1300 | 1300 | 1300 | 1700 | 2100 | 2100 | 2100 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 11 | 11 | 11 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 56 | 39.1 | 2 | 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 significance

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

**Location:** HITCHCOCK CRK AT SR 1109 AT CORDOVA
**Station #:** Q9660000 **Hydrologic Unit Code:** 3040201
**Latitude:** 34.91837 **Longitude:** -79.83003 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-39-(10)

**Time period:** 01/09/2007 to 12/08/2011

| | # results | # ND | Results not meeting EL EL | # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 56 | 0 | <4 | 1 | 1.8 | | 0.2 | 6.5 | 7.2 | 9.1 | 11.1 | 13.3 | 16.7 |
| | 56 | 0 | <5 | 2 | 3.6 | | 0.2 | 6.5 | 7.2 | 9.1 | 11.1 | 13.3 | 16.7 |
| pH (SU) | 53 | 0 | <6 | 4 | 7.5 | | 5 | 6 | 6.3 | 6.5 | 6.8 | 7.2 | 7.9 |
| | 53 | 0 | >9 | 0 | 0 | | 5 | 6 | 6.3 | 6.5 | 6.8 | 7.2 | 7.9 |
| Spec. conductance (umhos/cm at 25°C) | 52 | 0 | N/A | | | | 32 | 38 | 41 | 45 | 50 | 59 | 87 |
| Water Temperature (°C) | 57 | 0 | >32 | 0 | 0 | | 3.1 | 7.2 | 10.5 | 17.6 | 23.5 | 27.3 | 30.1 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 10 | 10 | 12 | 14 | 18 | 18 | 18 |
| TSS (mg/L) | 20 | 11 | N/A | | | | 6.2 | 6.2 | 6.2 | 6.2 | 9.1 | 17.6 | 31 |
| Turbidity (NTU) | 57 | 0 | >50 | 0 | 0 | | 2.8 | 3.3 | 4 | 5.2 | 7.2 | 9.7 | 24 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 57 | 18 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 | 0.08 |
| NO2 + NO3 as N | 57 | 0 | N/A | | | | 0.05 | 0.09 | 0.12 | 0.17 | 0.3 | 0.41 | 0.47 |
| TKN as N | 56 | 0 | N/A | | | | 0.28 | 0.31 | 0.34 | 0.38 | 0.42 | 0.47 | 0.63 |
| Total Phosphorus | 57 | 2 | N/A | | | | 0.02 | 0.02 | 0.02 | 0.03 | 0.04 | 0.05 | 0.08 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 450 | 450 | 450 | 460 | 470 | 470 | 470 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 2 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 2 | 0 | >1000 | 0 | 0 | | 790 | 790 | 790 | 880 | 970 | 970 | 970 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 12 | 13 | 13 | 13 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 57 | 73.8 | 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 significance

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

**Location:** JONES CRK AT NC 145 NR PEE DEE
**Station #:** Q9777000 **Hydrologic Unit Code:** 3040201
**Latitude:** 34.90432 **Longitude:** -79.93047 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-42

**Time period:** 01/09/2007 to 12/08/2011

| | # results | # ND | Results not meeting EL: EL | # | % | %Conf | Percentiles: Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 55 | 0 | <4 | 3 | 5.5 | | 2.7 | 5.5 | 6.7 | 8.8 | 11 | 12.3 | 14.5 |
| | 55 | 0 | <5 | 3 | 5.5 | | 2.7 | 5.5 | 6.7 | 8.8 | 11 | 12.3 | 14.5 |
| pH (SU) | 51 | 0 | <6 | 3 | 5.9 | | 5.7 | 6.1 | 6.4 | 6.8 | 7.1 | 7.3 | 7.5 |
| | 51 | 0 | >9 | 0 | 0 | | 5.7 | 6.1 | 6.4 | 6.8 | 7.1 | 7.3 | 7.5 |
| Spec. conductance (umhos/cm at 25°C) | 51 | 0 | N/A | | | | 31 | 39 | 64 | 78 | 88 | 93 | 109 |
| Water Temperature (°C) | 56 | 0 | >32 | 0 | 0 | | 0.7 | 5.4 | 9.5 | 15.4 | 22.1 | 25.4 | 29.7 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 20 | 20 | 20 | 24 | 26 | 29 | 29 |
| TSS (mg/L) | 18 | 11 | N/A | | | | 3.2 | 5.9 | 6.2 | 8.6 | 12 | 15.3 | 27 |
| Turbidity (NTU) | 54 | 0 | >50 | 2 | 3.7 | | 2.4 | 4 | 5.2 | 8 | 11.2 | 17 | 160 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 220 | 220 | 220 | 710 | 1200 | 1200 | 1200 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 2 | 0 | >1000 | 2 | 100 | | 1100 | 1100 | 1100 | 1750 | 2400 | 2400 | 2400 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Mercury, total (Hg) (ng/L) | 1 | 1 | >12 | 0 | 0 | | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 55 | 153.5 | 7 | 12.7 | |

**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 significance

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

**Location:** MARKS CRK AT SR 1812 NR HAMLET
**Station #:** Q9940000 **Hydrologic Unit Code:** 3040201
**Latitude:** 34.86257 **Longitude:** -79.71915 **Stream class:** C
**Agency:** NCAMBNT **NC stream index:** 13-45-(2)

**Time period:** 01/22/2007 to 12/20/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 57 | 0 | <4 | 17 | 29.8 | > 99.9 | 0.6 | 2.1 | 3.5 | 5.5 | 8.2 | 10.2 | 11 |
| | 57 | 0 | <5 | 25 | 43.9 | > 99.9 | 0.6 | 2.1 | 3.5 | 5.5 | 8.2 | 10.2 | 11 |
| pH (SU) | 54 | 0 | <6 | 21 | 38.9 | > 99.9 | 4.8 | 5.4 | 5.8 | 6 | 6.3 | 6.7 | 7.6 |
| | 54 | 0 | >9 | 0 | 0 | | 4.8 | 5.4 | 5.8 | 6 | 6.3 | 6.7 | 7.6 |
| Spec. conductance (umhos/cm at 25°C) | 55 | 0 | N/A | | | | 32 | 39 | 41 | 45 | 47 | 52 | 107 |
| Water Temperature (°C) | 58 | 0 | >32 | 0 | 0 | | 2.1 | 7.6 | 11.3 | 18.5 | 24 | 26.1 | 29.7 |
| **Other** | | | | | | | | | | | | | |
| Hardness (mg/L) | 6 | 0 | N/A | | | | 9 | 9 | 10 | 12 | 14 | 15 | 15 |
| TSS (mg/L) | 19 | 17 | N/A | | | | 2.5 | 2.5 | 6.2 | 6.2 | 12 | 12 | 110 |
| Turbidity (NTU) | 58 | 3 | >50 | 1 | 1.7 | | 1 | 1.2 | 1.7 | 2.6 | 4.8 | 7.9 | 55 |
| **Metals (ug/L)** | | | | | | | | | | | | | |
| Aluminum, total (Al) | 2 | 0 | N/A | | | | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| Arsenic, total (As) | 2 | 2 | >10 | 0 | 0 | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| Cadmium, total (Cd) | 2 | 2 | >2 | 0 | 0 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Chromium, total (Cr) | 2 | 2 | >50 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Copper, total (Cu) | 2 | 1 | >7 | 0 | 0 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Iron, total (Fe) | 2 | 0 | >1000 | 0 | 0 | | 850 | 850 | 850 | 900 | 950 | 950 | 950 |
| Lead, total (Pb) | 2 | 2 | >25 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Nickel, total (Ni) | 2 | 2 | >88 | 0 | 0 | | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| Zinc, total (Zn) | 2 | 1 | >50 | 0 | 0 | | 10 | 10 | 10 | 14 | 19 | 19 | 19 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 57 | 103.5 | 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 significance

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

**Location:** REDDIES RIV AT SR 1517 AT N WILKESBORO
**Station #:** Q0360000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.17430 **Longitude:** -81.16930 **Stream class:** WS II HQW
**Agency:** YPDRBA **NC stream index:** 12-40-(1)

**Time period:** 01/21/2007 to 12/04/2011

| | # results | # ND | Results not meeting EL EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.9 | 6.5 | 7 | 7.9 | 8.8 | 11.1 | 12.8 |
| | 85 | 0 | <5 | 0 | 0 | | 5.9 | 6.5 | 7 | 7.9 | 8.8 | 11.1 | 12.8 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.2 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.2 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 5 | N/A | | | | 50 | 54 | 60 | 66 | 72 | 78 | 102 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 3.3 | 6.9 | 12.6 | 18.5 | 23.2 | 25.3 | 27 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 0 | 0 | | 2.1 | 3.5 | 5.2 | 8.8 | 13.8 | 17 | 32 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 17 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.05 | 0.08 | 0.17 | 0.21 |
| NO2 + NO3 as N | 60 | 0 | >10 | 0 | 0 | | 0.08 | 0.35 | 0.43 | 0.5 | 0.59 | 0.66 | 0.9 |
| TKN as N | 60 | 21 | N/A | | | | 0.2 | 0.2 | 0.2 | 0.27 | 0.43 | 0.7 | 1.23 |
| Total Phosphorus | 58 | 8 | N/A | | | | 0.02 | 0.02 | 0.05 | 0.08 | 0.13 | 0.2 | 0.55 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 116.3 | 1 | 6.2 | |

**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 significance

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

**Location:** YADKIN RIV AT US 421 BUS AT N WILKESBORO
**Station #:** Q0450000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.16597 **Longitude:** -81.13447 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-(38)

**Time period:** 01/21/2007 to 12/04/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.7 | 6.6 | 7 | 7.9 | 9 | 11.2 | 12.6 |
| | 85 | 0 | <5 | 0 | 0 | | 5.7 | 6.6 | 7 | 7.9 | 9 | 11.2 | 12.6 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.7 | 6.8 | 7 | 7.2 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.7 | 6.8 | 7 | 7.2 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 6 | N/A | | | | 50 | 52 | 60 | 68 | 76 | 84 | 105 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 3.3 | 6.8 | 12.3 | 18.6 | 23.4 | 24.9 | 26.6 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 0 | 0 | | 1.3 | 3.7 | 5 | 7.6 | 14 | 19.8 | 40 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 13 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.04 | 0.08 | 0.14 | 0.31 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.2 | 0.25 | 0.33 | 0.41 | 0.56 | 0.73 | 1.28 |
| TKN as N | 60 | 23 | N/A | | | | 0.16 | 0.2 | 0.2 | 0.25 | 0.47 | 0.83 | 1.23 |
| Total Phosphorus | 58 | 5 | N/A | | | | 0.02 | 0.02 | 0.04 | 0.06 | 0.12 | 0.2 | 0.64 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 120.3 | 1 | 6.2 | |

**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 significance

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

**Location:** YADKIN RIV AT SR 2303 AT RONDA
**Station #:** Q0720000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.21548 **Longitude:** -80.93678 **Stream class:** WS-IV
**Agency:** YPDRBA **NC stream index:** 12-(47.5)

**Time period:** 01/21/2007 to 12/04/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6 | 6.5 | 7.1 | 8 | 9 | 11.3 | 12.5 |
| | 85 | 0 | <5 | 0 | 0 | | 6 | 6.5 | 7.1 | 8 | 9 | 11.3 | 12.5 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 1 | N/A | | | | 50 | 59 | 63 | 71 | 80 | 84 | 107 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 3.5 | 6.9 | 12.6 | 18.9 | 23.7 | 25.3 | 27.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 1 | 1.7 | | 1.7 | 5.1 | 7.8 | 13 | 16 | 23 | 52 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 8 | N/A | | | | 0.01 | 0.01 | 0.03 | 0.06 | 0.1 | 0.16 | 0.3 |
| NO2 + NO3 as N | 60 | 0 | >10 | 0 | 0 | | 0.15 | 0.34 | 0.45 | 0.62 | 0.76 | 0.89 | 1.1 |
| TKN as N | 60 | 12 | N/A | | | | 0.18 | 0.2 | 0.2 | 0.33 | 0.55 | 0.9 | 1.33 |
| Total Phosphorus | 58 | 1 | N/A | | | | 0.02 | 0.04 | 0.05 | 0.09 | 0.12 | 0.23 | 0.64 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 132.8 | 1 | 6.2 | |

**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 significance

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

**Location:** MITCHELL RIV AT SR 1001 NR NORTH ELKIN
**Station #:** Q1065000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.31137 **Longitude:** -80.80656 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-62-(12.5)

**Time period:** 01/22/2007 to 12/04/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.6 | 7.1 | 7.4 | 8.3 | 10.2 | 12.3 | 13.2 |
| | 85 | 0 | <5 | 0 | 0 | | 6.6 | 7.1 | 7.4 | 8.3 | 10.2 | 12.3 | 13.2 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 2 | N/A | | | | 50 | 64 | 77 | 92 | 106 | 118 | 126 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 1.3 | 4.7 | 9.6 | 17.7 | 21.6 | 24 | 25.7 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 4 | 6.7 | | 1.3 | 2.5 | 4.4 | 8 | 16 | 26.9 | 550 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 18 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.04 | 0.08 | 0.14 | 0.42 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.11 | 0.16 | 0.24 | 0.33 | 0.41 | 0.52 | 1.95 |
| TKN as N | 60 | 29 | N/A | | | | 0.2 | 0.2 | 0.2 | 0.22 | 0.47 | 0.91 | 2.59 |
| Total Phosphorus | 58 | 6 | N/A | | | | 0.02 | 0.02 | 0.03 | 0.05 | 0.08 | 0.11 | 0.62 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 116.9 | 1 | 6.2 | |

**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 significance

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

**Location:** FISHER RIV AT NC 268 NR FAIRVIEW
**Station #:** Q1215000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.33953 **Longitude:** -80.68520 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-63-(9)

**Time period:** 01/22/2007 to 12/04/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.4 | 6.8 | 7.3 | 8.2 | 10.1 | 12.3 | 13.3 |
| | 85 | 0 | <5 | 0 | 0 | | 6.4 | 6.8 | 7.3 | 8.2 | 10.1 | 12.3 | 13.3 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.7 | 6.8 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.7 | 6.8 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 1 | N/A | | | | 50 | 72 | 90 | 106 | 118 | 126 | 148 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 1.3 | 5 | 10 | 18 | 22 | 24.2 | 26.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 6 | 10 | 43.7 | 1.9 | 2.9 | 5.8 | 12.5 | 26 | 58.5 | 750 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 17 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.04 | 0.09 | 0.22 | 0.41 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.32 | 0.69 | 0.77 | 0.94 | 1.12 | 1.36 | 1.8 |
| TKN as N | 60 | 19 | N/A | | | | 0.2 | 0.2 | 0.2 | 0.32 | 0.57 | 0.96 | 2.89 |
| Total Phosphorus | 58 | 2 | N/A | | | | 0.02 | 0.06 | 0.08 | 0.13 | 0.22 | 0.37 | 0.77 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 107 | 1 | 6.2 | |

**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 significance

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

**Location:** YADKIN RIV AT SR 1003 NR SILOAM
**Station #:** Q1350000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.28238 **Longitude:** -80.56223 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-(53)

**Time period:** 01/22/2007 to 12/04/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 84 | 0 | <4 | 0 | 0 | | 6.3 | 6.8 | 7.3 | 8.2 | 10.2 | 12 | 13 |
| | 84 | 0 | <5 | 0 | 0 | | 6.3 | 6.8 | 7.3 | 8.2 | 10.2 | 12 | 13 |
| pH (SU) | 84 | 0 | <6 | 0 | 0 | | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 84 | 0 | >9 | 0 | 0 | | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 84 | 0 | N/A | | | | 66 | 82 | 94 | 103 | 114 | 120 | 130 |
| Water Temperature (°C) | 84 | 0 | >29 | 0 | 0 | | 2.1 | 6.1 | 11 | 19.5 | 23 | 25.2 | 26.6 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 59 | 0 | >50 | 5 | 8.5 | | 3.1 | 4.4 | 8.6 | 14 | 34 | 48 | 110 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 13 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.04 | 0.08 | 0.17 | 0.64 |
| NO2 + NO3 as N | 59 | 0 | N/A | | | | 0.42 | 0.48 | 0.54 | 0.68 | 0.77 | 0.9 | 0.95 |
| TKN as N | 59 | 11 | N/A | | | | 0.2 | 0.2 | 0.25 | 0.42 | 0.69 | 1.1 | 1.84 |
| Total Phosphorus | 57 | 1 | N/A | | | | 0.02 | 0.05 | 0.07 | 0.12 | 0.15 | 0.23 | 0.49 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 92.5 | 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 significance

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

**Location:** ARARAT RIV AT US 52 NR MT AIRY
**Station #:** Q1500000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.47995 **Longitude:** -80.60035 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-72-(4.5)

**Time period:** 01/22/2007 to 12/04/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.4 | 6.7 | 7.3 | 8 | 10 | 11.8 | 12.8 |
| | 85 | 0 | <5 | 0 | 0 | | 6.4 | 6.7 | 7.3 | 8 | 10 | 11.8 | 12.8 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.3 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.3 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 64 | 90 | 104 | 118 | 130 | 154 | 203 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 1.2 | 5.4 | 10.6 | 18.9 | 22.4 | 24.4 | 26.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 5 | 8.3 | | 2.2 | 3.8 | 5.5 | 11 | 18.2 | 49.5 | 700 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 102.2 | 1 | 6.2 | |

**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 significance

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

**Location:** ARARAT RIV AT WWTP RD AT MT AIRY WWTP
**Station #:** Q1550000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.47703 **Longitude:** -80.60452 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-72-(4.5)

**Time period:** 01/22/2007 to 12/04/2011

| | # results | # ND | Results not meeting EL EL | # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6 | 6.5 | 6.8 | 7.8 | 9.4 | 11.4 | 12.4 |
| | 85 | 0 | <5 | 0 | 0 | | 6 | 6.5 | 6.8 | 7.8 | 9.4 | 11.4 | 12.4 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 6.8 | 6.9 | 7.1 | 7.2 | 7.2 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 6.8 | 6.9 | 7.1 | 7.2 | 7.2 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 78 | 106 | 126 | 148 | 191 | 224 | 278 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 1.4 | 5.7 | 10.8 | 18.9 | 22.5 | 24.5 | 26.2 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 5 | 8.3 | | 1.8 | 3.6 | 5.3 | 11 | 19.5 | 37.6 | 450 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 178.4 | 1 | 6.2 | |

**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 significance

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

**Location:** ARARAT RIV AT SR 2119 NR MT AIRY
**Station #:** Q1725000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.45172 **Longitude:** -80.60915 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-72-(4.5)

**Time period:** 01/22/2007 to 12/04/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.2 | 6.6 | 6.9 | 7.8 | 9.5 | 11.7 | 12.7 |
| | 85 | 0 | <5 | 0 | 0 | | 6.2 | 6.6 | 6.9 | 7.8 | 9.5 | 11.7 | 12.7 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 64 | 89 | 108 | 142 | 166 | 198 | 256 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 1.6 | 5.6 | 10.9 | 18.8 | 22.4 | 24.3 | 26 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 5 | 8.3 | | 2.2 | 3.4 | 5.2 | 9.7 | 17.8 | 37.6 | 550 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 147.6 | 1 | 6.2 | |

**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 significance

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

**Location:** ARARAT RIV AT SR 2044 NR PILOT MOUNTAIN
**Station #:** Q1935000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.36262 **Longitude:** -80.53938 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-72-(4.5)

**Time period:** 01/22/2007 to 12/04/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.4 | 6.6 | 7 | 8 | 10 | 11.9 | 12.7 |
| | 85 | 0 | <5 | 0 | 0 | | 6.4 | 6.6 | 7 | 8 | 10 | 11.9 | 12.7 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 69 | 94 | 110 | 120 | 133 | 147 | 183 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 1.7 | 5.5 | 10.7 | 18.7 | 22.7 | 24.6 | 25.9 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 6 | 10 | 43.7 | 2.5 | 3.7 | 6.3 | 12 | 20.2 | 54.5 | 950 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 88.2 | 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 significance

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

**Location:** N DEEP CRK AT SR 1605 NR YADKINVILLE
**Station #:** Q2090000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.13618 **Longitude:** -80.63003 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-84-1-(0.5)

**Time period:** 01/22/2007 to 07/28/2008

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 27 | 0 | <4 | 0 | 0 | | 5.7 | 6.2 | 6.4 | 7.5 | 10.5 | 11.3 | 12.4 |
| | 27 | 0 | <5 | 0 | 0 | | 5.7 | 6.2 | 6.4 | 7.5 | 10.5 | 11.3 | 12.4 |
| pH (SU) | 27 | 0 | <6 | 0 | 0 | | 6.6 | 6.7 | 6.9 | 7 | 7.1 | 7.1 | 7.2 |
| | 27 | 0 | >9 | 0 | 0 | | 6.6 | 6.7 | 6.9 | 7 | 7.1 | 7.1 | 7.2 |
| Spec. conductance (umhos/cm at 25°C) | 27 | 0 | N/A | | | | 75 | 106 | 122 | 139 | 155 | 171 | 181 |
| Water Temperature (°C) | 27 | 0 | >29 | 0 | 0 | | 5.7 | 6.3 | 9 | 19.4 | 23.2 | 24.6 | 25.2 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 19 | 0 | >50 | 1 | 5.3 | | 8.1 | 11 | 13 | 20 | 33 | 50 | 180 |

**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 significance

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

**Location:** N DEEP CRK AT SR 1510 NR YADKINVILLE
**Station #:** Q2120000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.12590 **Longitude:** -80.59183 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-84-1-(0.5)

**Time period:** 01/22/2007 to 12/04/2011

| | # results | # ND | Results not meeting EL EL | # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.1 | 6.5 | 7 | 8 | 9.6 | 11.5 | 12.3 |
| | 85 | 0 | <5 | 0 | 0 | | 6.1 | 6.5 | 7 | 8 | 9.6 | 11.5 | 12.3 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.4 | 6.7 | 6.9 | 7 | 7.2 | 7.3 | 7.5 |
| | 85 | 0 | >9 | 0 | 0 | | 6.4 | 6.7 | 6.9 | 7 | 7.2 | 7.3 | 7.5 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 65 | 91 | 96 | 114 | 126 | 142 | 170 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 1.8 | 6.4 | 11.1 | 18.9 | 23.2 | 24.8 | 26 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 9 | 15 | 85.8 | 6.3 | 8.1 | 12 | 18.5 | 34 | 129 | 850 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 236.7 | 2 | 12.5 | |

**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 significance

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

**Location:** S DEEP CRK AT SR 1733 NR SHACKTOWN
**Station #:** Q2135000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.10648 **Longitude:** -80.58765 **Stream class:** WS-IV
**Agency:** YPDRBA **NC stream index:** 12-84-2-(5.5)

**Time period:** 01/22/2007 to 12/04/2011

| | # results | # ND | Results not meeting EL EL | # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.9 | 6.5 | 6.8 | 7.9 | 9.6 | 11 | 12 |
| | 85 | 0 | <5 | 0 | 0 | | 5.9 | 6.5 | 6.8 | 7.9 | 9.6 | 11 | 12 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.4 | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.4 | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 72 | 105 | 118 | 128 | 152 | 166 | 191 |
| Water Temperature (°C) | 85 | 0 | >29 | 0 | 0 | | 2.1 | 6.7 | 11 | 19 | 23.2 | 25 | 26.2 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 11 | 18.3 | > 99.9 | 4 | 8.3 | 11.2 | 16.5 | 34.8 | 110 | 500 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 200.7 | 1 | 6.2 | |

**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 significance

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

**Location:** YADKIN RIV AT US 158 AT CLEMMONS
**Station #:** Q2180000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.01437 **Longitude:** -80.41637 **Stream class:** WS-IV
**Agency:** YPDRBA **NC stream index:** 12-(86.7)

**Time period:** 01/22/2007 to 12/05/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 84 | 0 | <4 | 0 | 0 | | 6.4 | 6.7 | 7.1 | 8 | 10.1 | 11.4 | 12.4 |
| | 84 | 0 | <5 | 0 | 0 | | 6.4 | 6.7 | 7.1 | 8 | 10.1 | 11.4 | 12.4 |
| pH (SU) | 84 | 0 | <6 | 0 | 0 | | 6.6 | 7 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 84 | 0 | >9 | 0 | 0 | | 6.6 | 7 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 84 | 0 | N/A | | | | 60 | 92 | 97 | 109 | 120 | 128 | 155 |
| Water Temperature (°C) | 84 | 0 | >32 | 0 | 0 | | 2.7 | 6.4 | 10.1 | 20 | 23.9 | 25.6 | 27 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 59 | 0 | >50 | 14 | 23.7 | 99.8 | 4.1 | 8.6 | 11 | 21 | 50 | 80 | 220 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 7 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.05 | 0.1 | 0.13 | 0.54 |
| NO2 + NO3 as N | 59 | 0 | >10 | 0 | 0 | | 0.18 | 0.42 | 0.48 | 0.59 | 0.67 | 0.77 | 0.93 |
| TKN as N | 59 | 9 | N/A | | | | 0.2 | 0.2 | 0.29 | 0.38 | 0.6 | 1.08 | 3.37 |
| Total Phosphorus | 57 | 2 | N/A | | | | 0.02 | 0.05 | 0.06 | 0.11 | 0.15 | 0.21 | 0.57 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 15 | 104 | 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 significance

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

**Location:** MUDDY CRK AT I 40 NR CLEMMONS
**Station #:** Q2291000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.04700 **Longitude:** -80.36623 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-94-(0.5)

**Time period:** 01/23/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.7 | 6.9 | 7.4 | 8 | 10 | 11.7 | 13.4 |
| | 85 | 0 | <5 | 0 | 0 | | 6.7 | 6.9 | 7.4 | 8 | 10 | 11.7 | 13.4 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.7 | 6.8 | 7 | 7.1 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.7 | 6.8 | 7 | 7.1 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 79 | 100 | 118 | 126 | 143 | 165 | 207 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.1 | 4.4 | 8.8 | 17.5 | 21.7 | 23.4 | 24.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 4 | 6.7 | | 2.6 | 6.6 | 10.2 | 14 | 21.8 | 39.6 | 500 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 133.3 | 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 significance

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

**Location:** SALEM CRK AT SR 2740 REYNOLDS PARK RD NR WINSTON SALEM
**Station #:** Q2479455 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.08843 **Longitude:** -80.21208 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-94-12-(4)

**Time period:** 01/23/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.6 | 6.9 | 7.2 | 7.9 | 10 | 11.3 | 12.6 |
| | 85 | 0 | <5 | 0 | 0 | | 6.6 | 6.9 | 7.2 | 7.9 | 10 | 11.3 | 12.6 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 93 | 106 | 118 | 130 | 142 | 158 | 194 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.2 | 5 | 8.5 | 17.2 | 21.6 | 23.3 | 24.4 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 3 | 5 | | 2.4 | 7.5 | 11 | 14 | 22.8 | 36.5 | 160 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 157.4 | 1 | 6.2 | |

**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 significance

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

**Location:** SALEM CRK AT SR 1120 CLEMMONSVILLE RD AT WINSTON SALEM
**Station #:** Q2540000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.03115 **Longitude:** -80.31372 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-94-12-(4)

**Time period:** 01/23/2007 to 12/05/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.5 | 6.7 | 7 | 7.9 | 9.6 | 11.3 | 12.5 |
| | 85 | 0 | <5 | 0 | 0 | | 6.5 | 6.7 | 7 | 7.9 | 9.6 | 11.3 | 12.5 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 90 | 123 | 142 | 159 | 184 | 216 | 270 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.3 | 5.9 | 10.1 | 18.4 | 22.5 | 24.3 | 25.7 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 3 | 5 | | 2.1 | 4.2 | 5.6 | 8.7 | 15.8 | 39.8 | 330 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 3 | N/A | | | | 0.01 | 0.06 | 0.1 | 0.18 | 0.27 | 0.39 | 1.08 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.44 | 0.6 | 0.88 | 1.09 | 1.25 | 1.36 | 1.63 |
| TKN as N | 60 | 3 | N/A | | | | 0.2 | 0.22 | 0.34 | 0.5 | 0.77 | 1.16 | 3.76 |
| Total Phosphorus | 58 | 4 | N/A | | | | 0.02 | 0.03 | 0.05 | 0.06 | 0.1 | 0.14 | 0.53 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 134.3 | 1 | 6.2 | |

**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 significance

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

**Location:** SALEM CRK AT SR 2991 FRATERNITY CHURCH RD NR WINSTON SALEM
**Station #:** Q2570000 **Hydrologic Unit Code:** 3040101
**Latitude:** 36.00855 **Longitude:** -80.33528 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-94-12-(4)

**Time period:** 01/23/2007 to 12/05/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.2 | 6.5 | 6.7 | 7.7 | 9.3 | 10.5 | 11.9 |
| | 85 | 0 | <5 | 0 | 0 | | 6.2 | 6.5 | 6.7 | 7.7 | 9.3 | 10.5 | 11.9 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.4 | 6.7 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.4 | 6.7 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 124 | 166 | 189 | 223 | 266 | 313 | 735 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.9 | 6.5 | 10.6 | 19 | 23 | 24.7 | 26 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 3 | 5 | | 3.8 | 5.4 | 6.4 | 10 | 17 | 34 | 180 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 4 | N/A | | | | 0.01 | 0.04 | 0.09 | 0.16 | 0.22 | 0.31 | 0.41 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 1.37 | 2.14 | 3.82 | 5.14 | 6.98 | 8.46 | 12.6 |
| TKN as N | 60 | 1 | N/A | | | | 0.2 | 0.67 | 0.88 | 1.12 | 1.54 | 1.83 | 3.98 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.05 | 0.46 | 0.83 | 1.28 | 2.24 | 2.81 | 4.63 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 162.2 | 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 significance

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

**Location:** MUDDY CRK AT SR 1485 NR WINSTON SALEM
**Station #:** Q2720000 **Hydrologic Unit Code:** 3040101
**Latitude:** 35.94020 **Longitude:** -80.35800 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-94-(0.5)

**Time period:** 01/23/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.1 | 6.5 | 6.8 | 7.8 | 9.3 | 11.2 | 12.1 |
| | 85 | 0 | <5 | 0 | 0 | | 6.1 | 6.5 | 6.8 | 7.8 | 9.3 | 11.2 | 12.1 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.4 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.4 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 103 | 138 | 176 | 205 | 264 | 314 | 500 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.5 | 5.8 | 10.2 | 19.3 | 23 | 24.8 | 26 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 7 | 11.7 | 60.6 | 5.1 | 7.5 | 9.2 | 15.5 | 29 | 64 | 450 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 5 | N/A | | | | 0.01 | 0.02 | 0.07 | 0.1 | 0.15 | 0.46 | 0.87 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.86 | 1.32 | 2.24 | 3 | 3.85 | 5.06 | 6.38 |
| TKN as N | 60 | 2 | N/A | | | | 0.2 | 0.42 | 0.55 | 0.76 | 0.97 | 1.39 | 2.46 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.11 | 0.29 | 0.4 | 0.64 | 0.99 | 1.41 | 1.97 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 144.5 | 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 significance

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

**Location:** YADKIN RIV AT US 64 AT YADKIN COLLEGE
**Station #:** Q2810000 **Hydrologic Unit Code:** 3040101
**Latitude:** 35.85700 **Longitude:** -80.38628 **Stream class:** WS-IV CA
**Agency:** YPDRBA **NC stream index:** 12-(97.5)

**Time period:** 01/23/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.7 | 7 | 7.4 | 8 | 9.7 | 11.6 | 13 |
| | 85 | 0 | <5 | 0 | 0 | | 6.7 | 7 | 7.4 | 8 | 9.7 | 11.6 | 13 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 82 | 93 | 100 | 112 | 122 | 134 | 185 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.3 | 6.4 | 10.6 | 20.1 | 23.2 | 25 | 26.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 11 | 18.3 | 96.6 | 5.9 | 12.1 | 16.2 | 25 | 43.8 | 64.5 | 270 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 9 | N/A | | | | 0.01 | 0.01 | 0.03 | 0.07 | 0.11 | 0.18 | 0.58 |
| NO2 + NO3 as N | 60 | 0 | >10 | 0 | 0 | | 0.29 | 0.63 | 0.79 | 1.02 | 1.39 | 1.94 | 3.29 |
| TKN as N | 60 | 6 | N/A | | | | 0.2 | 0.21 | 0.35 | 0.54 | 0.83 | 1.27 | 4.65 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.04 | 0.09 | 0.13 | 0.18 | 0.29 | 0.64 | 0.92 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 82.6 | 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 significance

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

**Location:** DUTCHMAN CRK AT US 64 NR MOCKSVILLE
**Station #:** Q3105000 **Hydrologic Unit Code:** 3040101
**Latitude:** 35.88107 **Longitude:** -80.50118 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-102-(2)

**Time period:** 01/23/2007 to 12/05/2011

| | # results | # ND | Results not meeting EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.6 | 6.9 | 7.4 | 7.9 | 10 | 11.2 | 12.8 |
| | 85 | 0 | <5 | 0 | 0 | | 6.6 | 6.9 | 7.4 | 7.9 | 10 | 11.2 | 12.8 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 92 | 105 | 116 | 129 | 140 | 163 | 302 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.8 | 6 | 9.7 | 18.8 | 22.6 | 24 | 25 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 3 | 5 | | 3.7 | 6.3 | 9.7 | 15 | 22 | 32 | 240 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 106.1 | 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 significance

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

**Location:** BEAR CRK AT SR 1116 JUNCTION RD NR COOLEEMEE
**Station #:** Q3555000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.82560 **Longitude:** -80.58500 **Stream class:** WS-IV
**Agency:** YPDRBA **NC stream index:** 12-108-18-(3)

**Time period:** 01/22/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.3 | 5.8 | 6.4 | 7.4 | 9.1 | 10.4 | 11.5 |
| | 85 | 0 | <5 | 0 | 0 | | 5.3 | 5.8 | 6.4 | 7.4 | 9.1 | 10.4 | 11.5 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.6 | 6.8 | 6.9 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.6 | 6.8 | 6.9 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 102 | 124 | 138 | 163 | 194 | 215 | 241 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.6 | 7.5 | 11.1 | 20.1 | 24.6 | 26.5 | 27.9 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 5 | 8.3 | | 4.4 | 7.5 | 8.7 | 13 | 25 | 49.5 | 850 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 230 | 3 | 18.8 | |

**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 significance

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

**Location:** FOURTH CRK AT SR 2316 BELL FARM RD NR STATESVILLE
**Station #:** Q3720000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.77607 **Longitude:** -80.79582 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-108-20

**Time period:** 01/22/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.8 | 6.3 | 6.8 | 7.9 | 9.8 | 11 | 11.7 |
| | 85 | 0 | <5 | 0 | 0 | | 5.8 | 6.3 | 6.8 | 7.9 | 9.8 | 11 | 11.7 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 98 | 111 | 120 | 130 | 161 | 183 | 228 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.1 | 7.1 | 10.8 | 19.5 | 24 | 25.6 | 27.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 7 | 11.7 | 60.6 | 3.6 | 6.4 | 9.2 | 13.5 | 22.5 | 60.4 | 500 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 151.5 | 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 significance

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

**Location:** FOURTH CRK AT SR 2308 NR ELMWOOD
**Station #:** Q3735000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.76841 **Longitude:** -80.74978 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-108-20

**Time period:** 01/22/2007 to 12/05/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.8 | 6.3 | 6.8 | 7.9 | 9.4 | 11.1 | 11.9 |
| | 85 | 0 | <5 | 0 | 0 | | 5.8 | 6.3 | 6.8 | 7.9 | 9.4 | 11.1 | 11.9 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.9 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.9 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 94 | 118 | 130 | 150 | 178 | 205 | 260 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.4 | 7.3 | 11.1 | 20 | 24 | 25.9 | 27.2 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 8 | 13.3 | 75.2 | 3.7 | 8.6 | 10 | 14.5 | 26 | 60 | 360 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 122.9 | 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 significance

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

**Location:** THIRD CRK AT SR 2342 AMITY HILL RD NR STATESVILLE
**Station #:** Q3900000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.74920 **Longitude:** -80.87748 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-108-20-4

**Time period:** 01/22/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6 | 6.3 | 6.8 | 7.9 | 9.8 | 11.3 | 11.8 |
| | 85 | 0 | <5 | 0 | 0 | | 6 | 6.3 | 6.8 | 7.9 | 9.8 | 11.3 | 11.8 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.2 | 6.8 | 6.9 | 7.1 | 7.2 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.2 | 6.8 | 6.9 | 7.1 | 7.2 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 73 | 93 | 113 | 126 | 144 | 160 | 216 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.5 | 7 | 10.6 | 19.8 | 24.3 | 26.2 | 27.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 7 | 11.7 | 60.6 | 4.3 | 8.4 | 10.2 | 15 | 27.2 | 60 | 250 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 156.2 | 1 | 6.2 | |

**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 significance

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

**Location:** THIRD CRK AT SR 2359 BETHESDA RD NR STATESVILLE
**Station #:** Q3932000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.73302 **Longitude:** -80.80395 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-108-20-4

**Time period:** 01/22/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.5 | 6.4 | 6.7 | 7.9 | 9.8 | 11.2 | 11.6 |
| | 85 | 0 | <5 | 0 | 0 | | 5.5 | 6.4 | 6.7 | 7.9 | 9.8 | 11.2 | 11.6 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.4 | 6.7 | 6.9 | 7 | 7.2 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.4 | 6.7 | 6.9 | 7 | 7.2 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 74 | 100 | 109 | 129 | 150 | 171 | 245 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.4 | 7.1 | 10.8 | 19.9 | 24.4 | 25.9 | 27.4 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 6 | 10 | 60.6 | 4.4 | 8.1 | 11 | 15 | 27.8 | 54.5 | 210 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 175.3 | 1 | 6.2 | |

**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 significance

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

**Location:** S YADKIN RIV AT US 601 NR COOLEEMEE
**Station #:** Q3970000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.77838 **Longitude:** -80.50673 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-108-(19.5)

**Time period:** 01/22/2007 to 12/05/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.6 | 6.2 | 6.6 | 7.8 | 9.4 | 10.7 | 11.6 |
| | 85 | 0 | <5 | 0 | 0 | | 5.6 | 6.2 | 6.6 | 7.8 | 9.4 | 10.7 | 11.6 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.7 | 7 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.7 | 7 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 94 | 109 | 114 | 122 | 135 | 154 | 186 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.7 | 8 | 12.1 | 20.7 | 25.3 | 27.1 | 28.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 9 | 15 | 85.8 | 7.7 | 11 | 15 | 25 | 41.8 | 108.5 | 220 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 8 | N/A | | | | 0.01 | 0.01 | 0.03 | 0.07 | 0.1 | 0.13 | 0.49 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.57 | 0.69 | 0.8 | 0.88 | 0.99 | 1.09 | 1.24 |
| TKN as N | 60 | 8 | N/A | | | | 0.2 | 0.2 | 0.24 | 0.41 | 0.64 | 1.15 | 1.71 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.02 | 0.04 | 0.06 | 0.1 | 0.14 | 0.23 | 0.52 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 111.2 | 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 significance

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

**Location:** SECOND CRK AT SR 1526 NR SALISBURY
**Station #:** Q4030000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.69702 **Longitude:** -80.61172 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-108-21

**Time period:** 01/22/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.4 | 5.9 | 6.4 | 7.4 | 9.2 | 10.6 | 11.4 |
| | 85 | 0 | <5 | 0 | 0 | | 5.4 | 5.9 | 6.4 | 7.4 | 9.2 | 10.6 | 11.4 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.4 | 6.7 | 6.8 | 6.9 | 7 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.4 | 6.7 | 6.8 | 6.9 | 7 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 117 | 128 | 143 | 165 | 194 | 218 | 251 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.9 | 7.8 | 11.2 | 20.4 | 24.5 | 26.6 | 27.8 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 8 | 13.3 | 75.2 | 5 | 6.5 | 10 | 13 | 25 | 97.5 | 750 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 289.4 | 2 | 12.5 | |

**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 significance

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

**Location:** SECOND CRK AT US 601 NR SALISBURY
**Station #:** Q4165000 **Hydrologic Unit Code:** 3040102
**Latitude:** 35.76247 **Longitude:** -80.51075 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-108-21

**Time period:** 01/22/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.5 | 6.3 | 6.5 | 7.7 | 9.2 | 10.6 | 11.5 |
| | 85 | 0 | <5 | 0 | 0 | | 5.5 | 6.3 | 6.5 | 7.7 | 9.2 | 10.6 | 11.5 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 98 | 115 | 124 | 136 | 154 | 173 | 195 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.1 | 7.8 | 11.5 | 20.3 | 24.9 | 26.7 | 28.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 9 | 15 | 85.8 | 4.1 | 7.9 | 9.5 | 14 | 28 | 110 | 750 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 137.7 | 1 | 6.2 | |

**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 significance

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

**Location:** GRANTS CRK AT SR 1915 NR SALISBURY
**Station #:** Q4540000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.70718 **Longitude:** -80.43608 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-110

**Time period:** 01/23/2007 to 12/06/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.4 | 6.3 | 6.6 | 7.5 | 8.9 | 10.5 | 12.8 |
| | 85 | 0 | <5 | 0 | 0 | | 5.4 | 6.3 | 6.6 | 7.5 | 8.9 | 10.5 | 12.8 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 105 | 126 | 138 | 156 | 173 | 199 | 225 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.2 | 6.9 | 11.8 | 20 | 24.2 | 25.9 | 28.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 1 | 1.7 | | 2.9 | 5.5 | 7.5 | 12 | 17 | 36.8 | 120 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 119.6 | 1 | 6.2 | |

**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 significance

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

**Location:** YADKIN RIV AT NC 150 NR SPENCER
**Station #:** Q4660000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.72303 **Longitude:** -80.39050 **Stream class:** WS-V
**Agency:** YPDRBA **NC stream index:** 12-(108.5)

**Time period:** 01/23/2007 to 12/06/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 77 | 0 | <4 | 0 | 0 | | 5.2 | 6.1 | 6.4 | 7.4 | 8.9 | 10.5 | 13.5 |
| | 77 | 0 | <5 | 0 | 0 | | 5.2 | 6.1 | 6.4 | 7.4 | 8.9 | 10.5 | 13.5 |
| pH (SU) | 77 | 0 | <6 | 0 | 0 | | 6.4 | 6.7 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 |
| | 77 | 0 | >9 | 0 | 0 | | 6.4 | 6.7 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 77 | 0 | N/A | | | | 94 | 131 | 142 | 156 | 174 | 194 | 294 |
| Water Temperature (°C) | 77 | 0 | >32 | 0 | 0 | | 3.6 | 5.9 | 11.9 | 19.7 | 24.6 | 26.4 | 27.5 |
| **Other** | | | | | | | | | | | | | |
| Chlorophyll a (ug/L) | 16 | 0 | >40 | 4 | 25 | 93.2 | 2 | 7 | 13 | 18 | 42 | 66 | 79 |
| Turbidity (NTU) | 55 | 0 | >50 | 8 | 14.5 | 82.0 | 6.2 | 10.5 | 14 | 23 | 34 | 64 | 95 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 55 | 6 | N/A | | | | 0.01 | 0.01 | 0.04 | 0.07 | 0.1 | 0.15 | 1.27 |
| NO2 + NO3 as N | 55 | 0 | >10 | 0 | 0 | | 0.12 | 0.27 | 0.39 | 0.54 | 0.9 | 1.29 | 1.92 |
| TKN as N | 55 | 4 | N/A | | | | 0.2 | 0.31 | 0.57 | 0.71 | 0.89 | 1.09 | 2.26 |
| Total Phosphorus | 53 | 0 | N/A | | | | 0.02 | 0.06 | 0.09 | 0.12 | 0.19 | 0.25 | 0.64 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 95.8 | 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 significance

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

**Location:** SWEARING CRK AT SR 1272 JERSEY CHURCH RD NR LINWOOD
**Station #:** Q5135000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.72911 **Longitude:** -80.30566 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-113

**Time period:** 01/23/2007 to 12/06/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 4.2 | 5.2 | 5.8 | 6.7 | 8.3 | 10 | 12.8 |
| | 85 | 0 | <5 | 4 | 4.7 | | 4.2 | 5.2 | 5.8 | 6.7 | 8.3 | 10 | 12.8 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.3 | 6.5 | 6.6 | 6.7 | 6.9 | 7.1 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.3 | 6.5 | 6.6 | 6.7 | 6.9 | 7.1 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 73 | 144 | 165 | 191 | 244 | 315 | 410 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.1 | 7 | 11.8 | 19.8 | 24.3 | 26.3 | 27.6 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 3 | 5 | | 3.6 | 7.8 | 10 | 16 | 24.8 | 39.7 | 600 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 144.9 | 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 significance

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

**Location:** TOWN CRK AT SR 1915 ANDREWS ST AT SPENCER
**Station #:** Q5210000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.67981 **Longitude:** -80.41552 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-115-3

**Time period:** 01/23/2007 to 12/06/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 84 | 0 | <4 | 0 | 0 | | 5.3 | 6.2 | 6.4 | 7.4 | 8.5 | 10.5 | 12.7 |
| | 84 | 0 | <5 | 0 | 0 | | 5.3 | 6.2 | 6.4 | 7.4 | 8.5 | 10.5 | 12.7 |
| pH (SU) | 84 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| | 84 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 84 | 0 | N/A | | | | 81 | 136 | 155 | 178 | 203 | 236 | 282 |
| Water Temperature (°C) | 84 | 0 | >32 | 0 | 0 | | 3.4 | 8 | 12.3 | 20.4 | 24.6 | 26.6 | 28.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 59 | 0 | >50 | 4 | 6.8 | | 1.6 | 3.2 | 5.2 | 11 | 24 | 45 | 210 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 17 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.05 | 0.08 | 0.13 | 0.96 |
| NO2 + NO3 as N | 59 | 3 | N/A | | | | 0.01 | 0.03 | 0.19 | 0.4 | 0.58 | 0.79 | 1.1 |
| TKN as N | 59 | 6 | N/A | | | | 0.2 | 0.2 | 0.33 | 0.53 | 0.75 | 1.14 | 2.62 |
| Total Phosphorus | 57 | 2 | N/A | | | | 0.02 | 0.03 | 0.05 | 0.08 | 0.13 | 0.17 | 0.59 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 149.9 | 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 significance

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

**Location:** RICH FORK CRK AT SR 1757 CHESTNUT ST NR HIGH POINT
**Station #:** Q5745000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.96510 **Longitude:** -80.07869 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-119-7

**Time period:** 11/17/2009 to 12/05/2011

| | # results | # ND | Results not meeting EL EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 36 | 0 | <4 | 0 | 0 | | 6.2 | 6.6 | 7.3 | 7.8 | 9.4 | 10.4 | 11.9 |
| | 36 | 0 | <5 | 0 | 0 | | 6.2 | 6.6 | 7.3 | 7.8 | 9.4 | 10.4 | 11.9 |
| pH (SU) | 36 | 0 | <6 | 0 | 0 | | 6.5 | 6.7 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 36 | 0 | >9 | 0 | 0 | | 6.5 | 6.7 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 36 | 0 | N/A | | | | 88 | 115 | 121 | 144 | 174 | 207 | 241 |
| Water Temperature (°C) | 36 | 0 | >32 | 0 | 0 | | 3.6 | 6 | 10.2 | 19.2 | 23.6 | 25 | 26.2 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 26 | 0 | >50 | 2 | 7.7 | | 4.1 | 4.5 | 5.3 | 9.4 | 13.5 | 45.3 | 190 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 26 | 0 | N/A | | | | 0.02 | 0.03 | 0.05 | 0.08 | 0.12 | 0.25 | 0.42 |
| NO2 + NO3 as N | 26 | 0 | N/A | | | | 0.06 | 0.07 | 0.17 | 0.38 | 1.12 | 1.71 | 2.36 |
| TKN as N | 26 | 1 | N/A | | | | 0.2 | 0.22 | 0.32 | 0.54 | 0.85 | 1.47 | 2.43 |
| Total Phosphorus | 24 | 0 | N/A | | | | 0.02 | 0.02 | 0.06 | 0.09 | 0.14 | 0.22 | 0.28 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 104.9 | 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 significance

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

**Location:** RICH FORK CRK AT SR 1755 NR HIGH POINT
**Station #:** Q5750000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.94891 **Longitude:** -80.10170 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-119-7

**Time period:** 01/23/2007 to 10/20/2009

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 43 | 0 | <4 | 0 | 0 | | 5.6 | 6.1 | 6.5 | 7.7 | 9.5 | 10.6 | 12.5 |
| | 43 | 0 | <5 | 0 | 0 | | 5.6 | 6.1 | 6.5 | 7.7 | 9.5 | 10.6 | 12.5 |
| pH (SU) | 43 | 0 | <6 | 0 | 0 | | 6.5 | 6.7 | 6.8 | 6.9 | 7.1 | 7.3 | 7.3 |
| | 43 | 0 | >9 | 0 | 0 | | 6.5 | 6.7 | 6.8 | 6.9 | 7.1 | 7.3 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 43 | 0 | N/A | | | | 98 | 124 | 148 | 186 | 210 | 244 | 394 |
| Water Temperature (°C) | 43 | 0 | >32 | 0 | 0 | | 3.7 | 6.4 | 8.8 | 16.6 | 22.1 | 22.9 | 24.2 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 26 | 0 | >50 | 3 | 11.5 | 51.1 | 3.6 | 4.9 | 6.2 | 10.8 | 31.8 | 74.5 | 220 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 26 | 9 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.04 | 0.08 | 0.15 | 0.22 |
| NO2 + NO3 as N | 26 | 1 | N/A | | | | 0.01 | 0.02 | 0.06 | 0.14 | 0.21 | 0.35 | 5.44 |
| TKN as N | 26 | 7 | N/A | | | | 0.2 | 0.2 | 0.2 | 0.32 | 0.62 | 1.05 | 1.87 |
| Total Phosphorus | 26 | 2 | N/A | | | | 0.02 | 0.05 | 0.07 | 0.08 | 0.11 | 0.25 | 0.54 |

**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 significance

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

**Location:** RICH FORK CRK AT SR 1792 NR HIGH POINT
**Station #:** Q5785000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.89843 **Longitude:** -80.14540 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-119-7

**Time period:** 01/23/2007 to 12/05/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 1 | 1.2 | | 3.4 | 5 | 5.4 | 6.2 | 7.6 | 9.6 | 10.9 |
| | 85 | 0 | <5 | 8 | 9.4 | | 3.4 | 5 | 5.4 | 6.2 | 7.6 | 9.6 | 10.9 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.1 | 6.4 | 6.5 | 6.8 | 7 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.1 | 6.4 | 6.5 | 6.8 | 7 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 103 | 178 | 206 | 233 | 282 | 360 | 494 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.5 | 6.5 | 9.8 | 18.6 | 22.6 | 24 | 25.9 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 7 | 11.7 | 60.6 | 3.8 | 5.4 | 8.7 | 17.5 | 29 | 54.9 | 370 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 6 | N/A | | | | 0.01 | 0.01 | 0.06 | 0.1 | 0.17 | 0.29 | 0.82 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.54 | 0.85 | 1.53 | 2.98 | 4.79 | 6.06 | 8.32 |
| TKN as N | 60 | 3 | N/A | | | | 0.2 | 0.53 | 0.65 | 0.94 | 1.28 | 1.82 | 3.08 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.05 | 0.08 | 0.12 | 0.2 | 0.3 | 0.51 | 0.81 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 240.3 | 2 | 12.5 | |

**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 significance

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

**Location:** RICH FORK CRK AT SR 2123 NR HIGH POINT
**Station #:** Q5790000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.85433 **Longitude:** -80.18215 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-119-7

**Time period:** 01/23/2007 to 12/05/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 74 | 0 | <4 | 0 | 0 | | 4.1 | 5.8 | 6.3 | 7 | 8.4 | 10.1 | 10.8 |
| | 74 | 0 | <5 | 1 | 1.4 | | 4.1 | 5.8 | 6.3 | 7 | 8.4 | 10.1 | 10.8 |
| pH (SU) | 74 | 0 | <6 | 0 | 0 | | 6.3 | 6.5 | 6.8 | 7 | 7.1 | 7.2 | 7.4 |
| | 74 | 0 | >9 | 0 | 0 | | 6.3 | 6.5 | 6.8 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 74 | 0 | N/A | | | | 94 | 149 | 171 | 196 | 233 | 279 | 382 |
| Water Temperature (°C) | 74 | 0 | >32 | 0 | 0 | | 3.8 | 7.6 | 10.2 | 18.8 | 22.9 | 24.5 | 26.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 52 | 0 | >50 | 6 | 11.5 | 57.9 | 4.5 | 5.8 | 8.6 | 12.5 | 24.5 | 62 | 280 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 52 | 6 | N/A | | | | 0.01 | 0.01 | 0.05 | 0.1 | 0.13 | 0.19 | 0.84 |
| NO2 + NO3 as N | 52 | 0 | N/A | | | | 0.48 | 0.63 | 0.92 | 1.5 | 2.35 | 4.24 | 5.53 |
| TKN as N | 52 | 3 | N/A | | | | 0.2 | 0.38 | 0.57 | 0.7 | 0.97 | 1.39 | 5.08 |
| Total Phosphorus | 50 | 0 | N/A | | | | 0.03 | 0.07 | 0.1 | 0.15 | 0.19 | 0.25 | 0.53 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 147.1 | 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 significance

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

**Location:** HAMBY CRK AT SR 2775 OLD EMANUEL CHURCH RD NR THOMASVILLE
**Station #:** Q5860000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.85009 **Longitude:** -80.10637 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-119-7-4

**Time period:** 01/23/2007 to 12/05/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.7 | 6.7 | 7 | 7.8 | 9.8 | 10.8 | 12.5 |
| | 85 | 0 | <5 | 0 | 0 | | 5.7 | 6.7 | 7 | 7.8 | 9.8 | 10.8 | 12.5 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 86 | 104 | 120 | 140 | 168 | 198 | 359 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 4.1 | 6.2 | 10.1 | 18.8 | 23.1 | 24 | 25.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 2 | 3.3 | | 1.7 | 4.1 | 5.2 | 10.5 | 21.5 | 35.9 | 320 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 14 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.06 | 0.09 | 0.24 | 0.61 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.21 | 0.33 | 0.43 | 0.59 | 0.95 | 2.07 | 4.61 |
| TKN as N | 60 | 6 | N/A | | | | 0.2 | 0.2 | 0.3 | 0.52 | 0.68 | 1.02 | 3.11 |
| Total Phosphorus | 58 | 3 | N/A | | | | 0.02 | 0.04 | 0.05 | 0.08 | 0.12 | 0.39 | 0.85 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 109.8 | 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 significance

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

**Location:** ABBOTTS CRK AT I 85 NR LEXINGTON
**Station #:** Q5940000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.78730 **Longitude:** -80.23565 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 12-119-6

**Time period:** 01/23/2007 to 12/06/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.7 | 6.2 | 6.5 | 7.4 | 9 | 10.7 | 11.9 |
| | 85 | 0 | <5 | 0 | 0 | | 5.7 | 6.2 | 6.5 | 7.4 | 9 | 10.7 | 11.9 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.4 | 6.7 | 6.9 | 7.1 | 7.2 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.4 | 6.7 | 6.9 | 7.1 | 7.2 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 97 | 124 | 144 | 164 | 193 | 213 | 352 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.2 | 5.8 | 10 | 20.2 | 23.9 | 25.1 | 26.6 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 6 | 10 | 43.7 | 4.5 | 8.2 | 12 | 18.5 | 28 | 58.5 | 90 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 5 | N/A | | | | 0.01 | 0.01 | 0.06 | 0.08 | 0.12 | 0.2 | 0.67 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.22 | 0.37 | 0.55 | 0.86 | 1.8 | 3 | 3.44 |
| TKN as N | 60 | 3 | N/A | | | | 0.2 | 0.49 | 0.58 | 0.74 | 0.91 | 1.16 | 2.63 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.02 | 0.06 | 0.09 | 0.16 | 0.27 | 0.61 | 1.08 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 123.3 | 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 significance

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

**Location:** ABBOTTS CRK AT NC 47 NR COTTON GROVE
**Station #:** Q5970000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.74795 **Longitude:** -80.24140 **Stream class:** WS-V B
**Agency:** YPDRBA **NC stream index:** 12-118.5

**Time period:** 01/23/2007 to 12/06/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 84 | 0 | <4 | 0 | 0 | | 4.7 | 5.2 | 5.7 | 6.6 | 8.4 | 10.2 | 10.8 |
| | 84 | 0 | <5 | 3 | 3.6 | | 4.7 | 5.2 | 5.7 | 6.6 | 8.4 | 10.2 | 10.8 |
| pH (SU) | 84 | 0 | <6 | 0 | 0 | | 6.3 | 6.5 | 6.8 | 7 | 7.3 | 7.4 | 7.5 |
| | 84 | 0 | >9 | 0 | 0 | | 6.3 | 6.5 | 6.8 | 7 | 7.3 | 7.4 | 7.5 |
| Spec. conductance (umhos/cm at 25°C) | 75 | 0 | N/A | | | | 112 | 119 | 134 | 182 | 227 | 299 | 394 |
| Water Temperature (°C) | 84 | 0 | >32 | 0 | 0 | | 3 | 5.9 | 11.9 | 20.5 | 25.6 | 27.5 | 30.8 |
| **Other** | | | | | | | | | | | | | |
| Chlorophyll a (ug/L) | 21 | 0 | >40 | 9 | 42.9 | > 99.9 | 8 | 8 | 17 | 31 | 69 | 78 | 118 |
| Turbidity (NTU) | 59 | 0 | >50 | 5 | 8.5 | | 4.9 | 11 | 15 | 23 | 29 | 50 | 120 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 5 | N/A | | | | 0.01 | 0.02 | 0.05 | 0.08 | 0.15 | 0.26 | 0.34 |
| NO2 + NO3 as N | 59 | 3 | >10 | 0 | 0 | | 0.01 | 0.08 | 0.3 | 0.52 | 0.98 | 1.48 | 3.13 |
| TKN as N | 59 | 2 | N/A | | | | 0.2 | 0.49 | 0.69 | 0.95 | 1.2 | 1.49 | 2.5 |
| Total Phosphorus | 57 | 0 | N/A | | | | 0.05 | 0.07 | 0.11 | 0.14 | 0.18 | 0.24 | 0.65 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 112.8 | 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 significance

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

**Location:** YADKIN RIV AT SR 1002 AT HIGH ROCK
**Station #:** Q6120000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.59680 **Longitude:** -80.23128 **Stream class:** WS-IV B CA
**Agency:** YPDRBA **NC stream index:** 12-(124.5)

**Time period:** 01/25/2007 to 12/13/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 1 | 1.2 | | 3.8 | 5.9 | 6.2 | 7.1 | 8.8 | 10.4 | 12.5 |
| | 85 | 0 | <5 | 1 | 1.2 | | 3.8 | 5.9 | 6.2 | 7.1 | 8.8 | 10.4 | 12.5 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.7 | 6.8 | 7 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.7 | 6.8 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 96 | 119 | 142 | 163 | 190 | 211 | 248 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3.3 | 7.5 | 13.5 | 21.2 | 25.2 | 27.2 | 28.2 |
| **Other** | | | | | | | | | | | | | |
| Chlorophyll a (ug/L) | 22 | 0 | >40 | 5 | 22.7 | 93.8 | 6 | 9 | 16 | 23 | 36 | 52 | 94 |
| Turbidity (NTU) | 60 | 0 | >50 | 1 | 1.7 | | 2.4 | 4.8 | 6 | 9.6 | 14 | 32.9 | 95 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 10 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.07 | 0.1 | 0.17 | 0.5 |
| NO2 + NO3 as N | 60 | 5 | >10 | 0 | 0 | | 0.01 | 0.01 | 0.17 | 0.36 | 0.56 | 0.7 | 0.82 |
| TKN as N | 60 | 1 | N/A | | | | 0.2 | 0.39 | 0.47 | 0.69 | 0.97 | 1.16 | 3.47 |
| Total Phosphorus | 57 | 3 | N/A | | | | 0.02 | 0.03 | 0.05 | 0.07 | 0.12 | 0.16 | 0.55 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 138.1 | 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 significance

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

**Location:** LICK CRK AT SR 1002 NR HEALING SPRINGS
**Station #:** Q6140000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.61638 **Longitude:** -80.17543 **Stream class:** WS-IV
**Agency:** YPDRBA **NC stream index:** 12-126-(3)

**Time period:** 01/25/2007 to 12/13/2011

| | # results | # ND | Results not meeting EL EL | # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 4.7 | 5.4 | 5.8 | 6.4 | 7.6 | 10 | 11.5 |
| | 85 | 0 | <5 | 1 | 1.2 | | 4.7 | 5.4 | 5.8 | 6.4 | 7.6 | 10 | 11.5 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.2 | 6.5 | 6.6 | 6.7 | 6.9 | 7.1 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.2 | 6.5 | 6.6 | 6.7 | 6.9 | 7.1 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 143 | 168 | 188 | 208 | 237 | 275 | 488 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.4 | 6.8 | 12.4 | 20.6 | 24.6 | 26.3 | 27.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 3 | 5 | | 1.8 | 3.8 | 6 | 9.7 | 19.8 | 32.9 | 120 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 288.2 | 3 | 18.8 | |

**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 significance

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

**Location:** UWHARRIE RIV AT NC 49 NR FARMER
**Station #:** Q6705000 **Hydrologic Unit Code:** 3040103
**Latitude:** 35.64212 **Longitude:** -79.96502 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-2-1.5

**Time period:** 01/25/2007 to 12/13/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.2 | 6.4 | 6.6 | 7.5 | 8.9 | 10.7 | 12.4 |
| | 85 | 0 | <5 | 0 | 0 | | 6.2 | 6.4 | 6.6 | 7.5 | 8.9 | 10.7 | 12.4 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 90 | 108 | 116 | 126 | 142 | 162 | 240 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 3 | 7.2 | 12.8 | 21 | 25 | 27.1 | 28.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 1 | 1.7 | | 3.2 | 4.5 | 6.4 | 10.4 | 15 | 22.8 | 90 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 87.3 | 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 significance

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

**Location:** LITTLE MOUNTAIN CRK AT SR 1720 NR BADIN
**Station #:** Q6930000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.38122 **Longitude:** -80.11285 **Stream class:** WS-IV
**Agency:** YPDRBA **NC stream index:** 13-5-1-(2)

**Time period:** 01/17/2008 to 12/13/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 67 | 0 | <4 | 0 | 0 | | 5.7 | 6.3 | 6.5 | 7.4 | 9.1 | 10.5 | 12.2 |
| | 67 | 0 | <5 | 0 | 0 | | 5.7 | 6.3 | 6.5 | 7.4 | 9.1 | 10.5 | 12.2 |
| pH (SU) | 67 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 | 7.6 |
| | 67 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 | 7.6 |
| Spec. conductance (umhos/cm at 25°C) | 67 | 0 | N/A | | | | 97 | 125 | 145 | 160 | 178 | 195 | 271 |
| Water Temperature (°C) | 67 | 0 | >32 | 0 | 0 | | 2.2 | 6.1 | 12.6 | 19.8 | 24.1 | 26.2 | 26.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 46 | 0 | >50 | 2 | 4.3 | | 1 | 1.9 | 3 | 5.4 | 11 | 32.1 | 110 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 46 | 6 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.05 | 0.08 | 0.12 | 0.19 |
| NO2 + NO3 as N | 46 | 0 | >10 | 4 | 8.7 | | 0.52 | 0.76 | 1.09 | 1.84 | 3.44 | 7.2 | 14.12 |
| TKN as N | 46 | 3 | N/A | | | | 0.2 | 0.26 | 0.34 | 0.55 | 0.79 | 1.25 | 3.27 |
| Total Phosphorus | 43 | 2 | N/A | | | | 0.02 | 0.05 | 0.1 | 0.19 | 0.31 | 0.47 | 0.64 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 230.9 | 2 | 12.5 | |

**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 significance

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

**Location:** LITTLE MOUNTAIN CRK AT NC 1798 NR BADIN
**Station #:** Q6950000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.36928 **Longitude:** -80.11088 **Stream class:** WS-IV
**Agency:** YPDRBA **NC stream index:** 13-5-1-(2)

**Time period:** 01/25/2007 to 12/13/2007

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 17 | 0 | <4 | 0 | 0 | | 6.3 | 6.4 | 6.6 | 7.2 | 8.5 | 10.8 | 11.2 |
| | 17 | 0 | <5 | 0 | 0 | | 6.3 | 6.4 | 6.6 | 7.2 | 8.5 | 10.8 | 11.2 |
| pH (SU) | 17 | 0 | <6 | 0 | 0 | | 6.9 | 7 | 7 | 7.1 | 7.1 | 7.2 | 7.2 |
| | 17 | 0 | >9 | 0 | 0 | | 6.9 | 7 | 7 | 7.1 | 7.1 | 7.2 | 7.2 |
| Spec. conductance (umhos/cm at 25°C) | 17 | 0 | N/A | | | | 118 | 120 | 132 | 142 | 162 | 195 | 235 |
| Water Temperature (°C) | 17 | 0 | >32 | 0 | 0 | | 5.3 | 6 | 13.4 | 20.6 | 22.6 | 25.1 | 26.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 12 | 0 | >50 | 0 | 0 | | 1.2 | 1.2 | 2.2 | 3.4 | 7.3 | 20.7 | 24 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 12 | 4 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.04 | 0.07 | 0.19 | 0.23 |
| NO2 + NO3 as N | 12 | 0 | >10 | 0 | 0 | | 0.01 | 0.11 | 0.51 | 1.23 | 3.28 | 5.56 | 5.91 |
| TKN as N | 12 | 0 | N/A | | | | 0.3 | 0.31 | 0.44 | 0.53 | 0.7 | 1 | 1.1 |
| Total Phosphorus | 12 | 0 | N/A | | | | 0.04 | 0.04 | 0.07 | 0.12 | 0.18 | 1.43 | 1.87 |

**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 significance

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

**Location:** PEE DEE RIV AT BOAT RAMP AT MORROW MOUNTAIN STATE PARK
**Station #:** Q6960000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.37970 **Longitude:** -80.06130 **Stream class:** WS-IV&B CA
**Agency:** YPDRBA **NC stream index:** 13-(1)

**Time period:** 01/25/2007 to 12/13/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.1 | 6.6 | 6.8 | 7.8 | 9 | 10.7 | 12.3 |
| | 85 | 0 | <5 | 0 | 0 | | 6.1 | 6.6 | 6.8 | 7.8 | 9 | 10.7 | 12.3 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.8 | 7 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.8 | 7 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 76 | 104 | 113 | 127 | 140 | 156 | 206 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.4 | 6.6 | 12.8 | 20.2 | 24 | 25.9 | 27.3 |
| **Other** | | | | | | | | | | | | | |
| Chlorophyll a (ug/L) | 22 | 0 | >40 | 1 | 4.5 | | 3 | 5 | 9 | 16 | 21 | 37 | 41 |
| Turbidity (NTU) | 60 | 0 | >50 | 1 | 1.7 | | 2.1 | 3.1 | 4.4 | 7.3 | 12 | 23.9 | 65 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 11 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.06 | 0.08 | 0.12 | 0.27 |
| NO2 + NO3 as N | 60 | 3 | >10 | 0 | 0 | | 0.01 | 0.03 | 0.2 | 0.41 | 0.62 | 1.05 | 6.05 |
| TKN as N | 60 | 2 | N/A | | | | 0.2 | 0.28 | 0.38 | 0.56 | 0.87 | 1 | 3.25 |
| Total Phosphorus | 57 | 2 | N/A | | | | 0.02 | 0.03 | 0.05 | 0.07 | 0.12 | 0.24 | 1.49 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 72.1 | 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 significance

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

**Location:** PEE DEE RIV AT NC 24 NC 27 AND NC 73 NR ALBEMARLE
**Station #:** Q7030000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.30825 **Longitude:** -80.07972 **Stream class:** WS-IV&B CA
**Agency:** YPDRBA **NC stream index:** 13-(1)

**Time period:** 01/25/2007 to 12/13/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.4 | 6.6 | 6.8 | 7.7 | 9.6 | 10.5 | 12.4 |
| | 85 | 0 | <5 | 0 | 0 | | 6.4 | 6.6 | 6.8 | 7.7 | 9.6 | 10.5 | 12.4 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 84 | 106 | 116 | 127 | 140 | 163 | 192 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2.3 | 6.6 | 13 | 20 | 24.3 | 25.9 | 27.8 |
| **Other** | | | | | | | | | | | | | |
| Chlorophyll a (ug/L) | 22 | 0 | >40 | 0 | 0 | | 4 | 7 | 12 | 16 | 23 | 29 | 30 |
| Turbidity (NTU) | 60 | 0 | >50 | 0 | 0 | | 1.9 | 4.2 | 5.1 | 8 | 12 | 16.9 | 37 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 9 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.04 | 0.08 | 0.16 | 0.61 |
| NO2 + NO3 as N | 60 | 10 | >10 | 0 | 0 | | 0.01 | 0.01 | 0.04 | 0.21 | 0.37 | 0.43 | 0.62 |
| TKN as N | 60 | 1 | N/A | | | | 0.2 | 0.32 | 0.44 | 0.57 | 0.81 | 1.17 | 3.51 |
| Total Phosphorus | 57 | 3 | N/A | | | | 0.02 | 0.03 | 0.05 | 0.06 | 0.08 | 0.14 | 0.49 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 77.6 | 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 significance

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

**Location:** CLARKS CRK AT SR 1187 NR MOUNT GILEAD
**Station #:** Q7210000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.20438 **Longitude:** -80.05752 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-16

**Time period:** 01/25/2007 to 12/13/2011

| | # results | # ND | Results not meeting EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.7 | 6.3 | 6.6 | 7.5 | 9.1 | 10.8 | 13 |
| | 85 | 0 | <5 | 0 | 0 | | 5.7 | 6.3 | 6.6 | 7.5 | 9.1 | 10.8 | 13 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 71 | 118 | 132 | 152 | 170 | 191 | 261 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.5 | 5.9 | 12.6 | 19.1 | 23.8 | 24.9 | 27.4 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 59 | 0 | >50 | 3 | 5.1 | | 1.5 | 3.5 | 5.3 | 10 | 15 | 36 | 95 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 123.5 | 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 significance

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

**Location:** ROCKY RIV AT SR 2420 NR DAVIDSON
**Station #:** Q7330000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.47490 **Longitude:** -80.77948 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17

**Time period:** 01/24/2007 to 12/12/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 84 | 0 | <4 | 0 | 0 | | 5.9 | 6.3 | 6.7 | 7.6 | 9.8 | 11.2 | 13.8 |
| | 84 | 0 | <5 | 0 | 0 | | 5.9 | 6.3 | 6.7 | 7.6 | 9.8 | 11.2 | 13.8 |
| pH (SU) | 84 | 0 | <6 | 0 | 0 | | 6.6 | 6.7 | 6.8 | 7 | 7.1 | 7.3 | 7.4 |
| | 84 | 0 | >9 | 0 | 0 | | 6.6 | 6.7 | 6.8 | 7 | 7.1 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 84 | 0 | N/A | | | | 102 | 139 | 161 | 183 | 232 | 386 | 463 |
| Water Temperature (°C) | 84 | 0 | >32 | 0 | 0 | | 1 | 5.2 | 9.1 | 18.7 | 22.6 | 25.2 | 26.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 59 | 0 | >50 | 7 | 11.9 | 62.3 | 2.2 | 4.4 | 6.4 | 10 | 21 | 95 | 730 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 59 | 14 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.05 | 0.1 | 0.19 | 0.73 |
| NO2 + NO3 as N | 59 | 4 | N/A | | | | 0.01 | 0.02 | 0.11 | 0.28 | 0.39 | 10.56 | 19.68 |
| TKN as N | 59 | 15 | N/A | | | | 0.2 | 0.2 | 0.2 | 0.45 | 0.77 | 1.45 | 3.11 |
| Total Phosphorus | 57 | 6 | N/A | | | | 0.02 | 0.02 | 0.04 | 0.08 | 0.15 | 1.01 | 1.74 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 199.5 | 1 | 6.2 | |

**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 significance

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

**Location:** ROCKY RIV AT US 29 NR HARRISBURG
**Station #:** Q7450000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.35897 **Longitude:** -80.67506 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17

**Time period:** 01/24/2007 to 12/12/2011

| | # results | # ND | Results not meeting EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.1 | 6.4 | 6.8 | 7.8 | 9.8 | 11.3 | 13.4 |
| | 85 | 0 | <5 | 0 | 0 | | 6.1 | 6.4 | 6.8 | 7.8 | 9.8 | 11.3 | 13.4 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.7 | 6.8 | 6.9 | 7.1 | 7.2 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.7 | 6.8 | 6.9 | 7.1 | 7.2 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 84 | 120 | 132 | 152 | 182 | 200 | 266 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.3 | 5.1 | 9.1 | 19.7 | 23.2 | 25.3 | 27.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 7 | 11.7 | 60.6 | 3.4 | 4.2 | 6.2 | 9.5 | 16.8 | 60 | 290 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 129.2 | 1 | 6.2 | |

**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 significance

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

**Location:** MALLARD CRK AT PAVILLION RD NR HARRISBURG
**Station #:** Q7550000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.33232 **Longitude:** -80.71573 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-5

**Time period:** 01/24/2007 to 12/12/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6 | 6.3 | 6.6 | 7.3 | 9.6 | 11.1 | 13.7 |
| | 85 | 0 | <5 | 0 | 0 | | 6 | 6.3 | 6.6 | 7.3 | 9.6 | 11.1 | 13.7 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.3 | 6.8 | 6.9 | 7 | 7.1 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.3 | 6.8 | 6.9 | 7 | 7.1 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 91 | 144 | 160 | 181 | 204 | 230 | 304 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.6 | 5.6 | 9.8 | 20.3 | 23.8 | 25.5 | 27.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 4 | 6.7 | | 2.5 | 3.6 | 5.2 | 8 | 11.8 | 31.1 | 130 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 11 | N/A | | | | 0.01 | 0.01 | 0.03 | 0.06 | 0.13 | 0.32 | 1.25 |
| NO2 + NO3 as N | 60 | 3 | N/A | | | | 0.01 | 0.03 | 0.1 | 0.26 | 0.48 | 0.81 | 1.36 |
| TKN as N | 60 | 9 | N/A | | | | 0.2 | 0.2 | 0.26 | 0.42 | 0.73 | 1.22 | 3.65 |
| Total Phosphorus | 58 | 5 | N/A | | | | 0.02 | 0.02 | 0.04 | 0.06 | 0.1 | 0.15 | 0.8 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 169.5 | 1 | 6.2 | |

**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 significance

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

**Location:** MALLARD CRK AT SR 1300 NR HARRISBURG
**Station #:** Q7570000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.33378 **Longitude:** -80.66817 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-5

**Time period:** 01/24/2007 to 12/12/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.1 | 6.4 | 6.6 | 7.5 | 9.8 | 11.1 | 13.6 |
| | 85 | 0 | <5 | 0 | 0 | | 6.1 | 6.4 | 6.6 | 7.5 | 9.8 | 11.1 | 13.6 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.9 | 7 | 7.1 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.9 | 7 | 7.1 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 105 | 148 | 162 | 173 | 197 | 216 | 269 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.7 | 5.8 | 9.8 | 20.3 | 23.7 | 25.6 | 27 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 3 | 5 | | 2 | 3.8 | 5.6 | 8.2 | 15.8 | 36.5 | 180 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 13 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.06 | 0.11 | 0.16 | 1.56 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.04 | 0.13 | 0.24 | 0.37 | 0.88 | 6.91 | 14.52 |
| TKN as N | 60 | 9 | N/A | | | | 0.2 | 0.2 | 0.3 | 0.55 | 1.01 | 1.34 | 3.48 |
| Total Phosphorus | 58 | 1 | N/A | | | | 0.02 | 0.04 | 0.06 | 0.1 | 0.27 | 1.13 | 2.98 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 138.9 | 1 | 6.2 | |

**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 significance

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

**Location:** ROCKY RIV AT SR 1304 NR HARRISBURG
**Station #:** Q7600000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.33445 **Longitude:** -80.64435 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17

**Time period:** 01/24/2007 to 12/12/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.2 | 6.5 | 6.7 | 7.5 | 9.7 | 11.3 | 13.8 |
| | 85 | 0 | <5 | 0 | 0 | | 6.2 | 6.5 | 6.7 | 7.5 | 9.7 | 11.3 | 13.8 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 115 | 148 | 160 | 178 | 194 | 209 | 286 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.9 | 5.9 | 9.6 | 20.3 | 24 | 25.9 | 27.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 9 | 15 | 85.8 | 2.2 | 6.1 | 8 | 11 | 24.8 | 75 | 340 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 9 | N/A | | | | 0.01 | 0.01 | 0.03 | 0.06 | 0.11 | 0.21 | 0.4 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.67 | 1.99 | 3.25 | 4.56 | 6.9 | 9.22 | 12.12 |
| TKN as N | 60 | 1 | N/A | | | | 0.2 | 0.41 | 0.57 | 0.8 | 1.02 | 1.35 | 7.38 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.06 | 0.3 | 0.5 | 0.77 | 1.18 | 1.64 | 2.08 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 131.9 | 1 | 6.2 | |

**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 significance

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

**Location:** CODDLE CRK AT SR 1304 ROBERTA RD NR ROBERTA MILL
**Station #:** Q7700000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.35919 **Longitude:** -80.63469 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-6-(5.5)

**Time period:** 01/24/2007 to 12/12/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.4 | 6.6 | 7 | 7.8 | 9.8 | 11.4 | 13.1 |
| | 85 | 0 | <5 | 0 | 0 | | 6.4 | 6.6 | 7 | 7.8 | 9.8 | 11.4 | 13.1 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.7 | 6.9 | 7.1 | 7.1 | 7.2 | 7.3 | 7.5 |
| | 85 | 0 | >9 | 0 | 0 | | 6.7 | 6.9 | 7.1 | 7.1 | 7.2 | 7.3 | 7.5 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 96 | 122 | 132 | 152 | 170 | 189 | 231 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.1 | 5.6 | 9.4 | 19.9 | 23 | 25.2 | 26 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 7 | 11.7 | 60.6 | 2.5 | 4.7 | 6.1 | 9.8 | 23 | 59.5 | 210 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 116.9 | 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 significance

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

**Location:** ROCKY RIV AT SR 1132 NR HARRISBURG
**Station #:** Q7780000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.32443 **Longitude:** -80.56033 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17

**Time period:** 01/24/2007 to 12/12/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.3 | 6.5 | 6.9 | 7.5 | 9.6 | 11.3 | 12.6 |
| | 85 | 0 | <5 | 0 | 0 | | 6.3 | 6.5 | 6.9 | 7.5 | 9.6 | 11.3 | 12.6 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 102 | 125 | 134 | 149 | 172 | 188 | 239 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.9 | 6.6 | 10.1 | 20.7 | 24.2 | 26.1 | 27 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 6 | 10 | 43.7 | 2.5 | 4 | 5.2 | 8.6 | 18.5 | 75.6 | 280 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 11 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.05 | 0.09 | 0.15 | 0.47 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.43 | 0.73 | 1.6 | 2.5 | 3.52 | 6.08 | 11.52 |
| TKN as N | 60 | 8 | N/A | | | | 0.2 | 0.2 | 0.34 | 0.63 | 0.92 | 1.23 | 3.53 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.05 | 0.13 | 0.2 | 0.3 | 0.52 | 0.85 | 1.51 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 106.1 | 1 | 6.2 | |

**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 significance

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

**Location:** COLD WATER CRK AT SR 1132 MIAMI CHURCH RD NR CONCORD
**Station #:** Q8200000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.36242 **Longitude:** -80.53033 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-9-4-(1.5)

**Time period:** 01/24/2007 to 12/12/2011

| | # results | # ND | Results not meeting EL EL | # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 75 | 0 | <4 | 0 | 0 | | 5.3 | 5.8 | 6.3 | 7.1 | 9.2 | 10.8 | 12 |
| | 75 | 0 | <5 | 0 | 0 | | 5.3 | 5.8 | 6.3 | 7.1 | 9.2 | 10.8 | 12 |
| pH (SU) | 75 | 0 | <6 | 0 | 0 | | 6.5 | 6.6 | 6.7 | 6.8 | 7 | 7.1 | 7.3 |
| | 75 | 0 | >9 | 0 | 0 | | 6.5 | 6.6 | 6.7 | 6.8 | 7 | 7.1 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 75 | 0 | N/A | | | | 127 | 149 | 165 | 195 | 227 | 259 | 323 |
| Water Temperature (°C) | 75 | 0 | >32 | 0 | 0 | | 1.6 | 5.5 | 9.5 | 19 | 23.2 | 25.2 | 26.6 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 54 | 0 | >50 | 4 | 7.4 | | 2.9 | 4.1 | 5.8 | 8.8 | 17 | 50 | 130 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 13 | 255.9 | 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 significance

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

**Location:** ROCKY RIV AT US 601 NR CONCORD
**Station #:** Q8210000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.32445 **Longitude:** -80.51537 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17

**Time period:** 01/24/2007 to 12/12/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.3 | 6.5 | 6.8 | 7.7 | 9.8 | 11.2 | 13 |
| | 85 | 0 | <5 | 0 | 0 | | 6.3 | 6.5 | 6.8 | 7.7 | 9.8 | 11.2 | 13 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.8 | 7 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.8 | 7 | 7 | 7.1 | 7.2 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 90 | 112 | 121 | 130 | 149 | 173 | 232 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2 | 6.9 | 10.3 | 21 | 24.3 | 26.2 | 27.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 7 | 11.7 | 60.6 | 2.7 | 4.8 | 6.7 | 10 | 27.2 | 105 | 390 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 13 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.06 | 0.11 | 0.16 | 0.49 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.61 | 1.12 | 1.91 | 3.66 | 5.71 | 8.12 | 10.74 |
| TKN as N | 60 | 2 | N/A | | | | 0.2 | 0.37 | 0.48 | 0.62 | 0.88 | 1.24 | 3.46 |
| Total Phosphorus | 58 | 0 | N/A | | | | 0.11 | 0.17 | 0.3 | 0.42 | 0.68 | 1 | 1.83 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 98.8 | 1 | 6.2 | |

**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 significance

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

**Location:** CLEAR CRK AT SR 1118 BEN BLACK RD NR BRIEF
**Station #:** Q8341000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.21628 **Longitude:** -80.54555 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-17

**Time period:** 01/24/2007 to 12/14/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.6 | 6.2 | 6.5 | 7.4 | 8.9 | 10.6 | 15.2 |
| | 85 | 0 | <5 | 0 | 0 | | 5.6 | 6.2 | 6.5 | 7.4 | 8.9 | 10.6 | 15.2 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.7 | 6.8 | 7 | 7.1 | 7.2 | 7.3 | 8.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.7 | 6.8 | 7 | 7.1 | 7.2 | 7.3 | 8.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 92 | 119 | 130 | 146 | 162 | 178 | 206 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 0.2 | 7.3 | 11.8 | 21 | 24.9 | 26 | 27.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 4 | 6.7 | | 2.7 | 4.9 | 7.2 | 13 | 22 | 36.9 | 150 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 122.4 | 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 significance

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

**Location:** CLEAR CRK AT US 601 NR BRIEF
**Station #:** Q8342000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.19465 **Longitude:** -80.52928 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-17

**Time period:** 01/24/2007 to 12/14/2011

| | # | # | | Results not meeting EL | | | | Percentiles | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.3 | 6.6 | 7 | 8 | 9.6 | 11.1 | 14.5 |
| | 85 | 0 | <5 | 0 | 0 | | 6.3 | 6.6 | 7 | 8 | 9.6 | 11.1 | 14.5 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.8 | 7 | 7.2 | 7.2 | 7.3 | 7.4 | 7.8 |
| | 85 | 0 | >9 | 0 | 0 | | 6.8 | 7 | 7.2 | 7.2 | 7.3 | 7.4 | 7.8 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 84 | 92 | 94 | 108 | 118 | 135 | 181 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 0.1 | 6.9 | 11.6 | 21.1 | 24.3 | 25.7 | 27.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 5 | 8.3 | | 2.3 | 3.9 | 7.2 | 14 | 21.8 | 44.7 | 230 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 75.4 | 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 significance

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

**Location:** ROCKY RIV AT SR 1114 NR MIDLAND
**Station #:** Q8355000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.22117 **Longitude:** -80.48712 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17

**Time period:** 01/24/2007 to 12/14/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 6.1 | 6.5 | 6.8 | 7.7 | 9.1 | 10.8 | 13.4 |
| | 85 | 0 | <5 | 0 | 0 | | 6.1 | 6.5 | 6.8 | 7.7 | 9.1 | 10.8 | 13.4 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.7 | 7 | 7.1 | 7.2 | 7.3 | 7.3 | 7.6 |
| | 85 | 0 | >9 | 0 | 0 | | 6.7 | 7 | 7.1 | 7.2 | 7.3 | 7.3 | 7.6 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 92 | 106 | 114 | 126 | 142 | 167 | 279 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.8 | 7.1 | 12.2 | 21.4 | 25.2 | 26.2 | 27.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 6 | 10 | 43.7 | 2.9 | 4 | 7.7 | 12.5 | 24.8 | 54.5 | 400 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 9 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.06 | 0.1 | 0.22 | 1.21 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.66 | 1.58 | 2.67 | 4.52 | 7.14 | 9.52 | 13.84 |
| TKN as N | 60 | 1 | N/A | | | | 0.2 | 0.31 | 0.65 | 0.84 | 1 | 1.79 | 3.83 |
| Total Phosphorus | 57 | 0 | N/A | | | | 0.13 | 0.22 | 0.38 | 0.64 | 0.96 | 1.45 | 2.17 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 95.9 | 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 significance

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

**Location:** GOOSE CRK IN HUNLEY CREEK SUBDIVISION
**Station #:** Q8359500 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.13855 **Longitude:** -80.63363 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-18

**Time period:** 01/24/2007 to 12/13/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.6 | 6 | 6.4 | 7.3 | 8.5 | 10.1 | 12.8 |
| | 85 | 0 | <5 | 0 | 0 | | 5.6 | 6 | 6.4 | 7.3 | 8.5 | 10.1 | 12.8 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.3 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 6.9 | 7 | 7.1 | 7.3 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 114 | 129 | 147 | 169 | 190 | 209 | 244 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 0.4 | 7.6 | 12.6 | 21.1 | 25 | 26.5 | 28.1 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 4 | 6.7 | | 2.5 | 3.9 | 5.9 | 9.3 | 17.8 | 33 | 110 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 41 | 8 | N/A | | | | 0.01 | 0.01 | 0.02 | 0.05 | 0.1 | 0.13 | 0.2 |
| NO2 + NO3 as N | 41 | 0 | N/A | | | | 0.07 | 0.26 | 0.34 | 0.47 | 0.61 | 0.87 | 9.72 |
| TKN as N | 41 | 3 | N/A | | | | 0.2 | 0.24 | 0.34 | 0.56 | 0.78 | 1.08 | 3.7 |
| Total Phosphorus | 38 | 2 | N/A | | | | 0.02 | 0.04 | 0.07 | 0.08 | 0.12 | 0.62 | 1.35 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 116 | 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 significance

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

**Location:** GOOSE CRK AT SR 1524 NR MINT HILL
**Station #:** Q8360000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.13090 **Longitude:** -80.63105 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-18

**Time period:** 01/24/2007 to 12/13/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.2 | 5.7 | 6.3 | 7 | 8.2 | 9.8 | 12.7 |
| | 85 | 0 | <5 | 0 | 0 | | 5.2 | 5.7 | 6.3 | 7 | 8.2 | 9.8 | 12.7 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.8 | 7 | 7.1 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.8 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 126 | 151 | 171 | 191 | 216 | 246 | 286 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 0.7 | 7.5 | 12.7 | 21.6 | 25.5 | 26.7 | 28.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 3 | 5 | | 2.1 | 3.4 | 5.1 | 8.6 | 13 | 23.8 | 110 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 218.8 | 2 | 12.5 | |

**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 significance

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

**Location:** ROCKY RIV AT SR 1606 NR MONROE
**Station #:** Q8385000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.16987 **Longitude:** -80.47277 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17

**Time period:** 01/24/2007 to 12/14/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.9 | 6.3 | 6.6 | 7.5 | 8.9 | 10.8 | 14.5 |
| | 85 | 0 | <5 | 0 | 0 | | 5.9 | 6.3 | 6.6 | 7.5 | 8.9 | 10.8 | 14.5 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.7 | 6.9 | 7 | 7.1 | 7.2 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 90 | 115 | 126 | 139 | 158 | 183 | 296 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.7 | 7.7 | 12.9 | 21.9 | 25.6 | 26.6 | 28.6 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 6 | 10 | 43.7 | 1.6 | 3.2 | 5.9 | 9.1 | 21.8 | 104 | 390 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 14 | N/A | | | | 0.01 | 0.01 | 0.01 | 0.06 | 0.1 | 0.21 | 0.68 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.67 | 1.37 | 2.39 | 3.96 | 6.54 | 9.33 | 13.84 |
| TKN as N | 60 | 2 | N/A | | | | 0.2 | 0.39 | 0.58 | 0.82 | 1.04 | 1.53 | 2.82 |
| Total Phosphorus | 57 | 0 | N/A | | | | 0.08 | 0.21 | 0.34 | 0.55 | 0.8 | 1.23 | 1.36 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 92.9 | 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 significance

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

**Location:** N FORK CROOKED CRK AT SR 1520 NR MONROE
**Station #:** Q8386000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.10785 **Longitude:** -80.61538 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-20-1

**Time period:** 01/24/2007 to 12/13/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 83 | 0 | <4 | 2 | 2.4 | | 3.4 | 4.2 | 5.1 | 5.7 | 7.2 | 8.8 | 10.3 |
| | 83 | 0 | <5 | 20 | 24.1 | > 99.9 | 3.4 | 4.2 | 5.1 | 5.7 | 7.2 | 8.8 | 10.3 |
| pH (SU) | 83 | 0 | <6 | 0 | 0 | | 6.1 | 6.3 | 6.4 | 6.6 | 6.8 | 7.1 | 7.3 |
| | 83 | 0 | >9 | 0 | 0 | | 6.1 | 6.3 | 6.4 | 6.6 | 6.8 | 7.1 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 83 | 0 | N/A | | | | 170 | 207 | 234 | 273 | 318 | 365 | 417 |
| Water Temperature (°C) | 83 | 0 | >32 | 0 | 0 | | 1.7 | 7.6 | 12.7 | 21.6 | 25.6 | 27.3 | 28.6 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 59 | 0 | >50 | 6 | 10.2 | 45.4 | 3.6 | 5.8 | 10 | 14 | 19 | 58 | 130 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 15 | 352.9 | 7 | 46.7 | 98.2 |

**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 significance

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

**Location:** N FORK CROOKED CRK AT SR 1514 NR MONROE
**Station #:** Q8386200 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.10235 **Longitude:** -80.58428 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-20-1

**Time period:** 01/24/2007 to 12/13/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 83 | 0 | <4 | 0 | 0 | | 4.3 | 4.8 | 5.3 | 6 | 7.3 | 9 | 10.6 |
| | 83 | 0 | <5 | 11 | 13.3 | 87.7 | 4.3 | 4.8 | 5.3 | 6 | 7.3 | 9 | 10.6 |
| pH (SU) | 83 | 0 | <6 | 0 | 0 | | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 | 7.2 | 7.3 |
| | 83 | 0 | >9 | 0 | 0 | | 6.4 | 6.5 | 6.6 | 6.7 | 6.8 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 83 | 0 | N/A | | | | 164 | 192 | 211 | 244 | 287 | 329 | 388 |
| Water Temperature (°C) | 83 | 0 | >32 | 0 | 0 | | 1.7 | 7.7 | 12.6 | 21.4 | 25.7 | 26.9 | 28.8 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 59 | 0 | >50 | 2 | 3.4 | | 3.5 | 5.2 | 7.5 | 13 | 21 | 34 | 110 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 15 | 257.9 | 4 | 26.7 | 64.8 |

**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 significance

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

**Location:** CROOKED CRK AT NC 218 NR MONROE
**Station #:** Q8388000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.13302 **Longitude:** -80.48958 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-20

**Time period:** 01/24/2007 to 12/14/2011

| | # results | # ND | Results not meeting EL | # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.2 | 5.6 | 6 | 6.7 | 8 | 10.1 | 14.4 |
| | 85 | 0 | <5 | 0 | 0 | | 5.2 | 5.6 | 6 | 6.7 | 8 | 10.1 | 14.4 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.6 | 6.7 | 6.8 | 7 | 7.2 | 7.5 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.6 | 6.7 | 6.8 | 7 | 7.2 | 7.5 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 129 | 145 | 160 | 192 | 224 | 277 | 340 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 0.5 | 7.4 | 12.3 | 21.5 | 25.3 | 26.3 | 28.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 5 | 8.3 | | 2.1 | 4.4 | 7.2 | 13 | 27.8 | 37.9 | 160 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 153.4 | 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 significance

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

**Location:** CROOKED CRK AT SR 1601 NR MONROE
**Station #:** Q8388900 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.13808 **Longitude:** -80.50538 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-20

**Time period:** 01/24/2007 to 12/14/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 4.1 | 4.5 | 5.3 | 6.2 | 7.7 | 9.5 | 14.3 |
| | 85 | 0 | <5 | 13 | 15.3 | 92.0 | 4.1 | 4.5 | 5.3 | 6.2 | 7.7 | 9.5 | 14.3 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.2 | 6.3 | 6.4 | 6.7 | 6.9 | 7.1 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.2 | 6.3 | 6.4 | 6.7 | 6.9 | 7.1 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 145 | 168 | 181 | 225 | 278 | 334 | 403 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 0.4 | 7.2 | 12.2 | 21.6 | 25.2 | 26.4 | 27.9 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 8 | 13.3 | 75.2 | 2.1 | 3.6 | 5.5 | 12 | 24.8 | 55 | 180 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 200.4 | 1 | 6.2 | |

**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 significance

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

**Location:** LONG CRK AT SR 1968 NR OAKBORO
**Station #:** Q8715000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.26667 **Longitude:** -80.25693 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-31

**Time period:** 01/24/2007 to 12/12/2011

| | # results | # ND | Results not meeting EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 72 | 0 | <4 | 0 | 0 | | 5.5 | 6.3 | 6.6 | 7.4 | 9.7 | 10.7 | 13.2 |
| | 72 | 0 | <5 | 0 | 0 | | 5.5 | 6.3 | 6.6 | 7.4 | 9.7 | 10.7 | 13.2 |
| pH (SU) | 72 | 0 | <6 | 0 | 0 | | 6.6 | 6.8 | 7 | 7.1 | 7.2 | 7.3 | 8.2 |
| | 72 | 0 | >9 | 0 | 0 | | 6.6 | 6.8 | 7 | 7.1 | 7.2 | 7.3 | 8.2 |
| Spec. conductance (umhos/cm at 25°C) | 72 | 0 | N/A | | | | 106 | 141 | 158 | 187 | 236 | 279 | 347 |
| Water Temperature (°C) | 72 | 0 | >32 | 0 | 0 | | 1.4 | 6.4 | 9.3 | 19.2 | 23.6 | 25.4 | 26.9 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 52 | 0 | >50 | 2 | 3.8 | | 2.1 | 3.1 | 4.3 | 6 | 11.8 | 22 | 70 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 13 | 126.3 | 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 significance

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

**Location:** LONG CRK AT SR 1917 NR ROCKY RIVER SPRINGS
**Station #:** Q8720000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.22392 **Longitude:** -80.25857 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-31

**Time period:** 01/24/2007 to 07/29/2008

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 27 | 0 | <4 | 0 | 0 | | 5.8 | 6.1 | 6.3 | 7.3 | 9 | 10.7 | 11.1 |
| | 27 | 0 | <5 | 0 | 0 | | 5.8 | 6.1 | 6.3 | 7.3 | 9 | 10.7 | 11.1 |
| pH (SU) | 27 | 0 | <6 | 0 | 0 | | 6.8 | 7 | 7.1 | 7.2 | 7.2 | 7.2 | 7.4 |
| | 27 | 0 | >9 | 0 | 0 | | 6.8 | 7 | 7.1 | 7.2 | 7.2 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 27 | 0 | N/A | | | | 141 | 157 | 186 | 211 | 239 | 306 | 352 |
| Water Temperature (°C) | 27 | 0 | >32 | 0 | 0 | | 6 | 6.3 | 10.4 | 20.3 | 24.2 | 25.5 | 26.3 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 19 | 0 | >50 | 1 | 5.3 | | 2.5 | 2.8 | 4.6 | 8.8 | 14 | 20 | 110 |

**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 significance

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

**Location:** RICHARDSON CRK AT SR 1751 WALKUP AVE AT MONROE
**Station #:** Q8800000 **Hydrologic Unit Code:** 3040105
**Latitude:** 34.98970 **Longitude:** -80.50965 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-36-(5)

**Time period:** 01/25/2007 to 12/13/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.7 | 6.3 | 6.5 | 7.3 | 9.2 | 10.7 | 13.4 |
| | 85 | 0 | <5 | 0 | 0 | | 5.7 | 6.3 | 6.5 | 7.3 | 9.2 | 10.7 | 13.4 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.4 | 6.7 | 6.8 | 6.9 | 7 | 7.1 | 7.2 |
| | 85 | 0 | >9 | 0 | 0 | | 6.4 | 6.7 | 6.8 | 6.9 | 7 | 7.1 | 7.2 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 104 | 138 | 152 | 170 | 192 | 219 | 502 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.1 | 5.1 | 11.2 | 18.7 | 22.6 | 24.8 | 26.5 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 2 | 3.3 | | 2.4 | 3.8 | 5.8 | 10.5 | 16.8 | 24.9 | 210 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 5 | N/A | | | | 0.01 | 0.02 | 0.03 | 0.08 | 0.12 | 0.17 | 0.84 |
| NO2 + NO3 as N | 60 | 1 | N/A | | | | 0.01 | 0.69 | 3.29 | 8.62 | 13.65 | 16.73 | 19.56 |
| TKN as N | 60 | 0 | N/A | | | | 0.39 | 0.74 | 0.93 | 1.23 | 1.72 | 2.26 | 4.9 |
| Total Phosphorus | 57 | 0 | N/A | | | | 0.08 | 0.2 | 0.38 | 0.94 | 1.44 | 1.77 | 2.62 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 16 | 175.4 | 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 significance

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

**Location:** RICHARDSON CRK AT SR 1006 NR MONROE
**Station #:** Q8820000 **Hydrologic Unit Code:** 3040105
**Latitude:** 35.03220 **Longitude:** -80.47163 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-17-36-(5)

**Time period:** 01/25/2007 to 12/13/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.8 | 6.4 | 6.6 | 7.4 | 8.5 | 10.9 | 13.3 |
| | 85 | 0 | <5 | 0 | 0 | | 5.8 | 6.4 | 6.6 | 7.4 | 8.5 | 10.9 | 13.3 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.3 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 112 | 147 | 158 | 177 | 210 | 246 | 978 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.2 | 5.3 | 11.7 | 18.8 | 22.8 | 24.9 | 26.8 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 59 | 0 | >50 | 3 | 5.1 | | 1.8 | 3 | 4.1 | 6.8 | 17 | 37 | 290 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 7 | N/A | | | | 0.01 | 0.01 | 0.03 | 0.08 | 0.13 | 0.19 | 0.5 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 1.17 | 4.09 | 10.12 | 19.06 | 27.46 | 33.7 | 38.5 |
| TKN as N | 60 | 0 | N/A | | | | 0.28 | 0.97 | 1.28 | 1.5 | 1.78 | 2.2 | 2.85 |
| Total Phosphorus | 57 | 0 | N/A | | | | 0.05 | 0.53 | 0.8 | 1.84 | 3.04 | 3.46 | 4.69 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 170 | 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 significance

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

**Location:** LANES CRK AT SR 1005 LANDSFORD RD NR MARSHVILLE
**Station #:** Q9021300 **Hydrologic Unit Code:** 3040105
**Latitude:** 34.92316 **Longitude:** -80.34210 **Stream class:** WS-V
**Agency:** YPDRBA **NC stream index:** 13-17-40-(1)

**Time period:** 01/25/2007 to 12/13/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 83 | 0 | <4 | 2 | 2.4 | | 1.4 | 4.7 | 5.4 | 6.4 | 7.4 | 9.9 | 12 |
| | 83 | 0 | <5 | 11 | 13.3 | 79.5 | 1.4 | 4.7 | 5.4 | 6.4 | 7.4 | 9.9 | 12 |
| pH (SU) | 83 | 0 | <6 | 0 | 0 | | 6.2 | 6.4 | 6.5 | 6.7 | 6.8 | 7.2 | 7.3 |
| | 83 | 0 | >9 | 0 | 0 | | 6.2 | 6.4 | 6.5 | 6.7 | 6.8 | 7.2 | 7.3 |
| Spec. conductance (umhos/cm at 25°C) | 83 | 0 | N/A | | | | 68 | 158 | 177 | 203 | 226 | 304 | 412 |
| Water Temperature (°C) | 83 | 0 | >32 | 0 | 0 | | 1 | 4.5 | 12.3 | 18.6 | 22.4 | 24.5 | 26.2 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 57 | 0 | >50 | 3 | 5.3 | | 4.2 | 5.5 | 6.8 | 9.7 | 18.5 | 26.2 | 360 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 57 | 9 | N/A | | | | 0.01 | 0.01 | 0.03 | 0.12 | 0.22 | 0.4 | 1.55 |
| NO2 + NO3 as N | 57 | 8 | >10 | 0 | 0 | | 0.01 | 0.01 | 0.06 | 0.74 | 1.78 | 3.08 | 4.79 |
| TKN as N | 57 | 1 | N/A | | | | 0.2 | 0.73 | 1.02 | 1.47 | 2.06 | 2.44 | 4.11 |
| Total Phosphorus | 54 | 0 | N/A | | | | 0.03 | 0.12 | 0.24 | 0.36 | 0.62 | 0.86 | 1.57 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 179 | 3 | 18.8 | |

**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 significance

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

**Location:** LITTLE RIV AT SR 1148 NR ELLERBE
**Station #:** Q9320000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.10633 **Longitude:** -79.89895 **Stream class:** WS-IV
**Agency:** YPDRBA **NC stream index:** 13-25-(37.5)

**Time period:** 01/25/2007 to 12/13/2011

| | # results | # ND | EL | Results not meeting EL # | % | %Conf | Min | Percentiles 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 4.2 | 5.5 | 5.8 | 6.8 | 8.4 | 10.7 | 12.9 |
| | 85 | 0 | <5 | 3 | 3.5 | | 4.2 | 5.5 | 5.8 | 6.8 | 8.4 | 10.7 | 12.9 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.4 | 6.5 | 6.7 | 7 | 7.2 | 7.2 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.4 | 6.5 | 6.7 | 7 | 7.2 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 54 | 83 | 100 | 146 | 179 | 210 | 311 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 1.1 | 5.2 | 11.9 | 19.8 | 24 | 25.6 | 27.6 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 2 | 3.3 | | 3.2 | 4.1 | 5.7 | 10 | 18.8 | 32.9 | 160 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 155.2 | 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 significance

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

**Location:** TOMS BRANCH AT SR 1310 NR ELLERBE
**Station #:** Q9340000 **Hydrologic Unit Code:** 3040104
**Latitude:** 35.08783 **Longitude:** -79.78942 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-28-2-4

**Time period:** 01/25/2007 to 12/13/2011

| | # | # | | Results not meeting EL | | | Percentiles | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **results** | **ND** | **EL** | **#** | **%** | **%Conf** | **Min** | **10th** | **25th** | **50th** | **75th** | **90th** | **Max** |
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 83 | 0 | <4 | 0 | 0 | | 5.7 | 6.3 | 6.5 | 7.3 | 9 | 11 | 13.6 |
| | 83 | 0 | <5 | 0 | 0 | | 5.7 | 6.3 | 6.5 | 7.3 | 9 | 11 | 13.6 |
| pH (SU) | 83 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| | 83 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7 | 7.1 | 7.2 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 83 | 0 | N/A | | | | 89 | 109 | 122 | 147 | 171 | 213 | 265 |
| Water Temperature (°C) | 83 | 0 | >32 | 0 | 0 | | 0.8 | 4.7 | 10.7 | 19.3 | 23.4 | 24.9 | 27 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 55 | 0 | >50 | 3 | 5.5 | | 2.1 | 4.7 | 6.7 | 11 | 17 | 27.8 | 180 |

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

| **# results:** | **Geomean** | **# > 400:** | **% > 400:** | **%Conf:** |
|---|---|---|---|---|
| 14 | 116.8 | 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 significance

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

**Location:** PEE DEE RIV AT US 74 NR ROCKINGHAM
**Station #:** Q9400000 **Hydrologic Unit Code:** 3040201
**Latitude:** 34.94567 **Longitude:** -79.86910 **Stream class:** C
**Agency:** YPDRBA **NC stream index:** 13-(34)

**Time period:** 01/25/2007 to 12/13/2011

| | # results | # ND | Results not meeting EL | # | % | %Conf | Min | 10th | 25th | 50th | 75th | 90th | Max |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Field** | | | | | | | | | | | | | |
| D.O. (mg/L) | 85 | 0 | <4 | 0 | 0 | | 5.3 | 6.3 | 6.7 | 7.5 | 9 | 11 | 13.2 |
| | 85 | 0 | <5 | 0 | 0 | | 5.3 | 6.3 | 6.7 | 7.5 | 9 | 11 | 13.2 |
| pH (SU) | 85 | 0 | <6 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7.1 | 7.2 | 7.4 | 7.4 |
| | 85 | 0 | >9 | 0 | 0 | | 6.5 | 6.8 | 6.9 | 7.1 | 7.2 | 7.4 | 7.4 |
| Spec. conductance (umhos/cm at 25°C) | 85 | 0 | N/A | | | | 79 | 96 | 104 | 117 | 148 | 172 | 221 |
| Water Temperature (°C) | 85 | 0 | >32 | 0 | 0 | | 2 | 5.5 | 13 | 20.2 | 24 | 26.4 | 27.8 |
| **Other** | | | | | | | | | | | | | |
| Turbidity (NTU) | 60 | 0 | >50 | 2 | 3.3 | | 5.2 | 6.6 | 8.1 | 11 | 18.8 | 29.5 | 65 |
| **Nutrients (mg/L)** | | | | | | | | | | | | | |
| NH3 as N | 60 | 7 | N/A | | | | 0.01 | 0.01 | 0.04 | 0.09 | 0.15 | 0.2 | 0.3 |
| NO2 + NO3 as N | 60 | 0 | N/A | | | | 0.09 | 0.16 | 0.3 | 0.57 | 0.71 | 0.89 | 1.07 |
| TKN as N | 60 | 3 | N/A | | | | 0.2 | 0.26 | 0.48 | 0.64 | 0.82 | 1.14 | 3.29 |
| Total Phosphorus | 57 | 4 | N/A | | | | 0.02 | 0.03 | 0.06 | 0.09 | 0.11 | 0.16 | 0.53 |

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

| # results: | Geomean | # > 400: | % > 400: | %Conf: |
|---|---|---|---|---|
| 16 | 80 | 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 significance