

Section B - Chapter 9

Lumber River Subbasin 03-07-58

White Marsh

9.1 Subbasin Overview

| <i>Subbasin 03-07-58 at a Glance</i> | |
|---|---------------------|
| <u>Land and Water Area</u> | |
| Total area: | 308 mi ² |
| Land area: | 306 mi ² |
| Water area: | 2 mi ² |
| <u>Population Statistics</u> | |
| 2000 Est. Pop.: | 15,281 people |
| <u>Land Cover (percent)</u> | |
| Forest/Wetland: | 62 |
| Surface Water: | 1 |
| Urban: | 1 |
| Agriculture: | 37 |
| <u>Counties</u> | |
| Bladen and Columbus | |
| <u>Municipalities</u> | |
| Brunswick, Chadbourn, Clarkton and Whiteville | |

Population growth in the subbasin is concentrated around Chadbourn and Whiteville. Land use in the subbasin is mostly forest and agriculture areas. Most streams have a braided channel, a wide floodplain with little or no flow during the summer months.

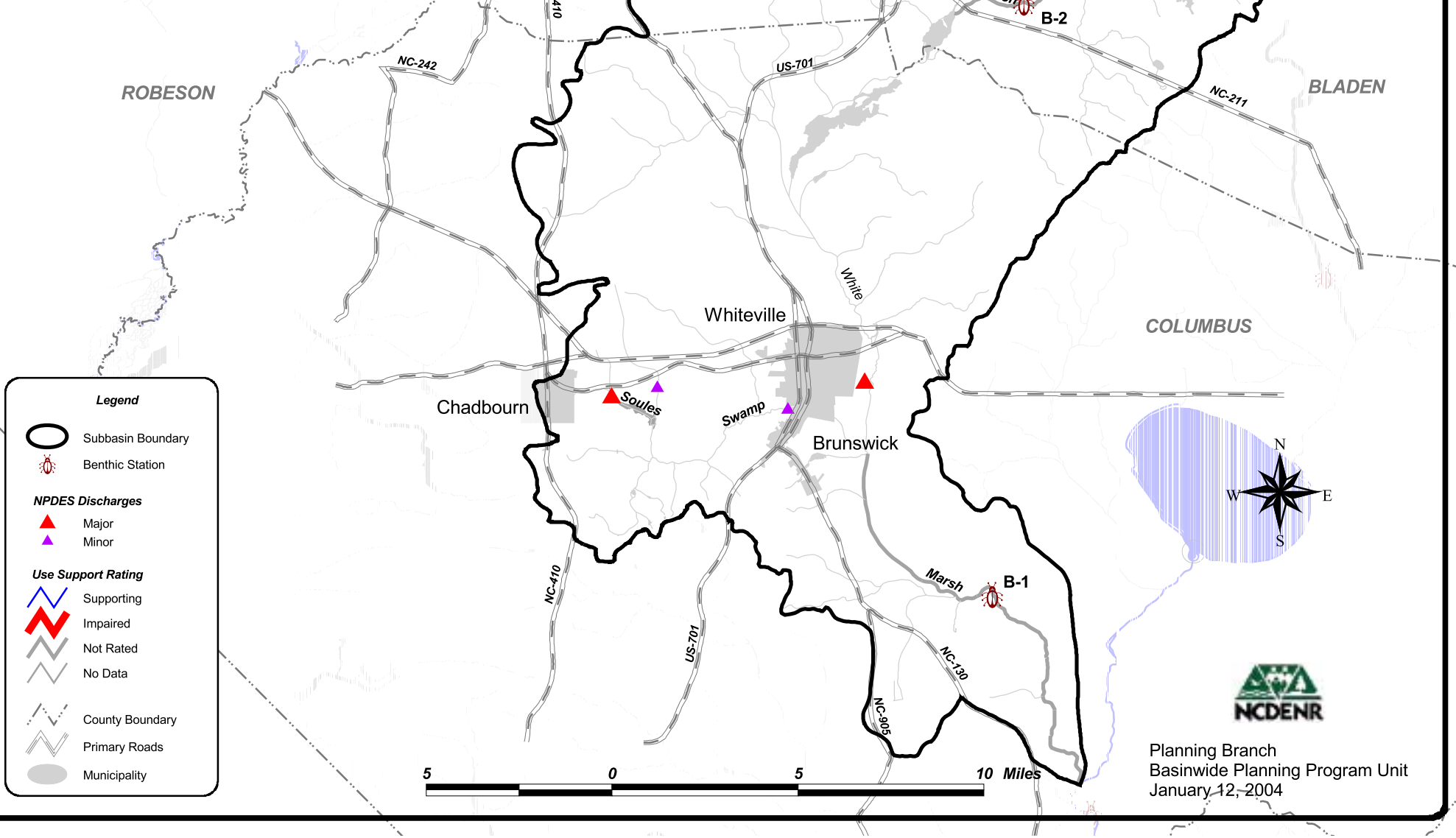
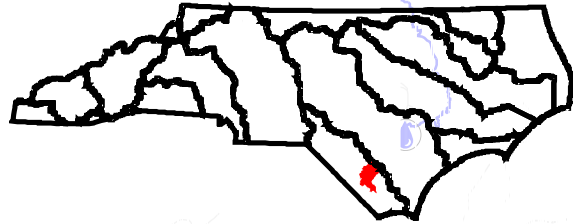
There are six NPDES wastewater discharge permits in this subbasin with a total permitted flow of 4.27 MGD. The largest NPDES facility is Whiteville WWTP which discharges 3.0 MGD to White Marsh. Refer to Appendix I for identification and more information on individual NPDES permit holders. There are also 34 registered swine operations in this subbasin.

There were two benthic macroinvertebrate community sites sampled (Figure B-9 and Table B-17) in 2001 as part of basinwide monitoring. Both sites were Not Rated, as biocriteria were being developed (page 57) to assess these swampy streams. There are no ambient monitoring stations located in this subbasin. Refer to the *2002 Lumber River Basinwide Assessment Report* at <http://www.esb.enr.state.nc.us/bar.html> and Section A, Chapter 3

for more information on monitoring.

Use support ratings are summarized in Part 9.2 below. Recommendations, current status and future recommendations for waters that were Impaired in 1999 and newly Impaired waters are discussed in Part 9.3 below. Water quality issues related to specific waterbodies with noted impacts are discussed in Part 9.4. Refer to Appendix III for use support methods and more information on all monitored waters.

Figure B-9 Lumber River Subbasin 03-07-58



Legend

- Subbasin Boundary
- Benthic Station
- NPDES Discharges**
 - Major
 - Minor
- Use Support Rating**
 - Supporting
 - Impaired
 - Not Rated
 - No Data
- County Boundary
- Primary Roads
- Municipality



Planning Branch
 Basinwide Planning Program Unit
 January 12, 2004

Table B-17 DWQ Benthic Macroinvertebrate Monitoring Locations and Bioclassifications (1996-2001) for Subbasin 03-07-58

| Benthic Macroinvertebrate Community Monitoring Sites | | | | | |
|--|--------------|----------|----------|-----------|-----------|
| Site ¹ | Waterbody | County | Location | 1996 | 2001 |
| B-1 | White Marsh | Columbus | SR 1001 | -- | Not Rated |
| B-2 | Elkton Marsh | Bladen | SR 1710 | Not Rated | Not Rated |

¹ B = benthic macroinvertebrates

9.2 Use Support Summary

Use support ratings (page 47) in subbasin 03-07-58 were assigned for aquatic life, recreation and fish consumption categories. All waters in the subbasin are considered Impaired on an evaluated basis because of a fish consumption advice (page 59). Refer to Table B-18 for a summary of use support ratings by category for waters in the subbasin.

Table B-18 Summary of Use Support Ratings by Use Support Category in Subbasin 03-07-58

| Use Support Rating | Basis | Aquatic Life | Recreation | Fish Consumption |
|--------------------|-------------------|--------------|------------|------------------|
| Supporting | Monitored | 0 | 0 | 0 |
| | All Waters | 0 | 0 | 0 |
| Impaired | Monitored | 0 | 0 | 0 |
| | All Waters | 0 | 0 | 220.5 mi |
| Not Rated | Monitored | 18.0 mi | 0 | 0 |
| No Data | N/A | 202.5 mi | 220.5 mi | 0 |
| Total | Monitored | 18.0 mi | 0 | 0 |
| | All Waters | 220.5 mi | 220.5 mi | 220.5 mi |
| | Percent Monitored | 8.2% | 0% | 0% |

Note: All waters include monitored, evaluated and waters that were not assessed.

9.3 Status and Recommendations of Previously and Newly Impaired Waters

There were no Impaired streams identified in the 1999 Lumber River Basinwide Plan in this subbasin. All waters in the subbasin are considered Impaired on an evaluated basis because of a fish consumption advice (page 59). There are no other newly Impaired waters in subbasin 03-07-58.

9.4 Status and Recommendations for Waters with Noted Impacts

The surface waters discussed in this section are not Impaired. However, notable water quality problems and concerns have been documented for some waters based on this assessment. Attention and resources should be focused on these waters to prevent additional degradation or facilitate water quality improvement.

Waters in the following section are identified by assessment unit number (AU#). This number is used to track defined segments in the water quality assessment database and the 303(d) Impaired waters list. The assessment unit number is a subset of the DWQ index number (classification identification number). A letter attached to the end of the AU# indicates that the assessment is smaller than the DWQ index segment. No letter indicates that the assessment unit and the DWQ index segment are the same.

9.4.1 Soules Swamp [AU# 15-4-8]

Current Status and Water Quality Initiative

Chadborn WWTP was experiencing noncompliance problems with BOD during the assessment period (1996-2001). The facility received a \$1,312,000 grant from the Clean Water Management Trust Fund and a new plant has been constructed. To date, the facility has been in compliance.

9.4.2 Horseshoe Swamp [AU# 15-4-1-1-2-2]

Current Status and 2003 Recommendations

Horseshoe Swamp was impacted by discharge of animal wastewater from a sprayfield operation. The owner was assessed a civil penalty. DWQ will continue to inspect this operation.

9.4.3 Elkton Marsh [AU# 15-4-1-1-2]

Current Status and 2003 Recommendations

Elkton Marsh is currently Not Rated. An unnamed tributary of Elkton Marsh was impacted by discharge of animal wastewater from a sprayfield operation. The owner was assessed a civil penalty. DWQ will continue to inspect this operation.

9.4.4 Brown Marsh Swamp [AU# 15-4-1-1-1]

Current Status and 2003 Recommendations

An unnamed tributary of Brown Marsh Swamp was impacted by discharge of animal wastewater from a sprayfield operation. The owner was assessed a civil penalty. DWQ will continue to inspect this operation.

9.4.5 White Marsh [AU# 15-4a, b & c]

Current Water Quality Initiative

The Nature Conservancy received a total of \$374,000 in grants from the CWMTF to acquire 517 acres along White Marsh. See page 152 for project descriptions.