13.1 Subbasin Overview

Subbasin 03-04-13 at a Glance

Land and Water Area

Total area:	277 mi^2
Land area:	145 mi^2
Water area:	132 mi^2

Population Statistics

2000 Est. Pop.:	5,469 people
Pop. Density:	20 persons / mi^2

Land Cover (percent)

Forest / Wetland:	33.6
Surface Water:	49.8
Urban:	4.0
Cultivated Crop:	12.2
Pasture / Managed Herbaceous:	0.4

Counties

Carteret and Pamlico

Municipalities

Bayboro, Alliance, Stonewall and Mesic

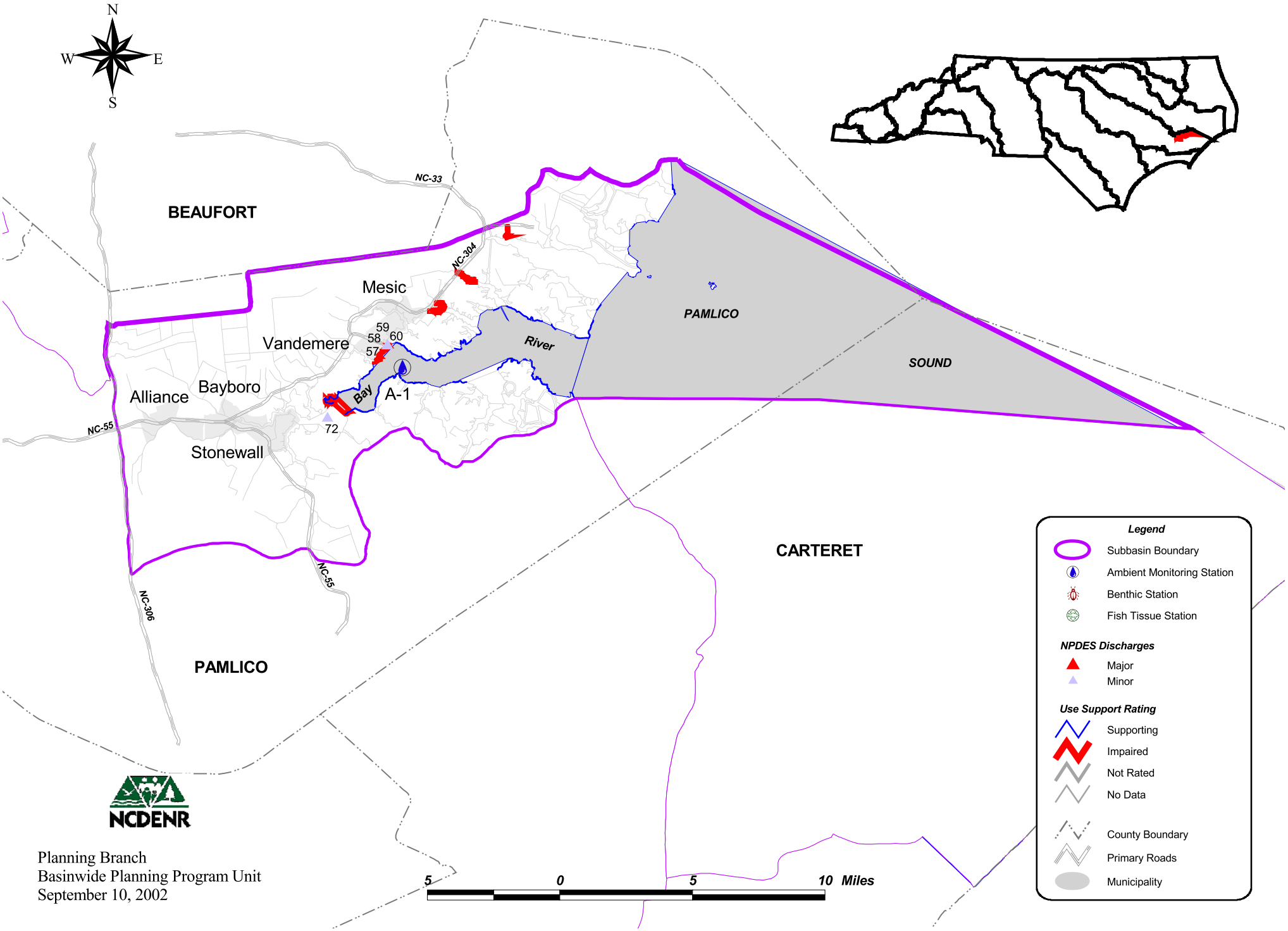
Population growth in the subbasin is minimal. Land use in the subbasin is mostly agricultural. There are 933 acres of managed public lands in this subbasin, mostly associated with the Goose Creek Game Lands. There are also two registered animal operations in this subbasin.

There were no biological samples collected in this subbasin. There is one ambient monitoring station in this subbasin (Figure B-13 and Table B-37). Refer to *2001 Neuse River Basinwide Assessment Report* at http://www.esb.enr.state.nc.us/bar.html and Section A, Chapter 3 for more information on monitoring.

Shellfish Sanitation and Recreational Water Quality Section of the Division of Environmental Health (page 52) has classified 81,257 acres as approved and 198 acres as prohibited /restricted (page 84). The Bay River WWTP (map # 72) ceased discharge in 2000.

Use support ratings are summarized in Part 13.2 below. Recommendations, current status and future recommendations for waters that were impaired in 1998 are discussed in Part 13.3 below. Current status and future recommendations for newly impaired waters are discussed in Part 13.4 below. Water quality issues related to the entire subbasin are discussed in Part 13.5. Unless otherwise noted, all discussions are for the aquatic life and secondary recreation use support category. Refer to Appendix III for a complete list of monitored waters by use support category and more information on supporting monitored waters.

Figure B-13 Neuse River Subbasin 03-04-13



Planning Branch
Basinwide Planning Program Unit
September 10, 2002

Table B-37 DWQ Monitoring Locations in Subbasin 03-04-13

Ambient Monitoring Sites					
Map #[1]	**Waterbody**	**County**	**Location**	**Station #**	**Noted Parameters[2]**
A-1	Bay River	Pamlico	Channel Marker 5	J9950000	none

[1] A = ambient monitoring station

[2] Parameters are noted if in excess of state standards in greater than 10 percent of all samples.

13.2 Use Support Summary

Use support ratings (page 54) in subbasin 03-04-13 were assigned for aquatic life and secondary recreation, fish consumption, primary recreation and shellfish harvesting. All waters in the subbasin are considered impaired on an evaluated basis because of fish consumption advisories (page 93).

There were 62,244 estuarine acres (77 percent) monitored during this assessment period. Approximately 386 estuarine acres (<1 percent) are impaired in the shellfish harvesting use support category. Refer to Table B-38 for a summary of use support ratings by use support category for waters in the subbasin. Use support ratings for waters that were monitored and impaired in at least one use support category or were impaired in 1998 are presented in Table B-39.

Table B-38 Summary of Use Support Ratings by Use Support Category in Subbasin 03-04-13

Use Support Rating	Basis	Aquatic Life and Secondary Recreation	Fish Consumption	Primary Recreation	Shellfish Harvesting
Supporting	Monitored	62,244.0 ac	0	73,243.0 ac	1.4 mi 81,270.5 ac
	All Waters	62,244.0 ac	0	73,243.0 ac	1.4 mi 81,270.5 ac
Impaired	**Monitored**	**0**	**0**	**0**	**385.6 ac**
	All Waters	0	3.5 mi 83,468.9 ac	0	385.6 ac
Not Rated	Monitored	0	0	0	0
No Data	N/A	3.5 mi 19,224.9 ac	0	1.4 mi 8,413.1 ac	0
Total	Monitored	62,244.0 ac	0	73,243.0 ac	1.4 mi 81,656.1 ac
	All Waters	3.5 mi 83,468.9 ac	3.5 mi 83,468.9 ac	1.4 mi 81,656.1 ac	1.4 mi 81,656.1 ac
	Percent Monitored	0% mi 77% ac	0%	0% mi 89.7% ac	100% mi 100% ac

Note: All waters include monitored, evaluated and waters with no basis.

Table B-39 Previously or Currently Impaired Waters in Subbasin 03-04-13

Name	1998 Status	2002 Status	Use Support Category	Acres
Bay River		Impaired	Shellfish Harvesting	100.0
Harper Creek		Impaired	Shellfish Harvesting	32.5
Bear Creek		Impaired	Shellfish Harvesting	199.9
Bennett Creek		Impaired	Shellfish Harvesting	15.7
Gale Creek		Impaired	Shellfish Harvesting	29.4
Bills Creek		Impaired	Shellfish Harvesting	8.1
			Total 2002 Impaired Acres	**385.6**

13.3 Status and Recommendations of Previously Impaired Waters

13.3.1 Impaired Class SA Waters

Portions of Class SA waters were partially supporting in the 1998 basin plan because they were classified as prohibited to shellfish harvesting by DEH SS (page 52). No specific recommendations were made to address bacterial contamination in these waters in the 1998 basin plan. Because of changes in use support methodology, there are changes in acreages and areas that are impaired in the shellfish harvesting use support category. These waters are discussed below in part 13.4.

13.4 Status and Recommendations of Waters Newly Impaired Waters

13.4.1 Bay River, Harper Creek, Bear Creek, Bennett Creek, Gale Creek and Bills Creek

Current Status
Bay River (100 ac), Harper Creek (32.5 ac), Bear Creek (199.9 ac), Bennett Creek (15.7 ac), Gale Creek (29.4 ac) and Bills Creek (8.1 ac) are impaired for shellfish harvesting. These areas are prohibited because of bacterial levels that do not meet approved area criteria (page 84). The Bay River Sewerage District ceased discharge in December 2000 in the upper portion of the Bay River.

2002 Recommendations
It is recommended that DEH SS evaluate the permanent closure line that was associated with the Bay River discharge to determine if shellfish can be harvested in the 100 acres of now prohibited Class SA waters in the Bay River. DEH SS and DWQ will pursue reclassification of portions of Bay River to Class SA if water quality and shellfish habitat can support the fishery.

DEH SS will continue to monitor bacteriological water quality in these waters. DWQ, DEH, DCM and DMF are currently developing tools to better track water quality changes, make use support decisions, and support research in shellfish harvesting waters of North Carolina (page 84).

13.5 Additional Water Quality Issues Within Subbasin 03-04-13

This section discusses issues that may threaten water quality in the subbasin that are not specific to particular streams, lakes or reservoirs. The issues discussed may be related to waters near certain land use activities or within proximity to different pollution sources.

13.5.1 Impacts of Post-Hurricane De-Snagging on Instream Habitats

Many streams in the subbasin have noted impacts from the recent hurricanes. The biological community in the streams can recover rapidly if instream habitat is maintained. De-snagging operations should carefully remove debris from stream channels to restore natural flow and leave enough instream habitats so the biological community can recover. For more information on this issue, refer to page 86.