

Pamlico County Joint CAMA Land Use Plan

**Community Concerns and Aspirations^{3/4} Plan-
ning Vision
Analysis of Existing and Emerging Trends
Land Use and Development Goals
Growth and Development Policies
Future Land Use Map
Tools for Managing Development
Implementation Action Plan**

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An Advanced Core Land Use Plan
The Preparation of this plan was financed in part through a grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

Pamlico County -Mesic Vandemere Bayboro Minnesott Beach- CAMA Land Use Plan Update

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Pamlico County -Mesic Vandemere Bayboro Minnesott Beach- CAMA Land Use Plan Update

Overview

Pamlico County's permanent population has been growing slowly over the past 20 years. The county has also experienced an upswing in the development of second-home and retirement communities. Working families, retirees, and second-home owners all take advantage of the county's beautiful, clean waters, its outdoor recreation opportunities, its picturesque landscape, and its rural lifestyle. The CAMA Land Use Plan is one of the tools that the county and its municipalities will use to manage its growth and development. The plan will help to ensure that new development and new land uses are consistent with the county's goal of maintaining its rural character; it will help the county plan for essential services; and it will help protect the essential natural resources that define the county's lifestyle.

The CAMA Land Use Plan will serve both day-to-day and long-range functions. The day-to-day functions relate primarily to administration of the county and towns' development management ordinances and the public's understanding and use of these ordinances for land use and development decisions regarding their own property. For the elected boards, the Plan will be a policy and decision guide on matters related to land use and land development. It will not have the status of a local ordinance or code, but the policies and the future land use map will guide decisions on applicable ordinances and policies such as subdivision regulations or flood damage prevention ordinances. The plan may also be used by the elected boards in their decision-making on capital and annual operating budgets.

This plan is the culmination of a 2-year land use planning process that is a cooperative effort between Pamlico County and the Towns of Mesic, Vandemere, Bayboro, and Minnesott Beach. The planning area includes

the entire county, except Oriental where the Town is preparing a separate plan.

The Land Use Plan Steering Committee, appointed by the Board of Commissioners, played a major role in the development of the plan, its policies, and the future land use map. The Committee has members that represent diverse interests and geographic areas of the county.

The Steering Committee reviewed the technical information and it identified major land use assets and problems that provide a base for the land use policies and future land use map. The Steering Committee also reviewed each policy, the future land use classifications, and the future land use map prior to making its recommendations to the Board of Commissioners.

The Steering Committee provided numerous opportunities for residents and property owners to be involved in development of the plan. All Steering Committee meetings were open; the Steering Committee held four community forums on important planning topics; and the Committee held two community open houses to allow residents and property owners to review the plan and make comments.

The plan includes four components:

1. Description of *community concerns and aspirations* and a planning vision for the county. Discussion of this plan component begins on page 5. It includes a sketch of the growth and development-related issues in the county that emerged from the citizen participation process. It also includes the planning vision that provides a valuable foundation for land use and development goals and the policies for growth and development.
2. *Analysis of existing and emerging trends*. This component of the plan, which begins on page 10, provides the technical basis for policy development. It includes trends and forecasts of population, housing and the local economy; it details the opportunities and limitations presented by the town's natural systems; the discussion and analysis addresses existing land use and recent trends; and it provides information on important community facilities. This information is summarized in a Land Suitability Map that provides the base for the County's Future Land Use Map.

3. *Land use goals and policies.* The county's land use and development goals are found on page 52. These goals evolved directly from the planning vision and they provide a road map for working toward the planning. The land use and development policies, which begin on page 54, provide specific on guidance on decisions, programs, and projects to help the county achieve its goals.
4. *Tools for managing development.* This component begins on page 82. It outlines the County's strategy and action plan for implementing its land use policies, including modifications to its current land use and development ordinances.

The plan includes an extensive analysis to determine the consistency of the land use policies and the future land use map with the goals of the coastal area management act and the CRC's land use management topics. The analysis concludes that there is a high level of consistency. Appendix 1 provides detailed information on this analysis.

Advanced Core Plan. This Land Use Plan is classified as an *Advanced Core Plan*. As such, it exceeds the core CAMA planning requirements in three major areas. First, the County recognizes the important relationship between storm water management and water quality. Pamlico County has no operations related to stormwater management and controls no public stormwater facilities. The cooperating municipalities are in much the same circumstances. Never the less, during the analysis phase of the plan update, significant effort was made to identify any stormwater pipes that have or could have a significant impact on water quality. This analysis included review of DWQ Basinwide Plans and Shellfish Sanitation Reports. The result of this analysis indicates that agriculture operations and construction should be the major focus of stormwater policies. In addition, education of the construction community is a major component of a successful stormwater management program. The county's policies reflect these results.

A second area of special concentration is public access. The County sees access as a major part of the quality of life enjoyed by its residents and as a major economic development tool. The Land Use Plan Steering Committee invited experts from the NC Tourism Division and local access supporters to a forum that addressed access development. The plan's policies reflect the findings of these forums.

Third, the County made an exception effort to adjust the Land Suitability Analysis (LSA) Model to reflect local development factors in Pamlico County. The result of this added effort is a Land Suitability Map that reflects local priorities and at the same time addresses the capabilities and limitations of the county's natural systems. This LSA map is the basis for the land classification categories on the Future Land Use Map.

An Advanced Core Land Use Plan

The Preparation of this plan was financed in part through a grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resource Management, National Oceanic and Atmospheric Administration.

PART 1. Community Concerns and Aspirations^{3/4} Planning Vision

The Land Use Plan Steering Committee appointed by the Board of Commissioners used a 3-step process to describe growth-related concerns and aspirations that provide a basis for the land use plan and its policies. The steps included the following:

- Step 1:** Review of technical information related to existing and emerging trends in the county;
- Step 2:** Identification of major community assets and problems related to land use and development;
- Step 3:** Development of an initial planning vision statement, with the idea that this vision statement may be adjusted as the citizen participation process progresses.

Once the Steering Committee identified initial concerns and issues, they scheduled a series of five community forums to bring experts to the county to provide in-depth information on key planning topics for public information and to help with policy development. These planning topics included the following:

- Infrastructure – water, sewer, and roads
- Economic development – retirement and second-home development
- Tourism
- Fishing, farming, and forestry
- Community development – community appearance, housing, and land use

The concerns and issues identified by the Committee are shown below. The county's planning vision follows the concerns and issues.

Assets and Problems

The table below is a summary of the growth-related conditions that will be addressed by the Pamlico land use plan. The summary includes categories that influence land use, development, and water quality and that address the CAMA Land Use Plan Management Topics.

Assets

- Good access to clean, public trust waters that can support tourism and retirement/second home development
- Sound agriculture that is an important part of the local economy and that adds to the county's scenic nature
- Good quality of life with communities that are peaceful, have low noise, good neighbors, and low crime
- Good climate makes the county attractive to families and businesses relocating from other areas
- Resources that support a "retirement economy," including open land, low cost of living, and low taxes
- Strong and growing tourism industry
- Good schools
- Developing access to information technology

Problems

- Natural features, which include public trust waters, wet soils, and wetlands, that (1) must be protected to sustain the county's high quality natural environment and (2) are limiting to the types of development that the county can accommodate
- Availability of adequate water and sewer facilities to address current needs and to support projected growth levels and development patterns – maintaining the potable water supply
- Increasing amount of impervious surfaces and runoff that may degrade water quality – Inadequate/inoperative drainage systems
- Better access to outlying areas and to the surrounding region
- Inadequate access to medical services
- Incorporating agriculture into the county's

- growth and development
- Inconsistent land development regulations – local, state (between departments), and federal)
- Lack of jobs for county residents
- Maintain tax base to keep taxes low and to allow county to provide necessary services
- Waste management – solid waste, abandoned vehicles and mobile homes, wastewater, “junk yards”

Planning Vision – Pamlico County in the Future

The Vision Statement is a direct result of the county’s citizen participation process. It is a word picture that describes what the residents and property owners want the county to be in the future. The vision statement is a consensus of those involved in the land use planning process. It provides a basis for setting priorities, defining goals, and developing policies to achieve them.

The following is Pamlico County’s Planning Vision:

Pamlico County is recognized as the premiere place in coastal North Carolina to live, work, recreate, and to retire. The county and its towns and villages offer a variety of choices in community settings for its residents.

- Higher density development is clustered near the county’s incorporated areas where services are available.
- The unincorporated areas of the county contain a variety of housing types to meet the needs of the county’s families—all ages and income ranges. Yet, most residences are single-family and are located in low-density communities.
- Homes on working farms are a major feature of the county’s rural landscape.

- High quality second-home and retirement communities are located to take advantage of the county's water resources.

Attractive, environmentally sound marinas, which support second home and retirement communities and touring boats, are located on suitable sites throughout the county.

The county and towns protect the appearance of the community by working with residents and property owners to—

- ... repair deteriorated houses,
- ... replace vacant, dilapidated houses, and
- ... locate and buffer unsightly outside storage in a manner that ensures it does not negatively impact water quality or the county's economic development.

Businesses that provide services and jobs are located so that they are convenient to the county's residential communities but do not conflict with the residential environment.

Its waters - the rivers and creeks and the wetlands that surround them, its farms, and its forestlands, define the county's scenic character. The county and its citizens recognize that our natural resources support our coastal lifestyle and that the community's livelihood is tied to good stewardship of these resources. Our waters are clean, productive, and accessible; our marshes and wetlands are preserved.

Pamlico County's economy is stable. Farming, forestry, and fishing remain important parts of the county's economy. However, the economy also includes a variety of businesses that take advantage of developing information technology, that support the retirement and second-home markets, and that provide support growing resource-based tourism - sail-

ing, fishing, hunting, and paddling. Pamlico County is also a residential base for families that have family members working in the surrounding region. The County works with local organizations, other local governments in the region, and the state DOT to make these workers' access to jobs outside of the county as safe and efficient as possible.

The county places its infrastructure - water, sewer, and roads - where it will help create the kind of development and the type of development patterns that it desires.

The county respects that a part of the quality of life of its residents is defined by freedom from unnecessarily restrictive regulations on decisions concerning use of the land.

Excellent county services support the quality of life offered by Pamlico County—

- ... The county is a safe place to live and work. Sheriff's Department insures that the county has a low crime rate and that residents are free from the fear of crime.
- ... The water department works to insure that all residences and businesses have high quality water to meet their needs; the metropolitan sewer district works to provide sewage collection and treatment services where more intensive development is expected to occur.
- ... State-of-the-art fire and emergency medical services are quickly available throughout the county.
- ... The public schools and community college are accessible and provide an excellent foundation for life-long learning.
- ... Active and passive recreational opportunities abound for everyone—children, teens, adults, and seniors.

PART 2. Analysis of Existing and Emerging Conditions

Part 2 of the Land Use Plan is designed to provide an information base to support the formulation of policies to guide future growth and development in Pamlico County.

This part of the plan includes the following major sections:

Section I	Population, Housing, and Economy
Section II	Natural Systems Analysis
Section III	Analysis of Existing Land Use and Development
Section IV	Analysis of Community Facilities
Section V	Land Suitability Analysis
Section VI	Review of Current Plans and Policies

The following series of maps was prepared to support the analysis of natural systems:

- Map 1. 1990-2000 Population Growth
- Map 2. 2000-2002 Building Permits
- Map 3. Estuarine System
- Map 4. Coastal and Non-coastal Wetlands
- Map 5. Soil Suitability for Septic Tanks
- Map 6. Natural Hazards
- Map 7. Fragile Areas
- Map 8. Environmental Composite Map
- Map 9. Closed Shellfish Growing Areas
- Map 10. Existing Land Use
- Map 11. Cropland and Forestland
- Map 12A. Community Facilities – Sewer and Water
- Map 12B. Community Facilities – Highways
- Map 13. Land Suitability Analysis

All of these maps are included in a summary report on Phase I of the Land Use Plan Update, which was completed in 2003. This report is available for inspection in the County Manager's office in Bayboro. Only Map 8, Envi-

ronmental Composite Map, Map 9, Closed Shellfish Growing Areas, Map 10, Existing Land Use, and Map 13 Land Suitability Analysis are included in this plan.

Section I Population, Housing, and Economy

1.1 Population

1.1.1 Permanent population trends and current estimate

1.1.1.1 Regional and county growth trends

Table 1 shows Pamlico County's population growth over the past 20 years compared to the other counties in the 5-county region. For the 2 decades, Carteret County was the fastest growing county. The national trend of population movement toward coastal areas and the growth of retirement communities influenced its 44% growth. Expansion of the military complexes in the region undoubtedly had a significant impact on growth as well.

**Table 1
Population Growth
Pamlico County Compared to Region, 1980-2000**

County	Total Population			Percent Change	
	1980	1990	2000	1990-2000	1980-2000
Carteret	41,092	52,556	59,383	13.0%	44.5%
Beaufort	40,355	42,283	44,958	6.3%	11.4%
Craven	71,043	81,613	91,436	12.0%	28.7%
Hyde	5,873	5,411	5,826	7.7%	-0.8%
Pamlico	10,398	11,372	12,934	13.7%	24.4%
Region	168,761	193,235	214,537	11.0%	27.1%

Source: Bureau of the Census

During the 1990s, Pamlico County saw the largest percentage growth of population in the region. The county's 13.7% population increase was influenced by the location of the Pamlico Corrections Facility near Bayboro. Nearly 600 people included in the population increase of 1,562 were institutionalized at the facility.

1.1.1.2 County growth areas

Table 2 shows population changes within the townships and incorporated areas of the county during the 1990s. During this period, the permanent population grew by 1,526 persons, or 13.7%. In terms of permanent population, the area along NC 55 between Alliance and Olympia was the fastest growing area. The water oriented areas in Townships 2 and 5

gained significant population during the decade. Even with the availability of central water and sewer services in much of its area, Township sustained a population loss of more than 13%.

A 1990-2000 Population Growth Map illustrates these growth trends.

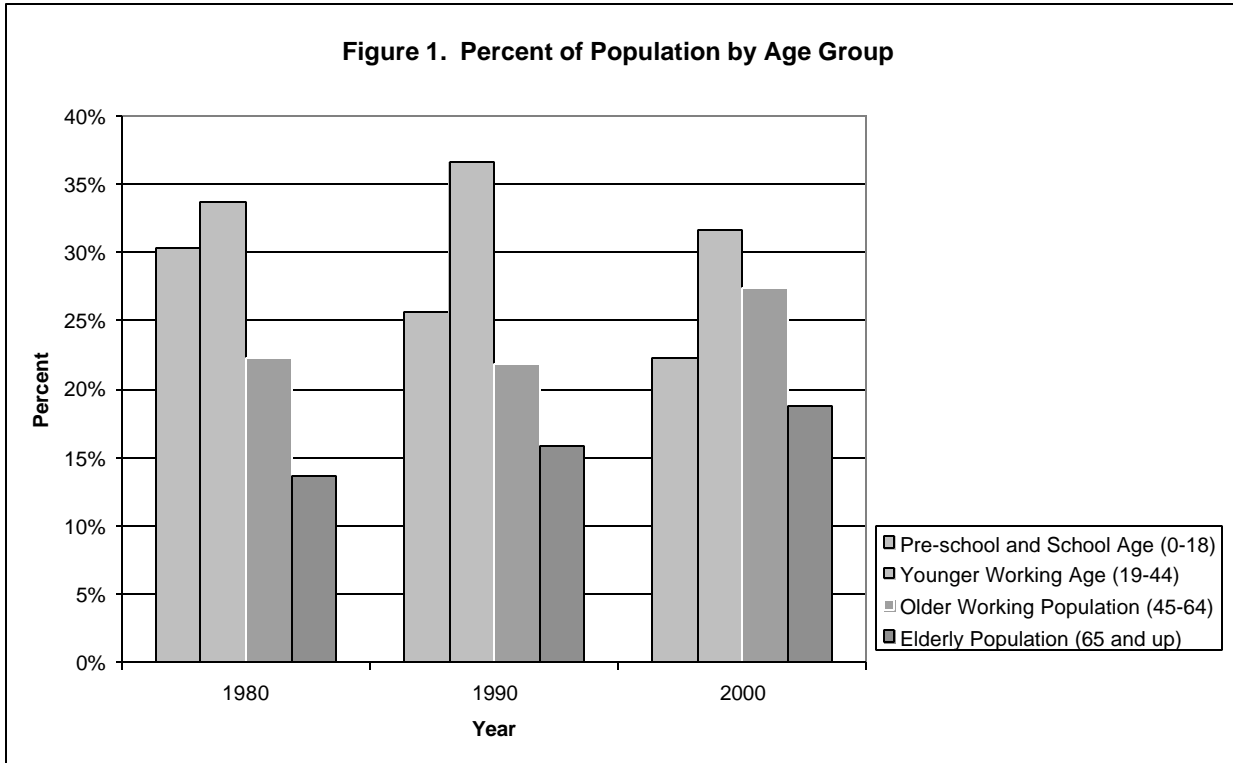
Table 2
Population Growth in Townships and Incorporated Areas, 1990-2000

County Subdivision	Total Population		%Change
	1990	2000	1990-2000
Township 1	2,903	3,511	20.9%
Grantsboro	-	754	-
Alliance (part)	-	-	-
Township 2	2,479	2,802	13.0%
Oriental	786	875	11.3%
Stonewall	279	285	2.2%
Township 3	2,350	2,832	20.5%
Bayboro	733	741	1.1%
Alliance (part)	583	785	34.6%
Township 4	1,534	1,329	-13.4%
Mesic	310	257	-17.1%
Hollyville	102	(Inactive town)	
Vandemere	299	289	-3.3%
Township 5	2,106	2,460	16.8%
Arapahoe	430	436	1.4%
Minnesott Beach	266	310	16.5%
Total incorporated area	3,788	4,732	24.9%
Total unincorporated area	7,584	8,202	8.1%
County total	11,372	12,934	13.7%

Source: Bureau of the Census; NC State Data Center

1.1.2 Population age characteristics

Figure 1, which is based on data from the Census, shows the relative changes in the county's population age characteristics over the past 2 decades. The figure illustrates the following trends:



- The older population's share of the total increased significantly over the 20-year period. Most attribute the increase in older population to in-migration of older adults for retirement. Serving the growing retirement population will affect land use and development patterns in the county – need for more convenience and retail shopping, more personal and professional services, more entertainment, and so on.
- The older working population percent of total increased between 1980 and 2000. Aging of the working age population may account for this increase.
- The younger working age population percent of total declined between 1980 and 2000. This decline may reflect the overall job market in the county.
- The percent of pre-school and school age population declined steadily over the 20-year period. This trend is linked to growth of older population and increase in the number of younger working families with no children.

1.1.3 Income characteristics

Table 3 traces the county's major income characteristics over the past two decades. The table shows both an increase in the median family income and a decline in the percent of families in poverty.

Using the state as a benchmark, the county's median income is lower than the state and the percent of families is higher. However during the 1990s, the county's median income gained significantly on the state median. In 1990, the county median income was 83% of the state's median; in 2000, the county's median was 90% of the state. During this same period, the percent of county families declined from 15.8% to 11.7%.

Table 3
County Income Characteristics, 1980-2000

	Median Family Income			Percent of Total Families in Poverty		
	1980	1990	2000	1980	1990	2000
NC	\$16792	\$31548	\$46335	11.6%	9.9%	9.1%
Pamlico Co.	\$14509	\$26168	\$41659	17.5%	15.8%	11.7%

Source: NC State Data Center

1.2 Housing

1.2.1 Housing characteristics

Table 4 provides an overview of the characteristics of Pamlico County's housing stock. It shows that the growth in total housing units during the 1990s tracked changes in the total population – an increase of 12% in total units.

During the past decade, the number and percentage of housing units classified as seasonal showed a sharp decline. After a major increase during the 1980s, the number of seasonal units declined from 1,354 in 1990 to 946 in 2000 – 30%. This decline in seasonal units is coupled with a steep increase in the number and percent of vacant units. It is possible that units maintained for seasonal use were mistakenly classified as vacant. Like most rural communities, owners occupy a large percentage of the permanent units – 82%.

The average size of Pamlico households continues to decline. In 2000, the average household had 2.38 persons. Decline in household size is expected to continue.

Table 4
Housing Characteristics
Permanent/Seasonal Units-Occupancy-Tenure-Household Size

				Percent Change		
	1980	1990	2000	1980-1990	1990-2000	1980-2000
Total housing units	5,011	6,050	6,781	21%	12%	35%
Permanent housing units	4,044	4,696	5,178	16%	10%	28%
Occupied units	3,678	4,523	5,178	23%	14%	41%
Vacant units	366	173	623	-53%	260%	70%
Seasonal units	967	1,354	946	40%	-30%	-2%
Owner units	3,064	3,667	4,253	20%	16%	39%
Renter units	614	856	925	39%	8%	51%
Average household size (persons)	2.82	2.48	2.38	-12%	-4%	-16%

Sources: 1992 CAMA Land Use Plan; Bureau of the Census

1.2.2 Housing types

Table 5 shows the types of housing units that make up the county's housing stock. Sixty-five (65) percent of the county's houses are single-family, detached. Mobile homes, at 31%, make up the next largest type of housing. Duplexes and multifamily units make up a very small percentage of the housing stock.

Table 5
Types of Units

Units in structure	1990	1990%	2000	2000%
Single-family, detached	3878	64.1%	4446	65.6%
2 units	36	0.6%	43	0.6%
3 or 4 units	23	0.4%	47	0.7%
5 to 9 units	63	1.0%	82	1.2%
10 to 19 units	4	0.1%	7	0.1%
20 units >	0	0.0%	7	0.1%
Mobile homes	1973	32.6%	2117	31.2%
Other	73	1.2%	32	0.5%
	6050	100.0%	6781	100.0%

Sources: 1992 CAMA Land Use Plan; Bureau of the Census

1.2.3 Building permits

Table 6 tracks the number, type, and value of residential building permits in the county from 2000 and 2002. It provides a basis for updating the housing stock data available from the 2000 Census.

During the 3-year period, the county added 158 traditional housing units and 376 mobile homes. According to building inspections staff, a significant number of the mobile homes are replacements for homes lost during Hurricane Floyd in 1999. The exact number of replacements cannot be determined; however, it is assumed to be approximately 45 to 50 units, if the number of permits issued in 2001 and 2002 is "typical."

**Table 6
Housing Units since 2000
Building Permits for New Units**

	2000		2001		2002		2000-02	
	No. Units	Total Value (\$000)	Number of Units	Total Value (\$000)	Number of Units	Total Value (\$000)	Number of Units	Total Value (\$000)
Permits for New Residences								
Total Permits for New Residences	56	\$9,191	51	\$8,143	51	\$7,223	158	\$24,557
Type of Structure								
Single-family	56	\$9,191	51	\$8,143	49	\$7,080	156	\$24,414
Duplex	0	\$ -	0	\$ -	2	\$ 142,	2	\$142
Multi-family	0	0	0	0	0	0	0	0
Mobile homes	155	-	104	-	117	-	376	-
Total Commercial Structures	6	-	1	-	2	-	9	-
Permits for Demolitions								
Residential Units	2						2	
Commercial Structures	2						2	

Source: Census Bureau; Pamlico County Inspections

The 2000-2002 Building Permit map shows the approximate location a number of the building permits. County street data, which is currently being updated, does not show all of the new streets on which permits have been issued. The map does illustrate the building and development trend occurring in the southeastern area.

1.3 Current estimates and projections of permanent and seasonal population

Table 7 shows estimates of the county's current permanent, seasonal, and peak population components and projections to 2023. Each of these estimates and projections is discussed briefly below.

1.3.1 Current population estimate

Permanent population. The county's 2003 population estimate is 13,200. This estimate is based on official state estimates for 2001 and 2002 and the number of housing units added since the 2000 Census.

Seasonal population. Seasonal population includes persons who temporarily reside in Pamlico County on weekends, during the summer, or other times of the year. These temporary visitors occupy motel rooms, campsites, boat slips, and private rental units.

The estimate of seasonal population is based on a ratio of seasonal population to permanent population that was established in the 1992 land use plan after a detailed analysis of components – persons in seasonal units, motels, boats, and campsites. Due to the uncertainty about the number of seasonal housing units – the major seasonal accommodation, the ratio approach will provide the most accurate estimate.

The ratio is 0.45 seasonal visitors for every permanent resident. Thus, the 2003 estimate of seasonal population is 5,940.

Peak population. Peak population is the total of permanent and seasonal population. In 2003, it is estimated at 19,140.

1.3.2 Population projections

The NC State Data Center is recognized as an accurate source of population projections for counties and their projections for Pamlico County to 2023 are shown in Table 7. These projections show the county's population growing from 13,200 in 2003 to 15,400 in 2023, which is an increase of 2,200 persons. This is an average annual growth rate of less than 1%. The same seasonal-permanent population ratio of 0.45 is used to estimate seasonal population.

**Table 7
Current Population Estimate and Population Projections, 2003-2023**

Year	Population Forecast			
	State Projection	Rounded	Seasonal Population	Peak Population
2003	13,144	13,200	5,940	19,140
2008	13,884	13,900	6,255	20,155
2013	14,447	14,500	6,525	21,025
2018	14,939	15,000	6,750	21,750
2023	15,309	15,400	6,930	22,330

Sources: NC Data Center; WBFJ

1.4 Local economy

General economic indicators show overall improvement in the county's economy over the last 20 years. Retail sales increased by nearly 200% during the period and, with an increase of 20% in the 1990s, the employed labor force increase outstripped the county's population growth.

The county's per capita income lags behind the 5-county region as a whole. However, the county's incomes are growing and they appear to be growing at a faster pace. Per capita income increased by 48% in the 1980s and 69% in the 1990s. Pamlico's per capita income is gaining slightly on the regional figure. Pamlico's per capita was 70% of the region in 1990; the county's per capita was 72% of the regional in 2000.

Table 8 shows the general economic indicators for Pamlico County.

**Table 8
General Economic Indicators**

Indicator	1980	1990	2000	Percent Change		
				1980-90	1990-2000	1980-2000
Per capita income						

County	\$7,195	\$10,665	\$18,005	48%	69%	150%
Region	n.a.	\$15,395	\$24,702	n.a.	60%	n.a.
Total personal income (\$000)	\$74,910	\$161,923	\$295,081	116%	82%	294%
Gross retail sales (\$000)	\$21,894	\$42,404	\$63,728	94%	50%	191%
Total employed labor force	3,480	3,855	4,612	11%	20%	33%

Sources: 1992 CAMA Land Use Plan; NC State Data Center; Bureau of the Census

1.4.1 How are people employed?

As shown in Table 9, employment in the county changed significantly over the past 20 years. There were sharp declines in the number of workers in the traditional resource-based industries. Farm employment decreased by nearly 60%. More than ½ of the county’s manufacturing jobs were lost in the 1990s.

Jobs in retail trade and general services showed major increases in the 80s and 90s. Retail trade employment was up 139% and service jobs were up 258%. In percentage terms jobs related to real estate are booming. Construction jobs increased 129% in the last 20-years and finance-insurance-real estate increased by 277%.

Table 9 provides details on employment by major industry.

**Table 9
Employment by Major Industry**

	1980	1990	2000	Percent Change		
				1980-90	1990-00	1980-00
Total Employment	3,128	3,855	4,612	23.2%	19.6%	47.4%
Farm employment	341	192	141	-43.7%	-26.6%	-58.7%
Non-Farm employment	2,787	3,663	4,471	31.4%	22.1%	60.4%
Private employment	2,189	2,952	3,563	34.9%	20.7%	62.8%
Agriculture, services, forestry, and fishing	441	364	426	-17.5%	17.0%	-3.4%
Mining	-	-	-	0.0%	0.0%	0.0%
Construction	143	236	328	65.0%	39.0%	129.4%
Manufacturing	533	694	320	30.2%	-53.9%	-40.0%
Transportation, communications, and public utilities	71	124	133	74.6%	7.3%	87.3%
Wholesale trade	292	291	172	-0.3%	-40.9%	-41.1%
Retail trade	307	519	733	69.1%	41.2%	138.8%

Finance, insurance, and real estate	53	160	200	201.9%	25.0%	277.4%
Services	349	564	1,251	61.6%	121.8%	258.5%
Government employment	598	711	908	18.9%	27.7%	51.8%
Federal civilian	25	34	44	36.0%	29.4%	76.0%
Federal military	53	64	55	20.8%	-14.1%	3.8%
State and local	520	613	809	17.9%	32.0%	55.6%

Sources: 1992 CAMA Land Use Plan; NC State Data Center; Bureau of Economic Analysis

1.4.2 Where do people earn wages and salaries?

Table 10 shows wages and salaries by industry category between 1980 and 2000. Total farm earning tracked farm employment during the 90s – nearly 30% decrease. In the private employment category for the 1990-2000 decade, construction, services, and finance-insurance-real estate showed major increases of 378%, 638%, and 3,640% respectively. These increases are related to the number of employees in the category as well as the earnings per employee.

Table 10
Wages and Salaries by Major Industry
(\$000)

Source of Personal Earnings	1980	1990	2000	Percent Change		
				1980-90	1990-00	1980-00
Farm earnings	\$ 2,435	\$ 3,910	\$ 2,740	60.6%	-29.9%	12.5%
Non-Farm earnings	\$ 27,722	\$ 50,781	\$ 106,525	83.2%	109.8%	284.3%
Private earnings	\$ 22,149	\$ 37,297	\$ 80,873	68.4%	116.8%	265.1%
Agriculture services, forestry, and fishing	\$ 7,191	\$ 3,160	\$ 4,155	-56.1%	31.5%	-42.2%
Mining	\$ -	\$ -	\$ -	0.0%	0.0%	0.0%
Construction	\$ 2,230	\$ 3,947	\$ 10,657	77.0%	170.0%	377.9%
Manufacturing	\$ 3,455	\$ 9,235	\$ 6,629	167.3%	-28.2%	91.9%
Transportation, communications, and public utilities	\$ 850	\$ 2,616	\$ 3,655	207.8%	39.7%	330.0%
Wholesale trade	\$ 1,718	\$ 4,796	\$ 2,539	179.2%	-47.1%	47.8%
Retail trade	\$ 3,217	\$ 5,822	\$ 10,224	81.0%	75.6%	217.8%
Finance, insurance, and real estate	\$ 575	\$ 1,531	\$ 21,507	166.3%	1304.8%	3640.3%
Services	\$ 2,913	\$ 6,190	\$ 21,507	112.5%	247.4%	638.3%
Government earnings						
Federal civilian	\$ 351	\$ 924	\$ 1,683	163.2%	82.1%	379.5%
Federal military	\$ 367	\$ 867	\$ 1,267	136.2%	46.1%	245.2%
State and local	\$ 4,855	\$ 11,693	\$ 22,702	140.8%	94.2%	367.6%

Sources: 1992 CAMA Land Use Plan; NC State Data Center; Bureau of Economic Analysis

1.4.3 Changes in agriculture

Table 11 shows the changes in Pamlico County's agriculture over the last 15 years. After steady increases between 1987 and 1997, harvested cropland declined from 47,000 acres to 41,000 acres from 1997 to 2000. This is a decrease of nearly 13% in 3 years. Recent information from the Natural Resources Conservation Service indicates that there are currently 35,000 acres of cropland in the county.

Changes in the structure of farming are also evident. Total farms declined by 18% between 1992 and 1997 (most recent year for which information is available). During the same period, the average size of farms increased by nearly 40%, from 537 acres to 750 acres.

The continuing decline in farm employment and personal income from farming was noted in the previous 2 sections.

Table 11
Changes in Pamlico County Agriculture

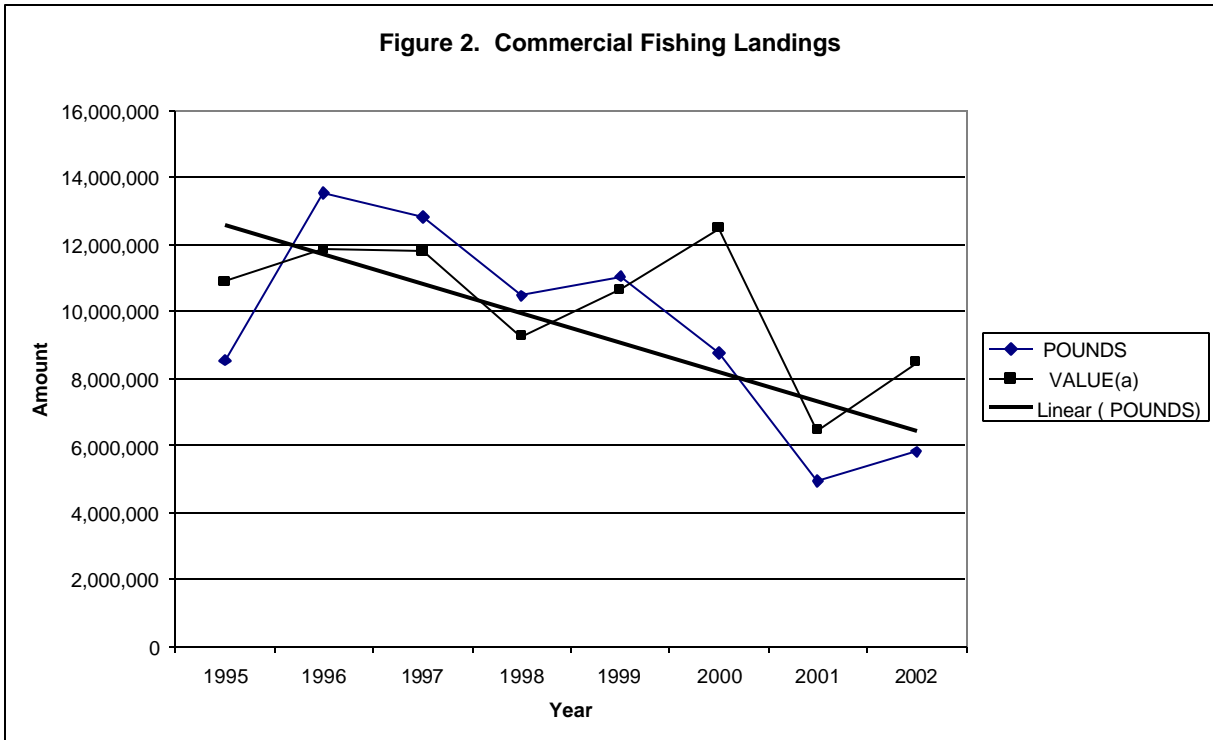
	1987	1992	1997	2000	1987-92	1992-97	1997-00
Harvested cropland (acres)	31,000	35,535	47,000	41,000	14.6%	32.3%	-12.8%
Number of farms	86	82	67	n.a.	-4.7%	-18.3%	n.a.
Average farm size (acres)	445	537	750	n.a.	20.7%	39.7%	n.a.
Total personal farm income (000)	\$ 2,957	\$ 3,065	\$ 4,371	\$ 2,740	3.7%	42.6%	-37.3%

Source: NC State Data Center; Census of Agriculture

1.4.4 State of commercial fishing

Figure 2 shows the trend in the amount (pounds) and value of commercial fish landings from 1995 through 2002 based on data supplied by the NC Marine Fisheries Division. While both of these indicators vary from year to year, the overall trend is down. The conventional thinking may be that the decline is related to local resources. However, fisheries regulations may have a significant share of the impact.

Changes in this industry could have a major direct impact on land uses. It could also have a secondary impact on the growth of Pamlico's second home and retirement economy.



Section II Natural Systems Analysis

This section provides a description of Pamlico County's natural environment and its suitability of limitations for development. The section contains 3 parts:

- 1) A summary of the inventory and description of major natural features and systems;
- 2) An analysis of the environmental capability of each of the major systems and/or features; and
- 3) A description of the county's environmental conditions, which focuses on water quality and natural, hazards.

The inventory of natural systems addresses the topics outlined in the CAMA land use planning guidelines. These topics are listed below:

Inventory of Natural Systems

Areas of Environmental Concern
Soil characteristics – septic tank limitations
Water quality classifications
Natural hazard areas
Storm surge areas
Non-coastal wetlands
Primary nursery areas
Environmentally fragile areas

These systems and their management principles are summarized in Table 12.

The planning guidelines also require a composite natural systems map that shows the extent and overlap of major natural systems and a determination of the capabilities or limitations of the features for development. Table 13 shows the development capabilities and limitations of the county's natural features.

2.1 Natural systems inventory

2.1.1 AEC-Estuarine waters

The county's estuarine water AEC includes the waters and tributaries of the

Neuse River, the Pamlico River, and the Bay River and the Pamlico Sound. These estuaries comprise a significant area in the county:

Neuse River	42,000 acres
Pamlico River	11,300 acres
Bay River	14,200 acres
Pamlico Sound	70,000 acres

Use of the county’s estuarine waters is limited land uses that will not damage their value and that require water access and cannot function elsewhere.

Map 3 shows the county’s estuarine waters.

2.1.1.1 DWQ surface water classifications

The county’s estuarine waters have a range of primary and supplemental classifications. These are shown below:

- SA HQW
- SA HQW NSW
- SB Sw NSW
- SC HQW NSW
- SC NSW
- SC Sw HQW NSW
- SC Sw NSW
- SC Sw NSW HQW

Each of these classifications is described in the following table:

DWQ Primary Saltwater Classifications	
Class SC	All tidal salt waters protected for secondary recreation such as fishing, boating and other activities involving minimal skin contact; aquatic life propagation and survival; and wildlife. Stormwater controls are required and there are no categorical restrictions on discharges.

Class SB	Surface waters that are used for primary recreation, including frequent or organized swimming and all SC uses. Stormwater controls are required under and there are no categorical restrictions on discharges.
Class SA	Surface waters that are used for shellfishing or marketing purposes and all SC and SB uses. All SA waters are also HQW by definition. Stormwater controls are required. No domestic discharges are permitted in these waters.
DWQ SUPPLEMENTAL CLASSIFICATIONS. Supplemental classifications are sometimes added by DWQ to the primary classifications to provide additional protection to waters with special uses or values.	
High Quality Waters (HQW)	Supplemental classification intended to protect waters with quality higher than state water quality standards. In general, there are two means by which a water body may be classified as HQW. They may be HQW by definition or they may qualify for HQW and then be supplementally classified as HQW through the rule-making process. The following are HQW by definition: SA (shellfishing), ORW Waters designated as Primary Nursery Areas or other functional nursery areas
Nutrient Sensitive Waters (NSW)	Supplemental classification intended for waters needing additional nutrient management due to their being subject to excessive growth of microscopic or macroscopic vegetation. In general, management strategies for point and non-point source pollution control require control of nutrients (nitrogen and/or phosphorus usually) such that excessive growths of vegetation are reduced or prevented and there is no increase in nutrients over target levels. Management strategies are site-specific.
Swamp Waters (Sw)	Supplemental classification intended to recognize those waters that generally have naturally occurring very low velocities, low pH and low dissolved oxygen. No specific restrictions on discharge types or development are involved.
Primary Nursery Areas (PNA)	PNAs are located in the upper portions of creeks and bays. These areas are usually shallow with soft muddy bottoms and surrounded by marshes and wetlands. Low salinity and the abundance of food in these areas is ideal for young fish and shellfish. To protect juveniles, many commercial fishing activities are prohibited in these waters; including the use of trawl nets, seine nets, dredges or any mechanical methods used for taking clams or oysters. If a violator is caught in a Primary Nursery Area, he is faced with a very substantial penalty.

The Estuarine System Map also shows the use classification of the county's estuarine waters.

2.1.1.2 Primary nursery areas

Primary nursery areas (PNAs), which are described in the table above, are also shown on the Estuarine System Map. The PNAs are located in the upper reaches

of the county's creeks and bays and are concentrated in the northeastern and eastern areas. There are more than 13,000 acres of PNAs in the county.

2.1.2 AEC-Estuarine Shoreline

The estuarine shoreline is a band of dry land that extends landward from the normal high water a distance of 75 feet. This shoreline area is considered especially vulnerable to erosion, the adverse effects of wind and water, and it is intimately connected to the county's estuaries. Uses in this area can have a major impact on water quality and the productivity of the estuary.

Key guidelines for uses in this area include the following:

- Should not weaken or eliminate natural barriers to erosion;
- Limit impervious surfaces to the amount necessary to support the use – may not exceed 30% of the AEC area; and
- Twenty-five foot buffer zone from margin of the estuarine water must be provided and maintained.

Current county policy establishes a permanent 75-foot buffer from estuarine and public trust waters. Most development or construction activities are limited within this area.

Due to map scale limitations, it is difficult to map the estuarine shoreline: however, Figure 3 illustrates this feature.

2.1.3 AEC-Coastal Wetlands

Coastal wetlands are defined as "any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides..." This definition does not include flooding by tides associated with hurricanes or tropical storms.

Coastal wetlands perform a variety of valuable functions:

- Provide decayed plant material and nutrients that support complex food chains in the estuaries.
- Support 90% of the state's commercial fish and shellfish catch.
- Provide high quality habitat for waterfowl and wildlife.
- Act as barriers against flood damage and control erosion between the estuaries and uplands.

- Act as a trap for nutrients, sediment, and pollutants and help maintain estuarine water quality.

In the management of coastal wetlands the highest priority is given to conservation; second priority is given to water dependent uses that require access and that cannot be located elsewhere.

Pamlico has approximately 21,700 acres of coastal wetlands. They are concentrated in four areas:

- Northeastern area on Goose Creek Island and along the lower Pamlico River and the Pamlico Sound;
- Along Bay River and its tributaries;
- Along the lower Neuse River at the Pamlico Sound and the creeks to the north; and
- Creeks along the Neuse between Oriental and the county line.

The location of coastal wetlands is shown on the Coastal and Non-coastal Wetland Map.

2.1.4 Soil suitability for septic tanks

According to the Pamlico County Soil Survey compiled by the SCS (now NRCS) in 1984, most soils in Pamlico County have severe limitations for traditional on-site soil absorption waste treatment systems. Three soil types are classified as having *moderate* or *slight* limitations for septic tanks. These include Alpin fine sand, Conetoe loamy sand, and Norfolk loamy fine sand. There are approximately 3,800 acres in the county with these soil types.

The location of soils with moderate or slight limitations are shown on the Soil Suitability Map. These soils are concentrated in the southwestern area generally between Minnesott Beach-Araphoe and the NC 55-Reelsboro area.

With the exception of the areas noted, planned development densities in areas not served by central sewer should be very low to account for soil limitations.

All determinations regarding septic suitability must be made after on-site investigations. The soil information presented here is for general planning purposes only.

2.1.5 Natural hazards

2.1.5.1 Flood hazard areas

The 100-year flood plain is the accepted benchmark for defining flood hazard. In Pamlico County, the 100-flood plain is mapped in two categories: the **A** zones are areas where there is a 1% chance of flooding in any year and the **V** zones where there is a 1% chance of flooding that includes wave action.

The **V** zones form a narrow band in the low-lying area along the lower Neuse and the Pamlico Sound. These V zones present particular hazards to life and property. The **A** zones include extensive areas adjacent to the county’s rivers and creeks and the Sound.

According to mapping from DCM, the county’s **A** zones total 137,000 acres and the **V** zones 54,000 acres.

The county participates in the Federal Flood Insurance Program and enforces a flood-damage prevention ordinance.

2.1.5.2 Storm surge

As expected, extensive areas of the county are vulnerable to surge hazards associated with hurricane level storms. Depending on the level or severity of the storm, as much as 75% of the land area in the county may be impacted. The following describes the approximate areas that may be impacted by various storm levels.

- **Category 1 to 2 storms**– all of eastern Pamlico to west of NC 55 between Bayboro and Oriental and north of NC 304 from Bayboro to Mesic; area along Broad and Goose Creeks on the Neuse River.
- **Category 3 storm** – the areas described above plus large areas north of NC 55 between NC 304 and 306, and a large area adjacent to the Light Ground Pocosin.
- **Category 4 and 5 storms** – the areas described above plus large areas between the Bay City Pocosin and NC 306 and areas within the Light Ground Pocosin.

The extent of the impact in acres is shown below:

Storm level	Approximate Cumulative Acres Impacted
1 to 2	115,000 acres
3	140,000 acres
4 to 5	163,000 acres

The county’s approximate flood hazard areas and areas that may be impacted by hurricane storm surge are shown on the Natural Hazards map.

2.1.6 Non-coastal wetlands

The U.S. Army Corps of Engineers defines *wetlands* as “those areas that are inundated or saturated by surface or ground water at a frequency or duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”¹ It is generally agreed that wetlands have significant values that support the unique lifestyle enjoyed by residents of the coastal area. These values include the following:

- **Water storage**— wetlands are able to temporarily store heavy rain, surface runoff, and floodwaters, and thereby, reduce downstream flooding.
- **Shoreline stabilization**— ground cover and roots of wetland plants help hold soils in place and prevent sedimentation and nutrient transport to the creeks, rivers, and sounds.
- **Water quality**— wetland plants can enhance water quality by removing pollutants from surface runoff.
- **Wildlife and aquatic life habitat**— the variety of plants, hydrologic and soil conditions associated with wetlands provide abundant food and cover for animal populations and support a number of rare and endangered plants.
- **Recreation and education**— the rich array of plants and animals supported by wetlands provide significant consumptive and non-consumptive use values – hunting and fishing, bird watching, canoeing, etc.²

As shown on the wetlands map, areas that may be classified as non-coastal wetlands are extensive in the county. According to this mapping provided by

¹ US Army Corps of Engineers, *Wetlands Delineation Manual*

² NC Department of Environment, Health, and Natural Resources, *A Field Guide to North Carolina Wetlands*, 1994.

DCM, there are 98,600 acres in the county that potentially could be classed as non-coastal wetlands. This is nearly 45% of the county's land area.

2.1.7 Fragile areas

The Fragile Areas Map shows several areas in the county that the NC Natural Heritage Program has identified as "elements of natural diversity." These elements include "those plants and animals which are so rare or the natural communities which are so significant that they merit special attention as land use decisions are made."

Most of these natural heritage elements are privately owned; however, the Goose Creek Gamelands located on Goose Creek Island are owned and managed by the Wildlife Resources Commission.

2.2 Composite environmental map

The Composite Map of Environmental Conditions, which is located on the following page, shows the extent and overlap of the environmental features described in this section. Using the limitations and opportunities that the features have for development as a guide, the map shows the location of the following three categories of land:

Class I – land containing only minimal hazards and limitations that may be addressed by commonly accepted land planning and development practices;

Class II – land containing development hazards and limitations that may be addressed by methods such as restrictions on types of land uses; special site planning; or the provision of public services; and

Class III – land containing serious hazards for development or lands where the impact of development may cause serious damage to the functions of natural systems.

Table 12 shows the features that are included in each class. Map 8, Composite Natural Features, shows the location of each land class in the county.

**Table 12
Composite Natural Features Table**

	Cls. I	Cls. II	Cls. III
Wetlands			
Coastal wetlands			✓
Non-coastal, exceptional or substantial significance			✓
Non-coastal, beneficial		✓	
Estuarine waters			✓
Estuarine shoreline		✓	
Soil limitations (septic)			
Slight to moderate	✓		
Severe			✓
Hazards			
In 100-year flood (includes ocean hazard AECs)		✓	
In storm surge area		✓	
Water quality			
ORW watersheds		✓	
HQW watersheds		✓	
Wellhead protection areas		✓	
Water supply protection watersheds		✓	
Fragile areas and resources			
Natural heritage areas		✓	
Maritime forests		✓	
Protected open space			✓

Source: WBF1

2.3 Summary environmental conditions

2.3.1 Water quality

The basinwide plans prepared by the NC Division of Water Quality are the source for information related to overall water quality in Pamlico County's estuarine waters. The county's waters are covered in two basinwide plans: the northern area of Goose Creek Island adjacent to the Pamlico River is in the Tar-Pamlico Plan (sub-basin 03-03-07) and the remainder of the county is in the Neuse Plan (sub-basins 03-04-13, 03-04-10, and 03-04-14).

2.3.1.1 Tar-Pamlico

Overall, water quality in the 07 sub-basin appears to be fair: only 27% of the area is classed as *fully supporting* (FS); 67% is classed as *supporting but threatened* (ST); and 8% is classed as *partially supporting* (PS). Four major discharges are permitted in this sub-basin, which contributes to water quality issues. In the lower part of the sub-basin, agriculture is identified as the major source of pollution.

A portion of Goose Creek is closed to shellfishing.

2.3.1.2 Neuse

03-04-10. This sub-basin includes the Neuse River, from the county line to the Minnesott Beach area, and its tributaries, plus the creeks on the north side of the Neuse/Pamlico Sound estuary from NC 306 to Maw Point.

According to the basinwide plan, 53% of the waters are supporting, 32% are partially supporting, and 15% are supporting but threatened. The plan concludes that many of the sub-basin's water quality problems come from upstream sources. Four major dischargers are identified: City of New Bern WWTP, NE Craven Utilities WWTP, USMC Cherry Point WWTP, and the City of Havelock WWTP.

Summer phytoplankton blooms are a problem. Most occur in the upper area of the river from the county line to the Minnesott Beach area. Fish kills are also reported in this area.

The entire area above Minnesott Beach is closed to shellfishing because the DEHSSS program does not monitor the area due to the absence of commercially important shellfish.

Dawsons Creek, Greens Creek, and Whittakers Creek are closed to shellfishing; the upper reaches of Pierce Creek, Orchard Creek, Gum Thicket Creek, and Broad Creek are closed. These closures are due to high coliform counts that are generally associated with runoff.

03-04-13. This sub-basin includes the Bay River and its tributaries and Jones Bay. This sub-basin has generally good water quality. However, there are periodic instances of elevated coliforms, nutrients, and chlorophyll, which are associated with high rainfall and runoff.

The Sanitary Report prepared by the Shellfish Sanitation Section indicates that 2,853 acres are closed to shellfishing. These closures are due to elevated coliform bacteria.

2.3.2 Shellfish growing areas

The county has 5 shellfish growing areas designated by the NC Shellfish Sanitation Division. These growing areas are described below:

- F-1 Dawson Creek area and the adjacent waters of the Neuse River. This is the smallest growing area in the county.
- F-5 Area on the north side of the Neuse River from Greens Creek near Oriental to Maw Point. It includes Orchard Creek, Broad Creek, Gum Thicket Creek, and Whittakers Creek.
- F-6 Bay River and its tributaries plus Jones Bay, Fishing Bay, and Porpoise Bay.
- G-1,2 Goose Creek, Oyster Creek, Middle Prong Creek, Mouse Harbor, and Porpoise Bay on the lower Pamlico River.

Table 13 summarizes information on these growing areas from the most recent Shellfish Sanitation Survey prepared by the Shellfish Sanitation Division. From the survey information, areas F-5 and F-6 appear to have the most issues related to water quality. Growing number of small boat docks and runoff from residential development impacts water quality in F-5. Water quality in F-6 is impacted by runoff from farming.

Table 13
Conditions in Pamlico County Shellfish Growing Areas

Grow- ing Area	Total area (ac)	Total area closed (ac)	Description and Sources of Pollution
F-1	1,404 (in Pam- lico Co.)	1,404	Oyster production is poor; no commercial clams. Overall commercial value of the growing area is poor. Most significant source of pollution is runoff from farming. Sediment from cropland can impact growing area. Some improvement in water quality at the mouth of Dawson Creek noted in the survey.

F-5	19,000	1,411	<p>Oyster production in this area is fair; no commercial clams. Overall commercial shellfish value of the area is poor.</p> <p>Survey indicates a continued deterioration of water quality in the area. Proliferation of small docks and continued development and associated runoff may contribute to water quality decline.</p>
F-6	20,000	2,853	<p>Oyster production is fair to poor; there is no commercial clam production.</p> <p>An appreciable degradation in water quality since the last survey was noted. Agriculture is the most significant source of pollution and runoff contributes to fecal coliform loads. Runoff from storms reduced salinity and may have contributed to high fecal counts.</p> <p>The survey recommends additional closures in Newton Creek.</p>
G-1 G-2	17,000 29,000	300 350	<p>Commercial shellfish value of G-1 is very poor; value of G-2 is poor to fair.</p> <p>Water quality in the Pamlico Co. portion of these areas is generally good.</p> <p>No significant sources of pollution are noted.</p>

Source: Report of Sanitary Surveys, F-1, F-5, F-6, and G-1&2, NC Shellfish Sanitation Section, 2000-2002.

A map of closed shellfish growing areas is located on the following page.

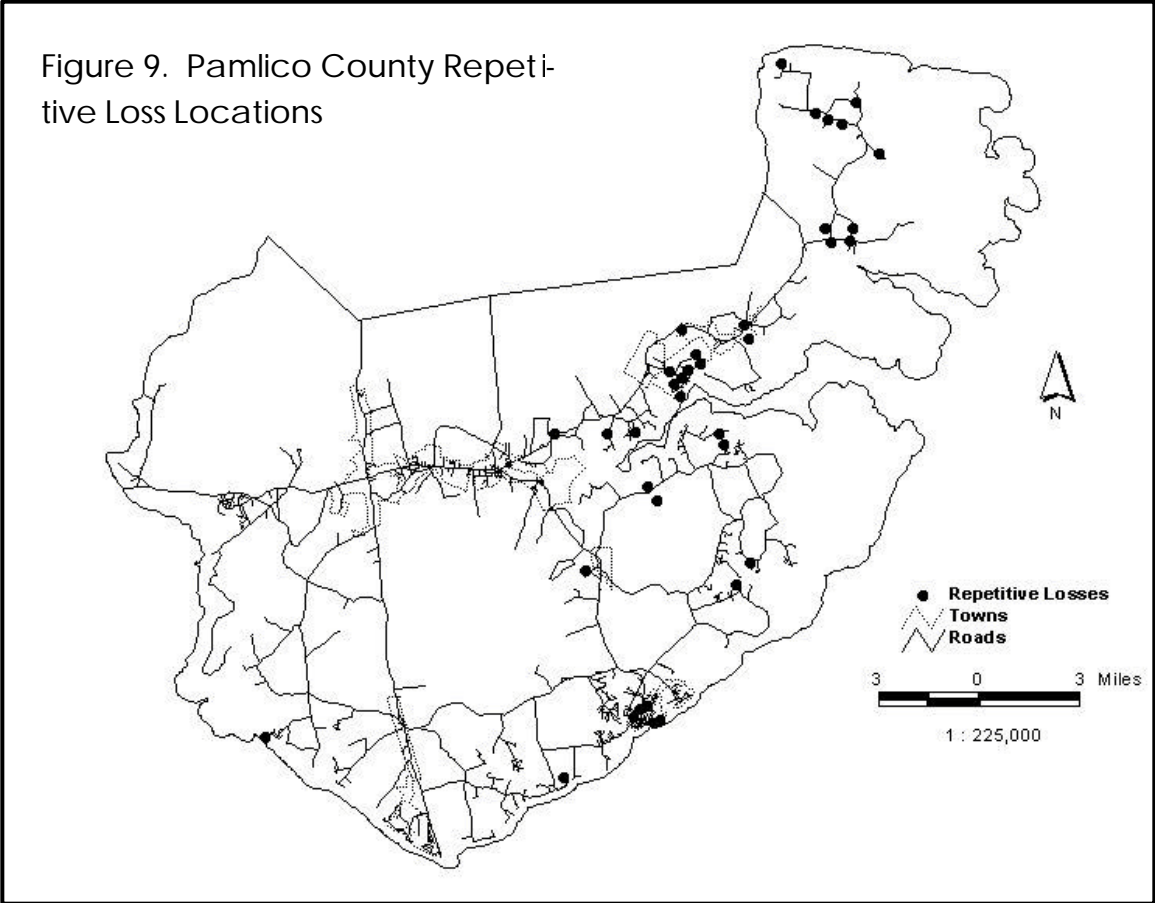
2.3.3 Impact of flooding

Data on Pamlico County's Federal Flood Insurance Program is an indicator of the impact of storms and flooding on the county. According to information from the county's draft Hazard Mitigation Plan, there are approximately 1,600 flood insurance policies in force in the county, as of February 1, 2002. Over the past 10 years, there have been 635 paid losses related to flood damage.

There are 43 buildings in the county that have sustained repetitive losses, 2 or more claims, over the past 10 years. Figure 9 shows the general location of the county's repetitive losses. The repetitive losses are concentrated in 3 areas: Goose Creek Island, Mesic-Vandemere, and Oriental. Both flood hazard and

storm surge areas heavily impact these communities. In addition, these communities include some of the county's older housing that may have been built prior to implementation of standards and guidelines to reduce the risk of damage from flooding.

The county is in the process of preparing and adopting a Hazard Mitigation Plan that will include policies to address risks from flood and to reduce repetitive losses.



Section III Analysis of Existing Land Use and Development

This section provides a “snap shot” of the current situation in the county with respect to how the land is currently used and what development trends are emerging. It provides a base for projecting the community’s future land need and for forecasting the future location of development. The section includes a map that represents a survey of existing land uses; an assessment of emerging development patterns; a table that evaluates existing land use; and a forecast of future land needs.

3.1 Description and analysis of existing land use

The Existing Land Use Map, which is located on the following page, shows the generalized patterns of existing land use in the county. The map reinforces many of the land use trends that were identified in the 1992 land use plan.

New development tends to concentrate in two areas. The western area of the county along NC 55 between Alliance and Olympia is the fastest growing area of the county. The newly incorporated Town of Grantsboro is one result of this trend. In addition, sewer services are being extended to the Reelsboro area to meet existing and future needs. Conventional thought is that families locating in this area reside in Pamlico County but many work outside of the county. Typical lot sizes in this area are 0.75-1.0 acres.

Second home and retirement develop focuses in the southeastern area of the county where it takes advantage of extensive waterfront resources. Much of this development is lower density, with typical lot sizes of 1.0 acre or greater. Even though this area experiences a significant amount of subdivision of land and construction of homes, sewer services are not yet available.

Commercial, retail, services, and limited industrial uses along with higher density residential uses are still concentrated in the county’s incorporated areas and rural communities.

Strip commercial development along NC 55 remains a concern. Steps are underway to widen this highway to four lanes. However, unless measures are

taken to reduce unrestricted access, the new highway's traffic capacity will be quickly compromised.

The northeastern area of the county, even with the availability of water and sewer services and relatively undeveloped waterfront, actually lost population between 1990 and 2000. Some of this loss may be attributed to damage to homes and other structures from the 1990s storms. However, the area clearly has not attracted the second home and retirement development occurring in other parts of the county.

Incompatible land uses are a concern in the northeastern area. Several auto-wrecking yards impact the appearance of the area, and those that are located near streams may have an impact on water quality.

A map of cropland and forestland, not included in this report, was prepared to show the general location of cropland and forestland in the county. The information on this map is taken from satellite images available from the NC Center for Geographic Information and Analysis.

This map shows that farming activities are concentrated in the northern area of the county, between NC 306 and NC 304; the southeastern area, generally along NC 55; and the Arapahoe-Minnesott area, east of NC 306. This map identifies a total of 38,600 acres of cropland.

Forested area is estimated at 98,000 acres. This estimate does not include areas that may be classified as shrubland, marshland, and the like.

The county has nearly 2,000 acres classified as Public and Institutional uses. This is a relatively high number of acres in this classification, which is accounted for by the large number of camps and the land devoted to wastewater treatment.

Table 14 summarizes the county's existing land uses.

Table 14
Analysis of Existing Land Uses

Land Use	Approximate Acreage	Rounded	Percent of Total Acres	Percent of Developed Land
Residential	5,225	5,200	2.4%	66.7%
Commercial/Industrial	683	700	0.3%	9.0%
Public and Institutional			0.9%	24.4%

Land Use	Approximate Acreage	Rounded	Percent of Total Acres	Percent of Developed Land
	1,862	1,900		
Sub total - developed land	7,770	7,800	3.5%	na
Agricultural or Open Land	38,600	38,600	17.5%	na
Forestry and Wooded Land	98,000	98,000	44.5%	na
Other	75,630	75,600	34.4%	na
Total	220,000	220,000	100.0%	na

Sources: WBFI; Pamlico County Tax Land Records

3.2 Land needs forecast

Table 15 shows the estimates of future land needs for the county. These estimates are based on the population projections (permanent and seasonal) in Section I and the likely patterns of land use. Generally, commercial and public/institutional uses follow residential uses, so the estimates for these two categories are based on current ratios to residential uses.

According to these estimates, approximately 1,600 acres of land will be required to accommodate the projected increase in permanent and seasonal population.

Table 15
Estimate of Future Land Needs for Residential, Commercial, and Public/Institutional Uses

	2008	2013	2018	2023	2008-2023
Projected county population	13,900	14,400	14,900	15,300	1,400
Permanent population increase	800	500	500	400	2,200
Additional permanent households	364	227	227	182	1,000
Additional seasonal population in residential units (75%)	270	169	169	135	743
Additional seasonal households (3.5 per-	77	48	48	39	212

	2008	2013	2018	2023	2008-2023
sons/unit)					
Total additional households	347	217	217	174	1,212
Estimate residential gross acres/household	1.15	1.15	1.15	1.15	n.a.
Estimated Land Needs					
Net residential acres required for growth	399	250	250	200	1,098
Rounded	400	300	300	200	1,200
Commercial/ Industrial (13.5% of residential)	54	27	27	27	135
Rounded	50	30	30	30	140
Public and Institutional (36.5% of residential)	146	73	73	73	365
Rounded	150	70	70	70	360

Source: WBF1

Section IV Analysis of Community Facilities

The analysis of community facilities evaluates the existing and planned capacity, location, and adequacy of the county's major infrastructure systems – water, sewer, and highways. The evaluation includes a facilities map that shows present and planned locations. The section also includes information on EPA Phase II stormwater requirements.

4.1 Water

The Pamlico County water system is operated as a department of the county. The system's raw water supply is obtained from a series of 12 wells located throughout the county. The system has treatment plants located at the well sites in Bayboro, Mill Pond Rd., Grantsboro, Kershaw, Minnesott Beach, and Vandemere.

The county has approximately 5,100 metered connections. Of these connections, just over 1% are commercial. According to the water supply plan, Britthaven of Pamlico (nursing home), Camp Seafarer, Pamlico High School, and Camp Caroline are the county's largest water customers.

The system has an existing groundwater supply of 3.3 million gallons per day (MGD). Average daily use (at the time of the most recent water supply plan) is 0.8 MGD, and the department estimates that average daily demand will grow to 1.6 MGD by 2020, which is approximately 48% of supply. This future demand is well below 80% of supply, which is the maximum without adding supply.

The system has approximately 2.1 million gallons of storage.

The water department has some pressure and flow issues in the southeastern area of the county. Plans are being developed to construct additional storage and to connect existing lines to address the issues.

Virtually all primary and secondary roads in the county have water lines. In addition, all of the incorporated areas are served.

4.2 Sewer

The Bay River Metropolitan Sewer District (MSD) was created in the 1980s to address Pamlico County's wastewater collection, treatment, and disposal needs. The MSD purchased the Oriental sewerage system and created a system to serve Bayboro, Alliance, Stonewall, Mesic, and Vandemere. The system was expanded into the Town of Grantsboro and extension of the system into a portion of the Reelsboro area will be complete in 2003-04. The MSD system includes the following major components:

- Oriental collection system – 42,000 linear feet of gravity sewers; 24,000 linear feet of low-pressure sewer force main.
- Bay River collection system – 252,400 linear feet of low-pressure sewer force mains; 79,800 linear feet of small diameter collection lines; and 42,520 linear feet of larger diameter pressure transmission lines.
- Oriental Wastewater Treatment Plant – permitted up to 0.2 MGD and recent flows were 0.146 MGD (73%).
- Bayboro Wastewater Treatment Plant – permitted up to 0.3 MGD and recent flows 0.185 MGD (62%); will be upgraded to accept Reelsboro flows.
- Arapahoe Effluent Spray Site – 500 acres of woodland rated for 0.5 MGD.

The MSD currently serves approximately 2,300 customers, most of which are residential.

Phase I of the Reelsboro expansion, which is currently underway, goes to JC's corner. Phase II will extend further west toward Olympia. There is an area of "good" soils in the Reelsboro area; however, the soils east and west of this area limit the use of septic tanks. The expansion will serve these areas. In addition, the Reelsboro expansion will support the growth and development that is occurring along the NC 55 corridor. The additional wastewater flows from this area require an upgrade of the treatment capacity at the Bayboro wastewater treatment plant. This upgrade is included as a component of the expansion.

The treatment plant at Oriental is at capacity. As noted, the plant is permitted for up to 0.2 MGD and is experiencing flows of 0.146 MGD, which is nearly 75% of capacity.

The MSD is studying alternatives and the feasibility of extending the system into the Florence-Whortonsville-Pamlico area, which has seen much of the county’s retirement and second home growth. A major land development project consisting of 600 housing units and 400 marina slips is proposed for this area. The projected flow for this development at build out is 140,000 gallons per day.

The favored alternative to serve this development includes the following features:

- Use a low-pressure, septic tank effluent pumping system similar to the one in use in the Bayboro system.
- Transmit wastewater from the Whortonsville-Pamlico area to Oriental via a 6” force main. This force main is of sufficient size to serve the Gum Thicket development and some of the nearby existing development, but is not adequate to serve the entire southeastern area. A minimum 10” force main is required to serve the larger area.
- Convert the Oriental treatment plant to a 700 gallons per minute pumping station and pump wastewater from Oriental and the Whortonsville-Pamlico area to a new plant in Bayboro, via a new 10” force main.

The MSD is also at the preliminary stage of evaluating service to Goose Creek Island.

The MSD’s spray field at Arapahoe is rated for up to 0.5 MGD. The upgrade at the Bayboro plant will include a split-stream system that will allow application of 0.125 MGD at the prison site at Bayboro. This will give the MSD a total of 0.625 MGD of disposal capacity.

Table 16, from the MSD feasibility study, shows projected flows for the next 20 years.

Table 16
Projected Wastewater Flows
MSD Expansion

Service Area (Average Daily Flow – Gallons Per Day)	Current (2000)	Initial Year	20 Years
Oriental service area	146,400	148,330	177,340

Pamlico Expansion		35,900	39,180
Whortonsville Expansion		36,900	40,270
Gum Thicket Development		70,000	140,000
Oriental area subtotal	146,400	291,130	396,790
Bayboro area	184,560	187,000	223,560
Reelsboro Area		32,600	139,250
Bayboro Subtotal	184,560	219,600	362,810
Total average daily flow	330,960	510,730	759,600

Source: Pamlico County Wastewater Capacity Analysis and Preliminary Engineering Report, McKim and Creed for Bay River MSD, 2001.

4.3 Highways

According to the current Thoroughfare Plan, the highway network in Pamlico County contains 3 types of roads:

- **Major collectors**, which are intended to provide connections between rural communities and from rural communities to principal arterial roads, such as an interstate or other major facility such as US 70 or US 17. Typically, these are 2-lane facilities that are designed for low speeds and short travel distances. They disperse traffic from the arterial system. Major collectors may also provide access to property. However, preserving traffic capacity should be considered in determining appropriate land uses, frequency of driveway connections and so on.
- **Minor collectors** are designed to collect traffic from local roads and provide access to rural communities or the arterial system via major collectors. Minor collectors may also provide access to property.
- **Local roads** provide basic access to residential and commercial properties and they are connected to major or minor collectors.

The highways included in each of these classifications are described below.

Major collectors

NC 55 from Craven County to Oriental

NC 306 from Beaufort County to Minnesott Beach

Minor collectors

NC 1005 from Reelsboro to Arapahoe

NC 1108 from Scotts Store to NC 306

NC 1005 from Arapahoe to NC 55

NC 1308/1302 from Oriental to Cash Corner to NC 306

NC 304 from Bayboro to NC 33

NC 1230 from Hobucken to Lowland

The rest of the public roads in the county are considered to be local roads.

4.3.1 NC 55 widening

NCDOT is in the process of widening NC 55 to 4 lanes from US 17 in Craven County to NC 304 at Bayboro. Right-of-way acquisition is underway. According to the Transportation Improvement Program, construction contracts for the section from Olympia to Reelsboro section will be let in 2004 and contracts for the Reelsboro to Bayboro section will be let in 2006.

According to information from NCDOT staff, protection of the capacity of the upgraded NC 55 corridor is an important land use plan concern. It takes many years to get such an improvement on the TIP and there are few feasible alternative routes should the facility require upgrading in the future.

4.4 Stormwater management

Pamlico County does not operate a stormwater system. The only systems in the county are ditches dug for mosquito control, side ditches along the road system, and private drainage systems. No mapping on these facilities is available at the present time.

Phase II of the EPA Stormwater program requires some larger communities to apply for permits for their stormwater systems. A community may be under this Phase II program in one of three ways: (1) automatic designation under the Federal rules; (2) designation by the state; and (3) designation by petition of a third party. To date, Pamlico County has not been designated. However, given the county's extensive coastal resources, designation may be possible in the future.

What does designation mean? It means that the county will be required to develop a stormwater plan that is designed to reduce the discharge of pollutants. This plan must include six elements:

1. Education and outreach program to inform citizens how to reduce pollutants in stormwater.
2. Public involvement program that meets state requirements.
3. Detection of illicit discharges.
4. Reduction of runoff pollutants from construction.
5. Reduction of pollutants from new construction or reconstruction that disturbs one acre or more.
6. Pollution prevention/good housekeeping program for local government operations to prevent or reduce pollutant runoff.

Land use plan policies address the major requirements in this list. These policies are included in Section 3.6, page 62.

Section V Land Suitability Analysis

Land suitability analysis is a process for identifying land in the county that is most suitable for development. The analysis is not intended to “rule out” any land or site from development. It is intended to provide information to local decision-makers on land that may have fewer environmental and regulatory restrictions, land where services can be provided at lower cost, or land that is most attractive given its proximity to existing development or to the waterfront areas.

The analysis includes three steps:

- Step 1** Identify factors to be considered – natural constraints, such as wetlands, availability of water and sewer, proximity to existing developed areas.
- Step 2** Estimate a rating for the suitability factors – how suitable is site with a particular factor for development. To aid in the analysis, ratings are assigned numerical scores.
- Step 3** Determine the importance of each factor – 1 for important, 2 for very important, and 3 for essential.

The Steering Committee members were involved in each step of this process.

Table 17 shows the factors that are included in the analysis, the rating assigned to each, and the relative importance of each factor.

**Table 17
Land Suitability Analysis**

Suitability factor	Factor Rating				weight
	not interested	not attractive	somewhat attractive	very attractive	
	0	-2	1	2	
coastal wetlands	inside		outside		
exceptional wetlands		inside		outside	2
waterfront areas		outside		inside	2
primary roads		>1.0 mi	.5-1.0 mi	<.5 mi	1
secondary roads		>.5 mi	.25-.5 mi	<..25 mi	2
sewer pipes		>.5 mi	.25-.5 mi	<..25 mi	1
septic suitability		severe limi-	moderate limi-	slight limita-	3

Suitability factor	Factor Rating			weight	
	not interested	not attractive	somewhat attractive		
		tations	tations	tations	
water		>.5 mi	.25-.5 mi	<..25 mi	3
towns		>1.0 mi	.5-1.0 mi	<.5 mi	2

Source: WBF1

The Land Suitability Map, which is located on the following page, shows land suitability in the county according to these factors. It contains 4 classes of land – least suited, low suitability, moderate suitability, and high suitability. The higher suitability areas are concentrated in corridors along roads where utilities are available, close to existing communities, and along the waterfront areas. In addition, higher suitability land is located in the western area of the county where soils are more suited for septic tanks.

Section VI Review of Current Policies

This section is an evaluation of the effectiveness of the growth, land use, and development policies adopted in the 1992 CAMA Land Use Plan. The plan was amended in 2001 to include a policy addressing “cluster” development in association with planned unit developments.

The 1992 plan includes approximately 120 policy statements that address various aspects of land use and development and the requirements of the CAMA planning guidelines that were in place at the time. Specific evaluation of each policy would be unwieldy; therefore, a limited number of key policies have been identified for specific evaluation.

Generally, all of the policies included in the 1992 plan have merit. However, it is important to keep in mind that a small county like Pamlico has limited resources in staff time and money and that it is important for policies to focus on the most important land use and development needs and issues. Given the county’s resources, it was not possible to focus on all of the policies in the 1992 plan and take steps to ensure that they were effectively implemented.

In addition, some of the policies require implementation tools that are not yet available in the county. For example, many of the policies state that the county will encourage development in specific locations, which would require some tool similar to zoning.

Never the less, the county has made good progress on many of its key objectives and policies. These are summarized in Table 18.

Table 18
Review of Current Policies

Policy	Comment
County supports land application of treated wastewater	BRMSD has developed spray irrigation field in Arapahoe. Result is elimination of municipal discharges to Bay River and Neuse River.

Policy	Comment
Continue implementation of county-wide water system.	Water available on virtually all primary and secondary roads in county. County is seeking assistance from the Rural Center for preparation of water master plan and capital budget.
County supports objectives of National Flood Insurance Program.	Program implemented through flood damage prevention ordinance. Building inspections takes lead role in implementing elevation and flood proofing requirements.
County supports regulation of land uses near ground water resources.	County water department has prepared "wellhead protection plan" that meets state and federal requirements for protection of drinking water.
County will plan for adequate long-range water supply.	As noted, county beginning process to prepare a long-range water plan.
County supports development of non-polluting industries that are compatible with fishing, farming, and forestry.	County has formed an Economic Development Committee to pursue a range of economic opportunities, including retirement and second-home development, tourism, information technology, and other job-creating activities.
County will ensure that future development will not negatively impact aesthetic and recreational resources.	In lieu of implementing the county's zoning ordinance, new types of tools are required for these types of policies.
Dense development should only take place where water and sewer are available.	
Permanent conservation zone within 75 feet of natural mean high water line for all shorelines of estuarine waters, primary nursery areas, and public trust waters.	Effectively implemented with subdivision regulations, enforcement of the building code, and the CAMA development permit process. Seen by community as effective policy.
Support construction of water and sewer lines in areas classified as <i>community, rural with services, and limited transition</i> .	Most utility construction concentrated in these areas.

Policy	Comment
County will attempt to correct its worst substandard housing conditions by applying for CDBG funds.	County has consistently applied for CDBG funds when available.
County should work to carefully regulate future growth and development along its thoroughfares to prevent congestion and safety problems.	County lacks effective tools for implementing this policy.

Part 3. Land Use Plan^{3/4}Goals, Policies, and Future Land Use Map

Pamlico Growth and Development Goals

This section details Pamlico County's future land use goals. These goals describe the *desired ends* toward which the land use plan and its policies are directed. They also describe the values and principles that guide the county's development.

The goals are an outgrowth of the key issues and concerns identified by the Steering Committee; the information provided at community forums; the planning vision; and the technical analysis of existing and emerging trends. They provide a template for developing policies and programs. However, the goals are not part of the county's land use and development policies.

Satisfactory access for residents and visitors to Pamlico County's public trust waters for a range of activities

Land uses and land use patterns that are consistent with the capabilities and limitations of the county's natural systems

Preserved natural areas, such as the county's wetlands and pocosins, that have high biologic, economic, and scenic values

Mitigation of risks from storms and flooding

Better traffic flow and safety to accommodate the county's growing permanent population and its visitors

High quality waters in the county's rivers, creeks, and bays, and the Pamlico Sound that meet water quality standards and that are approved for shell-fishing

Land use and development patterns that preserve the county's rural character with more intensive development located mainly in the towns and villages where a full range of community services is available, and lower in-

tensity development, second home and retirement communities, and supporting businesses are located mainly in the rural areas and along the waterways

Sound economic base that generates jobs for residents who wish to work in the county; adequate transportation and access to surrounding areas for residents who work outside the county

Pamlico County's Future Land Use and Development Policies

Introduction

Pamlico County's policies are the principles and decision guidelines, or courses of action that the County will use to reach its vision and accomplish its land use and development goals. While the policies are not regulatory, except for the requirements and standards for development and land use in Areas of Environmental Concern, the County will follow a deliberate process to ensure that its development and land use guidelines and its future land use decisions are consistent with the policies. Part 4 of the plan, Tools for Managing Development, contains a description of the steps that will be taken to address consistency between the policies and county and municipal development guidelines.

CAMA planning guidelines specify that local policies must address six management topics. These management topics include:

- Public access
- Land use compatibility
- Natural hazard areas
- Infrastructure carrying capacity
- Water quality, and
- Local concerns

The CAMA planning guidelines also provide planning objectives for each of these topics. The planning objectives show the role that the local land use plan plays in the management of coastal resources. The management objective(s) for each management topic is shown at the beginning of each policy section.

The *local concern* management topic includes policies on a range of local issues, concerns, and opportunities related to economic development, community development, and land use. These may not be directly related to coastal environmental factors, but they are essential parts of a "comprehensive" land use plan.

The county’s policies for development in the estuarine shoreline exceed state standards. These policies are detailed in section 5.1.

The County’s land use and development policies are detailed below. To avoid any confusion, the policies are shown in **bold**.

The following definitions and descriptions of terms used in the policies are offered to assist with interpretation and use of the plan:

- Create:** Involve the county staff, Planning Board, Board of Commissioners and other public and private organizations to further the intent of the policy.
- Continue:** Follow past and present procedures and processes to maintain a particular policy.
- Encourage:** Further the policy by ensuring that decisions, such as subdivision approvals, highway improvements, and public utility extensions, are consistent with the intent.
- Support:** Employ county staff and solicit assistance from related state and local agencies to further the policy; take affirmative action, such as submitting grant applications or writing letters of support for grants or facilities, on projects that further the policy.
- Seek or work:** Use county resources, cooperate and act in a manner, and take actions that further the intent of the policy.

1.0 Public Access

Public Access CAMA Planning Objective
“Develop comprehensive policies that provide public trust water access for the shorelines of Pamlico County.”

- 1.1 **Pamlico County recognizes that the quality and quantity of access to its waters is an essential part of the lifestyle enjoyed by its residents, property owners, and visitors and that access is a key for development of its tourism economy. The county supports expansion of public and private access sites throughout the county.**

- 1.1.1 The County will revise and update the shoreline access plan that was prepared in 1988. The update of the plan will address the following objectives:
- 1.1.1.1 Identify boat ramp locations on the Atlantic Intra-coastal Waterway (AIWW) in the Goose Creek Island area and the Bay River Area. In addition to ramps, the sites will include put-in/take-out facilities for canoes and kayaks and adequate area for parking.
 - 1.1.1.2 Identify a system of small sites for put-in/take-out facilities for canoes and kayaks. The location of these sites will take into consideration the following factors:
 - The location of water trails identified on the "Paddle Trails of Pamlico County" maps.
 - A variation in trip lengths, times, and levels of difficulty.
 - Availability of support services and facilities such as suppliers, restaurants, campgrounds, indoor lodging, boat rentals, and so on.
 - 1.1.1.3 Capitalize on existing ramps and access points. These are numerous formal and informal access locations throughout the county. The plan will review the status and condition of these locations and identify those that are available and suitable for public access.
 - 1.1.1.4 Utilize property currently owned by public agencies. The plan will give particular emphasis to the use of lots and parcels acquired by the County through the flood recovery program and purchase of parcels currently used for access. In addition, it will clearly describe the tax advantages and lay out the mechanisms through which property owners may donate property or easements to support the access plan.
 - 1.1.1.5 Develop a long-range financial plan that identifies sources of revenue to acquire and/or develop the facilities.
- 1.1.2 The county recognizes the importance of marinas (publicly or privately owned docks for more than 10 vessels) in accommodating public access to its waters. The county, through its local policies and requirements, will support the CAMA specific use standards for marinas and will ensure that marina sites and marina operations are compatible with surrounding land uses

and are consistent with the goal of protecting and restoring water quality.

1.1.2.1 The county will require open water and upland marinas to meet the following development guidelines:

- Provide wastewater pump-out facilities and restrooms approved by the appropriate state or local agency.
- Provide at least ½ off-street space for each slip or storage space. (Marinas serving solely property owners of an adjoining subdivision are not required to provide off-street parking.)
- Provide at least one dry fire hydrant.

1.1.2.2 Multi-dock facilities that accommodate 10 or less slips or more than 4 slips are required to provide either permanent restrooms or pump-out facilities, unless they serve exclusively an adjoining residential subdivision.

1.1.2.3 Multi-dock facilities that serve an adjoining residential subdivision are not required to have permanent restrooms or pump-out facilities; however, the county strongly encourages homeowner associations in these subdivisions to establish and enforce rules that prohibit “live-aboard” situations at these facilities.

1.1.2.4 The county encourages Pamlico County marinas to participate in the “Clean Marina” program sponsored by the NC Division of Coastal Management and the NC Marine Trades Services organization. The county will support applications to the Division of Coastal Management from local marinas and other boat-docking facilities for grants to help install pump-out facilities.

1.2 The county will seek to maintain the pristine views along much of its shoreline and preserve free public use of its waters by encouraging upland marinas where sites are suitable and joint development of docks and piers to serve residential properties where practical.

1.3 The county will ensure that public access facilities have well designed ramps and put-in/take-out facilities and that adequate maneuvering and parking areas are available on site. All paved surfaces will have a 25-foot riparian buffer to help protect water quality.

1.4 The county will ensure that public access is protected through its review procedures for development proposals and plans.

2.0 Land Use Compatibility

Land Use Compatibility CAMA Planning Objectives

“Adopt and apply local development policies that balance protection of natural resources and fragile areas with economic development.”

“Policies that provide clear direction to assist local decision making and consistency findings for zoning, divisions of land, and public and private projects.”

- 2.1 **Pamlico County strongly discourages any uses in estuarine waters that are not compatible with protection and conservation of their biological and community values.**
 - 2.1.1 **Only development associated with water-dependent uses is allowed. Examples of appropriate development may include public access facilities, docks and piers, erosion control structures, or other uses that are permitted by CAMA use standards³.**
 - 2.1.2 **In all cases, the design of facilities or activities will ensure that any negative impacts on estuarine waters, during both construction and operation, are minimized and that they comply with all local policies and the policies of CAMA use standards.**
 - 2.1.3 **“Floating homes” are not allowed in estuarine waters. A “floating home” is a moored structure that is secured to piers or pilings and is used primarily as a residence and not as a boat.**
 - 2.1.4 **Marina construction is allowed, subject to the guidelines contained in the Public Access section. Where practical, upland marinas are preferred as an approach to maintaining public access and waterfront aesthetics.**
- 2.2 **The county strongly supports protection and conservation of its coastal wetlands, due to the essential role that they play in protecting water quality and providing food and habitat for fish and wildlife.**
 - 2.2.1 **Pamlico County endorses the CAMA policies and use standards for coastal wetlands and the development permit process as an effective tool for conserving coastal wetlands.**

³ NCAC T15A: 07H.0208

- 2.2.2 Through its local review requirements, the county encourages land uses and development that are consistent with conservation of coastal wetlands. Only uses that *require water access and cannot be located elsewhere* will be accepted. Examples of appropriate uses are utility easements, piers, and docks.
- 2.2.3 Where acceptable uses are permitted, they must be developed in such a manner that the impact on coastal wetlands is minimized.
- 2.3 The county strongly supports management of development in its estuarine shoreline to protect water quality and the aesthetics of the waterfront.
 - 2.3.1 The county supports the CAMA use standards⁴ for estuarine shorelines.
 - 2.3.2 The county will continue to work with the Environmental Management Commission to devise buffer approaches that work for water quality and that are consistent with development patterns in Pamlico County.
 - 2.3.3 The county establishes a local, permanent conservation zone within 75 feet of the normal mean high water level or normal water level for all shorelines bordering public trust waters, estuarine waters, and any waters designated as primary nursery areas.
 - 2.3.3.1 All development and construction activities will be prohibited in this area except for the following uses: marinas, docks and piers, boat ramps and similar structures providing public access; and structures to prevent erosion as described in the Public Access policies section.
 - 2.3.3.2 This permanent conservation zone is not intended to apply to man-made ditches, canals, basins, lakes, impoundments, and similar constructed facilities. The policy is not intended to apply to forestry operations that comply with “best management practices.”
 - 2.3.3.3 The conservation zone applies to all subdivisions of land after January 26, 1990, regardless of the intended use, and to all divisions of land after the *certification* of this plan.

⁴ NCAC T15A: 07H.0209

- 2.4 **The county strongly discourages any development in areas identified as non-coastal wetlands (sometimes referred to as “404” wetlands) that will alter their values for water storage, shoreline stabilization, protection of water quality, and provision of wildlife and aquatic life habitat.**
 - 2.4.1 **Development plans with 9 lots or more will identify non-coastal wetland areas prior to submittal of the preliminary plat for review.**
 - 2.4.2 **Developers are encouraged to use flexible and innovative site planning to preserve non-coastal wetlands.**
 - 2.4.3 **Site development plans will ensure that overall dwelling unit density in these is very low (typically no more than 1 dwelling for every 2 acres).**
- 2.5 **The county recognizes that many areas have soils that are not suited for the use of traditional septic tanks, according to current state regulations.**
 - 2.5.1 **The county will continue to discourage development in these areas until such time as an approved sewerage system is available.**
 - 2.5.2 **The county will require that any lots created in these areas have sufficient size to meet on-site wastewater treatment regulations.**
 - 2.5.3 **Until such time as an approved sewerage system is available, the county will support the use of innovative and alternative wastewater treatment systems.**

3.0 Infrastructure Carrying Capacity

INFRASTRUCTURE CARRYING CAPACITY CAMA PLANNING OBJECTIVE
 “Establish policies to ensure that the location and capacity of public infrastructure is consistent with the County’s growth and development goals.”

- 3.1 **The county strongly supports completion of 5-laning of NC 55 from the Craven County line to Bayboro.**
 - 3.1.1 **The county will continue to advocate for inclusion of funds in the NCDOT’s Transportation Improvement Plan.**
 - 3.1.2 **The county will take steps to develop policies that protect the traffic-carrying capacity of the up-graded facility. These policies will address the following development considerations:**

- 3.1.2.1 Local guidelines on the number and design of drive-ways and access points with emphasis on encouraging creative development plans that use common access points and well-designed internal traffic flows.
- 3.1.2.2 Encouraging clustering or concentration of commercial development at major intersections to reduce traffic congestion and safety considerations related to “strip commercial development.”
- 3.1.2.3 Recognition that NC 55 is the county’s “front door” with attention to appropriate signage, parking lot development, and outside storage.
- 3.1.3 The county strongly encourages the NCDOT to develop route and design alternatives for the NC 55 upgrade that minimize the impacts of the facility on homes and businesses in the Bayboro area.
- 3.2 The Thoroughfare Plan of Pamlico County was last updated in 1994 and does not reflect many of the current development trends. The county has requested the NCDOT to schedule an update process for the plan. The county will participate with the DOT staff in the update in order to ensure that the plan recognizes the following county concerns:
 - County economic development goals;
 - Existing and future development trends;
 - Plans for construction of local infrastructure;
 - Existing traffic safety concerns;
 - Emergency evacuation needs; and
 - Improved north-south access.
- 3.3 The county continues to support expansion of the Bay River Metropolitan Sewer District’s (BRMSD) central sewer system and the on-going upgrade of its wastewater treatment and disposal facilities.
 - 3.3.1 The county will actively participate with BRMSD to identify financial alternatives that will allow the system to lead and guide development rather than reacting to it;
 - 3.3.2 The county will guide higher density community development into areas that are currently served by the BRMSD or that the BRMSD plans to serve within the foreseeable future.
 - 3.3.3 For long range development, the county will strongly support the following priorities:
 - 3.3.3.1 Service to areas with existing developed areas to address public health and water quality concerns;

- 3.3.3.2 Service to areas designated as *towns and community centers* on the Future Land Use Map; and
 - 3.3.3.3 Service to areas designated as *rural with services* on the Future Land Use Map.
 - 3.3.4 For short-term development, the county will consider financial alternatives to help “up-size” facilities currently planned for the southeastern area to create a “regional” system with capacity to serve the surrounding *rural with services* area.
- 3.4 For areas not served by the BRMSD and areas where soils will not permit septic tanks, the county will support the use of “state-of-the-art package wastewater treatment plants.” Owners and operators of these facilities must have a plan of operation, a financial plan, and security satisfactory to the county, that ensure the plan’s continuous operation and its periodic repair, upgrade, and expansion as needed.
- 3.5 The county will continue to support expansion of the county water system to serve any existing un-served areas and new development. Specifically, the county will schedule implementation of its revised water system plan to address storage, flow, and system loops.
- 3.6 The county will cooperate with appropriate state and federal agencies to manage stormwater runoff and non-point source pollution discharges to its estuarine and public trust waters.
 - 3.6.1 The county will provide educational materials to owners and developers that plan development or construction to inform them of effective methods to protect water quality during construction and on-going operations.
 - 3.6.2 Prior to issuance of building permits for developments, either on a single parcel or a subdivision, that involve land disturbing activities of 1-acre or greater, the county will require an approved stormwater management application and an approved soil erosion and sedimentation control plan.
 - 3.6.3 The county will work with the local Soil and Water Conservation District, in partnership with the Natural Resources Conservation Service-USDA staff, and local property owners to identify effective solutions that address existing drainage problems while protecting water quality.

4.0 Areas with Natural Hazards

NATURAL HAZARD AREAS CAMA PLANNING OBJECTIVES

“Develop location, density, and intensity criteria for new development so that it can better avoid or withstand hazards”

“Correlate existing and planned development with existing and planned evacuation infrastructure”

- 4.1 The county recognizes the risks to life and property that exist within its *special flood hazard areas* and those related areas that may be inundated by hurricanes. The county will continue implementing measures that mitigate these risks and will avoid taking any action in these areas that materially increases these risks to life and property.
- 4.2 The county allows development and redevelopment within *special flood hazard areas* subject to the provisions and requirements of the National Flood Insurance Program and the county’s Flood Damage Prevention ordinance. Special flood hazard areas are those areas delineated on Flood Insurance Rate Maps (FIRM) as having a 1-% chance of flooding in any year.
- 4.3 The county will continue to place emphasis on enforcement of the Flood Damage Prevention Ordinance to help mitigate risks from flooding.
- 4.4 The county recognizes that, in recent years, homes and other structures built under the provisions of the current Flood Damage Prevention ordinance have sustained damage from flooding. Therefore, the County will request the Planning Board to prepare an amendment to this ordinance that will increase the minimum distance between flood level and the floor joists of the lowest finished floor to 24 inches.
- 4.5 The future location of public facilities and structures will take into consideration the existence and magnitude of natural hazards. The county will not allow construction of public facilities (i.e., utilities) in hazard areas unless no other option is available. When location in hazard areas is unavoidable, all facilities, utilities, and structures will be designed and located to comply with requirements of the National Flood Insurance Program and the county’s Flood Damage Prevention Ordinance.
- 4.6 The county recognizes that a significant share of its housing stock was built prior to the implementation of flood damage prevention

measures. The county will cooperate with state and federal agencies and the municipalities to conduct an on-going program to elevate residences and other structures above the flood elevation. The objectives sought by this program are to mitigate risks for older properties and to keep neighborhood intact.

- 4.7 The county will adopt and periodically update a Hazard Mitigation Plan that addresses a range of natural hazards in the county. The plan will meet the standards of the NC Division of Emergency Management and FEMA.
- 4.8 The county will maintain or improve its Community Rating System (CRS) score to make the county safer and to reduce premiums for Federal Flood Insurance.
- 4.9 The county will take steps to ensure that traffic handling capacity in times of emergencies is a consideration in Thoroughfare Planning and that needed improvements are included in the NC DOT Transportation Improvement Program.

5.0 Water Quality

WATER QUALITY CAMA PLANNING OBJECTIVES

“Policies that help prevent or control non-point source discharges”

“Establish policies and land use categories aimed at protecting open shell-fishing waters and restoring closed or conditionally closed shellfishing waters”

- 5.1 The county recognizes the importance of water quality to preserving the life-style and economic well being of its residents and property owners and will implement measures to address both point-source and non-point source discharges in order to protect and restore water quality.⁵
 - 5.1.1 The county will continue to enforce a 75-foot permanent conservation zone along its water bodies. Generally, except as allowed by policy 2.3.3, page 59, no construction is permitted within this zone on lots or parcels divided after January 26, 1990.

⁵ The Estuarine Shoreline policies contained in this section exceed the standards of the State.

- 5.1.2 The county will maintain an “overall” low-density development pattern that is consistent with maintaining and enhancing water quality. In traditional subdivisions, waterfront lots must be a minimum of 1 acre and interior lots must be at least ½ acre; in planned unit developments, the sizes of waterfront and interior lots may vary as long as prescribed densities are maintained according to the provisions of the county Subdivision Regulations.
- 5.1.3 The county strongly encourages “cluster” development and other techniques to reduce the impervious surfaces associated with new development or significant redevelopment.
- 5.1.4 The county designates coastal and non-coastal wetlands as conservation areas to address their roles in protecting water quality. In non-coastal wetlands, the county encourages residential densities at no more than 1 dwelling per 2 acres.
- 5.1.5 The county strongly supports location, design, and operation requirements for open water and upland marinas that minimize any negative impacts of these operations on water quality.
- 5.2 The county will continue to reinforce the state’s soil erosion and sedimentation control program and its stormwater management program by requiring proper permits prior to issuance of building permits or approval of preliminary plats for subdivisions.
- 5.3 The county will work with the Soil and Water Conservation District to identify solutions for existing drainage problems that protect water quality.
- 5.4 The county strongly encourages farmers and timber operators to employ accepted “best management practices” to minimize the impact of these operations on water quality.

6.0 Areas of Local Concern

6.1³/₄ Economic development

- 6.1.1 Pamlico County encourages expanded development of retirement and second home communities in the county to create jobs and to benefit the county tax base.
 - 6.1.1.1 The county will employ its land use and development policies to ensure that its waters and its other natural

resources, which are necessary for this industry, are protected and enhanced.

- 6.1.1.2 The county will ensure that plans for its water system support anticipated development of retirement and second home communities.
- 6.1.1.3 The county will work with the BRMSD to develop financial plans and system expansion plans to ensure that affordable sewer services can be delivered in areas planned for retirement-second home development.
- 6.1.2 The county supports the efforts of the NC Department of Commerce and the local Committee of 100 to locate businesses in the county that provide living wage jobs for Pamlico County residents and that are consistent with its goals for environmental quality and its long-term goal for expanding retirement and second home communities.
 - 6.1.2.1 The county will work with the Committee of 100 to update the inventory of industrial sites. The inventory will be guided by the following site and development criteria, including those of the NC Department of Commerce "Certified Industrial Site" program.
 - Minimum of 10 acres capable of supporting a building of 50,000 square feet plus parking and other ancillary uses;
 - Accessibility to roadway meeting NCDOT standards for tractor/trailer use;
 - Wetlands must be delineated;
 - Substantially out of the 100-year flood hazard area;
 - Compatible with surrounding land uses; and
 - Ability to manage stormwater runoff onsite in manner that minimizes impact on water quality
 - 6.1.2.2 The county will support local efforts to conduct business feasibility studies and to develop grants for planning and capital costs associated with service extension and site development for industrial locations.
 - 6.1.2.3 The county will support efforts to provide well-designed, affordable housing for families that wish to live in Pamlico County and work in the surrounding area.
- 6.1.3 The county recognizes the potential of resource-based recreation and tourism for creating jobs and the beneficial impacts

that these activities, particularly vessels docked and stored locally, have on the county tax base.

- 6.1.3.1 The county will spearhead a partnership of local groups and state agencies to develop a plan to expand these activities and to increase the number of jobs that they support. The county will include a tourism survey and a marketing strategy as major elements of this plan.
- 6.1.3.2 In addition to the land use and development policies outlined in this plan, the county will work with regional or state organizations to expand the use of conservation easements to preserve important scenic resources such as coastal wetlands, important pocosins, swamps, farms and timberland.
- 6.1.3.3 The county will encourage upland marinas as a tool to reduce the number of piers and docks and, thereby, protect the scenic quality of its waters.
- 6.1.3.4 The county will coordinate boating facilities with lodging and eating accommodations to increase the county's attractiveness to boaters and paddlers.
- 6.1.3.5 The county will work with local groups and the NC DOT to update existing bike routes and upgrade roads and highways to make them safer for cyclists.
- 6.1.4 Pamlico County recognizes that many of its residents will continue to commute outside of the county for employment. To address their safety and convenience, the county will work with the NC DOT to maintain an up-to-date Thoroughfare Plan and to obtain funding for needed improvements through the Transportation Improvement Program.

6.2³/₄ Resource-based industries

- 6.2.1 Farming and timbering are part of the economic tradition and the rural character of Pamlico County and the County will encourage land use and development patterns that protect these industries.
 - 6.2.1.1 The county will discourage land uses that are incompatible with farming and timbering uses from locating in areas classified as Rural with Services or Agriculture,

Forestry, and Rural Housing on the Future Land Use Map (as attached).

- 6.2.1.2 The county will consider the impact of service extensions on bona fide farming and timber operations.
- 6.2.1.3 The county will consider implementation of "agricultural districts" to recognize the importance of farming and forestry and to give these operations a level of protection from unwanted development.
- 6.2.2 All proposed mining operations must have an impact statement that complies with the county's Environmental Impact Statement Ordinance prior to issuance of local permits.

6.3³/₄ Community development

- 6.3.1 The county will work with the municipalities to identify deteriorated and dilapidated housing in the county. The county will encourage steps to improve occupied substandard housing and to remove vacant dilapidated housing. The county will seek grant funds and other financial resources to improve its housing stock.
- 6.3.2 The county recognizes the difficulty of disposing of mobile homes that are dilapidated and abandoned and will work with the municipalities, property owners, other counties, state agencies, and other organizations to develop effective strategies to address this problem.
- 6.3.3 "Junk yards" that are not buffered and carefully maintained can be unsightly and may have negative impacts on environmental quality. The county will take steps to ensure that these operations are properly screened and encourage owners and operators to properly maintain them so that the risk of environmental impact is minimized.
- 6.3.4 Pamlico County has waterfront uses that are now obsolete. The county will offer assistance to owners of these properties for accessing resources for redevelopment for uses that are consistent with the policies contained in this plan.
- 6.3.5 The county will request the Planning Board to prepare and recommend an amendment to the Subdivision Regulations that requires "dry hydrants" in all subdivisions or divisions of land with nine or more lots, where practical.

6.4^{3/4}Land use

- 6.4.1 The county will encourage future development to incorporate landscaping and vegetation that increases its visual attractiveness. The county will also encourage the use of pervious paving materials where practical to reduce the volume of storm-water runoff to rivers, creeks and bays. The county will review its existing development site design criteria with these needs in mind.
- 6.4.2 Future development should be managed to maintain the public's visual access to the water. The ability of residents and visitors to see the water is an important visual resource that must be protected.
- 6.4.3 The county recognizes the importance of wetlands, forestlands, and farmlands to the visual integrity of the area and will seek to minimize the impacts of future growth on these resources.
- 6.4.4 Future development should be encouraged to provide visual buffers that minimize their visual intrusion on the community. Visual buffers are particularly important along major roads and thoroughfares in the county.
- 6.4.5 The county will encourage future growth and development along its roads and highways that protect their capacity and enhances traffic safety.
 - 6.4.5.1 The county will discourage proliferation of individual driveways and access ways by encouraging creative development projects that incorporate common access points and well designed internal traffic flows.
 - 6.4.5.2 The county will discourage the proliferation of strip commercial development, particularly along NC 55, which is being upgraded to a 5-lane facility.

6.5^{3/4}Policies Related to Municipalities

Four Pamlico County municipalities have joined with the county to prepare the CAMA Land Use Plan Update. These municipalities are Bayboro, Mesic, Minnesott Beach, and Vandemere. The Joint Plan policies described above apply to these municipalities. In addition, the following specific policies also apply to the municipalities:

6.5.1 Bayboro

- 6.5.1.1 The Town supports open water, upland marinas, and dry stack storage. In addition to the Public Access policy on marinas, the Town will ensure that requests for marinas are consistent with the its zoning ordinance.**
- 6.5.1.2 The Town supports continued development of its Park providing access to the Bay River. The Town will also support additional Bay River access locations.**
- 6.5.1.3 The Town will use its zoning ordinance to support the CAMA use standards for development in any AEC. Lot dimensions in the 75-foot permanent conservation zone along the Town’s waterways will be controlled by the zoning ordinance.**
- 6.5.1.4 In areas where sewer service is not available, the Town supports the state regulations regarding septic tank installation and the Pamlico County Health Department permitting process.**
- 6.5.1.5 The Town has sites of archaeological, historic, and cultural significance. It will support countywide efforts to protect and preserve these sites. Floating homes are not allowed.**
- 6.5.1.6 The Town will participate with the county in submitting applications for financial assistance to help improve housing conditions.**
- 6.5.1.7 The Town will continue to encourage low-density development patterns and its residential character through its zoning ordinance and subdivision regulations.**

6.5.2 Mesic

- 6.5.2.1 In areas where sewer service is not available, the Town supports the state regulations regarding septic tank installation and the Pamlico County Health Department permitting process.**
- 6.5.2.2 The Town will continue to encourage low-density residential land uses that are consistent with its overall development patterns. The Town will rely on the county**

subdivision regulations to implement this policy. Lot dimensions in the 75-foot permanent conservation zone along the Town's waterways will be controlled by the zoning ordinance.

6.5.2.3 The Town supports development of industrial sites that will provide local employment and that substantially meet the criteria of the state "Certified Industrial Site" program.

6.5.2.4 The Town will participate with the county in submitting applications for financial assistance to help improve housing conditions.

6.5.3 Minnesott Beach

6.5.3.1 The Town will use its zoning ordinance to support the CAMA use standards for development in any AEC. Lot dimensions in the 75-foot permanent conservation zone along the Town's waterways will be controlled by the zoning ordinance.

6.5.3.2 In areas where sewer service is not available, the Town supports the state regulations regarding septic tank installation and the Pamlico County Health Department permitting process. "Package treatment plants" are allowed with proper county and state permitting.

6.5.3.3 The Town will support an open water or upland marina only if it meets state and federal requirements, the CAMA land use plan policy, and the requirements of the Town's zoning ordinance. The Town does not support floating homes.

6.5.3.4 The Town supports a limited commercial area that provides neighborhood-type services.

6.5.3.5 The Town discourages industrial-type land uses within and adjacent to the town limits.

6.5.3.6 Due to the character of the town, Minnesott Beach will not encourage tourism or facilities for short-term visitors.

6.5.3.7 The Town supports residential development that is consistent with a single-family, conventional housing set-

ting. Multifamily structures are limited to those areas zoned for such uses at the time of plan adoption.

- 6.5.3.8 The Town encourages residential development that is consistent with second home and retirement living.

6.5.4 Vandemere

- 6.5.4.1 The Town supports open water, upland marinas, and dry stack storage. In addition to the Public Access policy on marinas, the Town will ensure that requests for marinas are consistent with the its zoning ordinance. Floating homes are not permitted.
- 6.5.4.2 The Bay River Metropolitan Sewer District provides public sewer to Vandemere. In areas where sewer service is not available, the Town supports the state regulations regarding septic tank installation and the Pamlico County Health Department permitting process. "Package treatment plants" are allowed with proper county and state permitting and only if operated and maintained by a public agency.
- 6.5.4.3 In order to increase its job base, the Town supports development of industrial sites that will provide local employment and that substantially meet the criteria of the state "Certified Industrial Site" program.
- 6.5.4.4 The Town will continue to encourage low-density residential land uses that are consistent with its overall development patterns. The Town will utilize its zoning ordinance to guide the types and intensities of commercial and residential land development. The Town will rely on the county subdivision regulations to guide the land subdivision process. Lot dimensions in the 75-foot permanent conservation zone along the Town's waterways will be controlled by the zoning ordinance.

Future Land Use Map

CAMA land use planning guidelines require a future land use map that depicts the County's growth and development policies and the desired future patterns of land development. The map must give due consideration to the planning area's natural system constraints, its existing land uses, and its policies related to highways, water, wastewater treatment, and stormwater management. The map is an extension of the county's *planning vision* and its *planning goals*. It describes where the county wants growth to occur and at what densities and it shows the general location of resources that the county wishes to conserve. The future land use map also provides a guide to local, state, and federal agencies for planning projects that are located in Pamlico County or that will impact the county.

Pamlico County's future land use map has 7 categories. These include the following:

Conservation—

- I Estuarine waters
- II Estuarine shoreline conservation zone
- III Coastal wetlands
- IV Non-coastal wetlands

Towns and Community Centers

Rural with Services

Agriculture and Rural Housing

The Future Land Use Map⁶ is divided into Part A that covers the western and southern areas and Part B that covers the northeastern and eastern areas. These maps follow.

The Rural with Services category includes 2 sub-categories – Waterfront Development Areas and Enterprise Corridors – to identify areas with specific development objectives.

These future land use categories show where community development should occur and where land should be devoted to conservation and rural

⁶ To avoid confusing information on the Future Land Use Maps, a separate map of 14-digit hydrological units is provided.

uses. They do not specify the detailed location of land uses like residential, commercial, industrial, and so on.

The policy intent of each of these land use categories is described in the following section. The future land use map is intended to depict the application of the county's policies on the land. Due to scale and other limitations, the map must be considered a guide only and not a substitute for on-site investigations. If there are conflicts between the policies and the descriptions of the land use categories and the future land use map, the policies and classification descriptions are controlling.

The Future Land Use Map shows the general location of the anticipated extensions of the Bay River Metropolitan Sewer District's sewer system. The extensions shown are in the Reelsboro area between Grantsboro and the Pamlico-Craven county line. Extensions are under discussion in the Florence-Whortonsville-Pamlico area. At the time of this plan, the route of this expansion had not been determined. To avoid significant confusion, these lines are not shown on the plan. When this route is finalized, the county will update the Future Land Use Map.

Conservation areas

The purpose of the Conservation classification is two-fold. First, this classification provides for the protection and long-term management of Pamlico County's significant and irreplaceable natural systems. These areas have high environmental, scenic, recreational, economic, and life-style values. Second, the classification helps the county and its municipalities to mitigate the risks to life and property that would result from development in these areas with wind and flooding. The Conservation Areas are generally consistent with the areas evaluated as having the *least suitability* on the Land Suitability Analysis.

Following the general approach of the current land use plan (1992), the conservation classification is divided into the following four sub-classes that reflect the capabilities and limitations of the county's natural systems:

- Conservation I —estuarine and public trust waters
- Conservation II —estuarine shoreline preservation zone
- Conservation III —coastal wetlands

Conservation IV —non-coastal wetlands

Each of these sub-categories has specific land use and development objectives and policies, which are described below.

Conservation I

The purpose of this classification is to protect and to assist in the long-term management of the county's estuarine and public trust waters. Within Pamlico County, *estuarine waters* include the sound and bays, the Pamlico River, the Bay River, and the coastal waters of the Neuse River, and the tributaries to these waters. *Public trust waters* include all estuarine waters and the lands under them plus other navigable water bodies to which the public has rights of access and navigation. These waters are held "in trust" for the public by the state of North Carolina and its local jurisdictions.⁷

These estuarine water systems are "among the most productive natural environments" in the state. They support the valuable commercial and sport fisheries of the county⁸. As public trust areas, these waters have high fishery, aesthetic, recreational, and economic development values.

The county's primary goals for this classification are (1) to allow only those water uses and land uses in this classification that are consistent with conservation of these waters; and (2) to protect the public's rights to access, navigation and recreation. The county also allows development activities in this classification that require water access and that cannot function elsewhere, if these uses are designed, developed, and operated in a manner that is consistent with the primary goal. Examples of these uses include erosion control structures, docks and piers, marinas, and mooring pilings.

The county will ensure that development and uses established in this classification do not interfere with the public's rights of access, navigation, and recreation.

⁷ T15A NCAC 07H.0206 (a), 0.207 (a).

⁸ T15A NCAC 07H.0206 (b), .0207 (b).

Conservation II

This land use classification establishes a permanent conservation zone for all land within 75 feet of the natural mean high water level for all shorelines bordering primary nursery areas, estuarine waters, and public trust waters. Man-made ditches, canals, and basins are excluded from this classification.

Development activity within this preservation zone has direct and secondary impacts that influence water quality and the quality of estuarine life. Development within this zone is subject to the damaging processes of flooding and shoreline erosion. And finally, development within this zone affect scenic values that are so important to the overall quality of life in the county.

All construction activities are prohibited in this zone, except for those permitted under the CAMA use standards for estuarine waters and coastal wetlands. Generally, these uses are those that require water access and that cannot function in another location, such as piers and docks, boat ramps, marinas, and erosion prevention structures.

Agricultural operations that follow "Agricultural Best Management Practices" and forestry operations that follow "Forestry Best Management Practices" are not restricted in this area.

Conservation III

This land use classification encompasses areas in the county that are designated as *coastal wetlands*, which includes any salt marsh or other marsh that is subject to flooding by tides, including wind tides⁹. Without the nutrients exported from these marshes to the surrounding waters, the productivity levels of the estuaries could not be maintained. The wetlands provide extensive food and cover for waterfowl and other wildlife, and they serve as a defense mechanism against the shoreline erosion processes. In addition, the county's coastal wetlands serve as nutrient and sediment traps that help prevent pollutants from entering the water.

⁹ T15A NCAC 07H.0205 (a)

The county's primary goal for this land use classification is to protect the biological, aesthetic, economic, and life-style values associated with wetlands. To achieve this goal, the county will only support land uses and development that are consistent with the goal and that require water access and that cannot function elsewhere. These uses include those described in the CAMA use standards for coastal wetlands¹⁰.

Conservation IV

This classification includes areas that are designated as *non-coastal wetlands* (sometimes referred to as "404" wetlands). These wetlands, according to the Corps of Engineers, are those areas that are "inundated or saturated by surface or ground water at a frequency or duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." These wetlands have significant values that include water storage, shoreline stabilization, water quality, wildlife and aquatic life habitat, and recreation and education.

The county will only support development in these areas that does not alter their unique character, that preserves their values, and that is consistent with local, state, and federal requirements. Gross development density for the area in Conservation IV is projected to be 1 dwelling for every 75 acres or less. Site development density should not exceed the equivalent of 1 dwelling unit per 2 acres.

Towns and Community Centers

This classification includes the incorporated areas and surrounding unincorporated borders and the unincorporated communities that are more densely developed and that have one or more community services. The Community Center designation includes the Reelsboro and Merritt areas. All of the areas in this classification have county water services and Mesic, Vandemere, Bayboro, and the Reelsboro areas have community sewer. The county will encourage its most intensive growth and development in these areas. Development will include a mixture of community-level land uses—a mixture of housing types with an average density that is higher

¹⁰ T15A NCAC 07H.0205(d).

than other areas and shopping and employment opportunities to help meet the needs of area residents.

Gross development density for this classification is projected to be approximately 1 dwelling for every 7.5 acres or less. Site development density, where water and sewer and other services are available, may be approximately 2 dwellings per acre or higher.

The county seeks to provide water services to the all areas in this classification, where feasible, and will cooperate with BRMSD and the municipalities to expand sewer collection facilities to fully serve these areas.

The county will team-up with the elected officials and community leaders in the Towns and Community Centers to devise growth and development strategies that capitalize on the natural resources and community services that the areas offer. Initial planning will be done in Mesic-Vandemere and Bayboro, since these communities already offer a full range of community services.

Rural with Services

This classification includes the areas where development at a density and intensity that is below urban levels is encouraged. These areas are near full water service and either have access to central wastewater treatment service or are expected to have service within the 20-year planning horizon.

It is expected that these areas will develop at a low residential density. Gross development density for this classification is projected to be approximately 1 dwelling for every 15 acres. These densities allow for continued use of a majority of the land for farming and timber. Site development density is projected at approximately 1 dwelling per acre for waterfront areas in subdivisions and approximately 2 dwellings per acre in non-waterfront areas. Planned unit developments and flexible site planning are encouraged so that natural systems and scenic resources can be preserved.

Convenience retail and other traditional non-residential rural land uses are encouraged for locations at cross-roads where they will have less impact on surrounding land uses and on traffic safety.

Agriculture and forestry activities will continue in this classification.

Waterfront Development Areas. Within the Rural with Services classification, there are areas in the eastern and southern areas where the county will encourage water-oriented second home and retirement communities. Flexible site planning, conservation design, and planned unit development concepts are strongly encouraged in these areas so that natural systems, water quality, and scenic views are protected and the most efficient use of the waterfront is accomplished. Overall development density for these areas will be the same as other Rural with Services areas.

In the eastern area, from Florence-Whortonsville south to Oriental, the county will actively participate in extension of sewer services. Sewer service in the southern areas is a long-term consideration.

Enterprise Corridors. The NC 55 corridor, between Alliance and the Reelsboro, and the NC 304 Corridor, between Bayboro and Vandemere, are recognized as Enterprise Corridors, which is a sub-category of the Rural with Services classification. These corridors offer meet basic location requirements for business and commercial development – excellent highway access and available water and sewer services. The county encourages business and commercial development in these corridors with an emphasis on creating jobs and providing services for county residents. However, farming and related residential uses will continue to dominate.

The county will strongly encourage development patterns and site plans in the Enterprise Corridors that ensure compatibility with surrounding land uses, avoid the negative aspects of commercial strip development, and protect the safety and traffic capacity of the roadway. Developing and adopting a workable policy to limit the proliferation of driveways will be a focus of the effort to preserve capacity and to enhance safety.

Agriculture, Forestry and Rural Housing

The purpose of this classification is to conserve the county’s farming and timber operations, which are major aspects of the county’s economy, its history, and its scenic rural character. The county will discourage uses in these areas that are not compatible with agriculture and forestry.

Rural housing is a compatible use that is encouraged in this area. Even though water services may be available in these areas, soils are not well suited for septic tanks and central sewer services are not expected during the planning horizon. Therefore, the County expects residential development to occur at very low densities. Gross development density for the area in this classification is projected to be 1 dwelling for every 75 acres or less. Site development density should not exceed the equivalent of 1 dwelling unit per 2 to 5 acres or lower.

Allocation of Land to Various Land Use Classifications

The planning guidelines require an analysis of the amount of land allocated to each of the land use classifications shown on the future land use map and a comparison with the land needs analysis shown in Part 2, Section III, Table 15, page 36. Table 19 details this analysis.

Table 19
Comparison of Land Allocated to Future Residential Land Use and Projected Land Needs

Future Land Use Classifications	Total acres allocated	Vacant acres	Estimated gross density	Estimated households accommodated
Towns and communities	16,000	5,000	1 household/7.5 acres	600
Rural with Services	60,000	11,000	1 household/15 acres	700
Conservation IV	74,000	6,000	NA	NA
Agriculture, forestry, and rural housing	23,000	NA	1 household/75 acres	300
Other conservation	48,000	NA	NA	NA
Total households accommodated				1,780

dated				
Total projected household growth (after allowed 1.5X adjustment: $1,200 \times 1.5 = 1,800$)				1,800

Table 15 in “Analysis of Existing and Emerging Trends” provides a household growth estimate of 1,200 over the planning horizon. After applying an adjustment factor of 1.5 times projected growth, the number of households to be accommodated by the plan is approximately 1,800. As shown in the table, the area on the future land use map allocated to land that may be used for residential development is well within the estimate.

Cost of Required Community Facility Extensions

The land use patterns shown on the future land use map are not dependent on the extension of community facilities. However, the county’s policies are designed to support the Bay River Water Metropolitan Water and Sewer District’s extension of sewer services in the southeaster area of the county.

Part 4. Tools for Managing Development

This section of the plan describes Pamlico County's strategy and action plan for implementing its Growth and Development Policies. The section includes four major parts:

1. Description of the role of the plan and the status of its policies in the County's land use and development decisions.
2. Description of the County's existing development management program, including ordinances and plans, and how it will be used to implement the policies.
3. Identification of any additional tools that will be used to implement the plan.
4. Action plan and schedule for implementation.

Each of these parts is discussed below.

Role and Status of Plan

The Pamlico County CAMA Land Use Plan will serve both day-to-day and long-range functions. The day-to-day functions relate primarily to the County and Towns' administrative staffs on preparation and administration of development management ordinances and the public's understanding and use of these ordinances for land use and development decisions regarding their own property.

For the Board of Commissioners, the Plan will be a policy and decision guide on matters related to land use and land development in the County planning area. It will not have the status of a local ordinance or code, except in matters related to development or land use within Areas of Environmental Concern, but the policies and the future land use map will guide decisions on applicable ordinances and policies such as the zoning ordinance and subdivision regulations. The plan will also be used in the Board of Commissioners' decision-making on the capital and annual operating budgets. The Board will review the implementation plan periodically and make necessary adjustments based on budgetary considerations, coordination with other projects, and community needs.

Changes in the implementation strategy will be transmitted to the Division of Coastal Management.

Another key use of the Plan is for **consistency determinations** by the Division of Coastal Management on major development permits, and by other state and federal agencies on the consistency of their projects and programs with local plans and policies.

The plan will also be a useful tool for others as outlined below.

- **Property owners and developers**— Plan will provide guidance on the types of land uses and development that are desired by the community. The policies will help owners or developers formulate proposals that are consistent with the goals and objectives of the community, thereby increasing the likelihood of approval. Finally, the plan provides base information that will help owners and developers understand the capabilities and limitations of their property.
- **Community members at large**— Plan will provide information that will permit residents and property owners to better understand plans for public projects or private development and will provide a reference when supporting or opposing such proposals.
- **Administrative staff**— The staff of the County and the Towns will use the plan as a tool for evaluating development proposals and for preparing plans for public facilities. Staff will also check existing ordinances for consistency with the plan and recommend any necessary adjustments to the planning board and/or Board of Commissioners. Staff will also use the plan and implementation strategy when preparing its budget recommendations and will make reference to the plan when preparing applications for grants and other assistance.
- **Planning Board**— The planning board will use the plan and its policies to determine consistency of project plans and development proposals with community goals and objectives in making decisions to grant or deny requests, such as an ordinance amendment, special use permit, or subdivision plat, or to approve project plans.

Existing Development Management Program

The existing development management program of Pamlico County and the participating municipalities provides a comprehensive basis for im-

plementing the growth and development policies. At the present time, the program includes the following ordinances and plans:

- Subdivision regulations
- Zoning in Bayboro, Minnesott Beach, and Vandemere
- Flood damage prevention ordinance
- Mobile home and travel trailer park ordinance
- Shoreline access plans

In addition, the county enforces the state building code throughout the planning area. These policies and ordinances are summarized in Table 20.

The County has a well-staffed inspections program that will be responsible for coordinating the administration of the development management program. This department has oversight of all ordinances related to building and development within the county.

The Shoreline Access Plan is the responsibility of the Parks and Recreation Department. The Parks and Recreation Department will oversee any adjustments to this plan.

New Tools/Reviews and Amendments/Projects

Ordinance amendments

Implementation of the policies contained in the Land Use Plan will require no new tools and only limited review and possible amendments to existing tools.

1. Review the Subdivision Regulations for consistency with updated land use plan.
2. Consider amendment to Subdivision Regulations requiring installation of dry hydrants in new development where practical.
3. Amendment to the Flood Damage Prevention Ordinance to increase the elevation of the joists of the first finished floor level above base flood elevation.

Table 20
Pamlico County CAMA Land Use Plan
Existing Development Management Program

Ordinances and Policies	Public access	Land use compatibility	Infrastructure carrying capacity	Natural hazard areas	Water quality
Subdivision regulations— County, also applies to Bayboro, Me- sic, and Van- demere Minnesott Beach en- forces own subdivision regs		Prohibits platting of “unsuited” land for residen- tial or other uses.	<ul style="list-style-type: none"> • Requires con- nection to public water and sewer where avail- able. • Requires sep- tic permit. 	Comply with Flood Damage Prevention Ordi- nance.	<ul style="list-style-type: none"> • Implements shoreline con- servation zone • Requires large lots on estua- rine shorelines
Zoning ordi- nance— Bayboro Minnesott Beach Vandemere		<ul style="list-style-type: none"> • Bayboro – 2 du./acre • Vandemere – 2.5 du./acre 			
Flood dam- age preven- tion ordi- nance County, also applies to		No hazardous land uses permit- ted in flood haz- ard area.		Requires all new or substantially upgraded struc- tures to comply with flood dam- age prevention	WWT must be designed to pre- vent discharge into floodwaters.

Bayboro, Minnesott Beach, Mesic, and Vandemere				standards.	
State building code (enforced by county inspections)				Coastal structures must meet wind-load requirements.	
Mobile home and TT park ordinance			Requires facilities to protect public health.	Comply with Flood Damage Prevention Ordinance.	
Shoreline access plan	Policy for developing and maintaining public access locations throughout community.				

4. Review all development regulations to identify opportunities to reduce the amount of required impervious surfaces or to identify means to encourage use of paving materials that help reduce runoff.
5. Consider regulation to address buffering and maintenance of “junk yards.”

Projects and Plans

1. Update of the Shoreline Access Plan.
2. Ongoing coordination with NCDOT on the update of the Pamlico County Thoroughfare Plan.
3. Work with the BRMSD to determine financial options for “up-sizing” facilities to be installed in conjunction with the “Gum Thicket” development. In addition, work on a long-range plan that will allow installation of facilities in areas where, in accordance with the land use plan, development is desired.
4. Continue partnership with the Soil and Water Conservation District and the NRCS-USDA staff to identify effective solutions to drainage problems while protecting water quality.
5. Request County Committee of 100 to take steps to update the inventory of industrial sites in accordance with the land use plan.
6. Explore feasibility of a program to remove abandoned, dilapidated mobile homes from the county.
7. Prepare information brochure for property owners and developers on best management practices for stormwater management and water quality protection.

Implementation Action Plan

Table 21 shows the implementation action plan for the CAMA Land Use Plan. The action plan is a separate section of the land use plan to avoid any confusion between policies and implementation measures and to allow the County and the Towns to focus on the steps and actions that are required to implement the policies for growth and development. Some of the policies contained in the plan are benchmarks for many land use decisions that will be made in coming years by the County, Towns, and property owners. Other policies require public action for implementation. These policies are addressed in the action plan.

The 12 actions outlined in the Action Plan in this section are an ambitious work plan for the County and other local organizations. We anticipate that these actions can be initiated within the 6-year planning period. However, it will be necessary to assess the work plan each year. This assessment will include several factors: funding availability, shifting priorities that may dictate rescheduling, adding or dropping projects, and project completion schedules.

Table 21
Pamlico County CAMA Land Use Plan
Action Plan and Schedule
2004-2011

Action	Responsibility	2004-05	2005-06	2006-07	2007-08	2009-10	2010-11
Review Subdivision Regulations • Consistency • Dry hydrants	County Planning Board		● →				
Amend Flood Damage Prevention Ordinance, floor level elevation	County Planning Board	● →					
Identify opportunities to reduce impervious surfaces	Planning Board				● →		
Consider regulation to address "junk yards"	Board of Commissioners		● →				
Update Shoreline Access Plan	Parks and Recreation, Tourism Committee				● →		
Identify options to "up-size" sewer	Board of Commissioners and BRMSD Board	● →					
Inventory Business Development Sites	Economic Development/Committee of 100		● →				→
Study and determine feasibility of removing abandoned mobile homes	Board of Commissioners	● →					
Brochure on best management practices	Cooperative Extension	● →					

APPENDIX

Required Policy Analysis

The planning guidelines require the local government to provide two types of analysis of its land use and development policies and the future land use map. Each analysis is described below.

Consistency of Plan with Management Topics

1. Consistency between goals and management topics – direction of policies.

Public access. The plan’s access policies are intended to provide “satisfactory access for residents and visitors to the county’s public trust waters for a range of activities.” The policies provide for additional access facilities in areas that are currently under-served. They also capitalize on the numerous private or informal access locations throughout the county. Finally, the access policies address public-owned land, such as flood buyout property, that may have potential for public access. The county intends to update its Shoreline Access Plan to incorporate these new policies and to provide more details on facility development.

Land use compatibility. The goal is to continue “land uses and land use patterns that are consistent with the capabilities and limitations of the county’s natural systems.” The plan protects the town’s wetlands and estuarine shoreline to ensure that their role in water quality is maintained. The plan recognizes the role of non-coastal wetlands and classifies them as conservation to encourage compatible development. The policies also ensure that land uses and facilities are designed in a manner that protects the biological, economic, and community values of estuarine waters.

The plan’s estuarine shoreline policy establishes a 75-foot conservation zone from mean low water landward where most construction is prohibited. The policy also establishes a minimum 100-foot frontage and 1-acre lot size for most waterfront lots. These policies exceed CAMA requirements.

Infrastructure carrying capacity. The plan’s infrastructure goal focuses on traffic flow and safety associated with expansion of NC 55 to a 5-lane facility from the Craven County line to Bayboro. Policies address land use patterns and site improvements that protect the capacity of this facility. In addition, the policies encourage the NCDOT to work with the Town of Bayboro to ensure that the final alignment through the town has minimal impact on proper-

ties that abut the road. The policies also support update of the county's Thoroughfare Plan to address changing levels of development.

Pamlico County is not directly involved in the provision of central sewer services. However, the policies encourage the Bay River Metropolitan Sewer District to consider priorities in the extension of wastewater facilities that support the county's desired development patterns.

The county provides drinking water virtually on a countywide basis. Policies support continued upgrade of this system.

Stormwater policies include a community education program and support of the existing state permitting system to address runoff, sedimentation, pollution, and flooding associated with development.

Natural and man-made hazards. The plan's goal is to "mitigate risks from storms and flooding." The plan includes two key policies to address this goal. First, the plan supports continued enforcement of the provisions of the flood damage prevention ordinance and the CAMA use standards for development in the high hazard flood area. Second, the plan recommends an increase in the minimum distance allowed between flood elevation and the floor joists of the lowest finished floor elevation.

The plan supports maintenance or improvement of the county's CRS rating.

Water quality. The plan's water quality goal is "high quality water in the county's rivers, creeks, and bays, and the Pamlico Sound." The plan employs several methods to address this goal. The plan creates a 75-foot permanent conservation zone along all water bodies. Generally, no construction is permitted in this zone. Second, the plan encourages very low-density development in water front areas – minimum 100-foot frontage and 1-acre lots on the water. The plan also incorporates existing state permits, such as Soil Erosion and Sedimentation, to address non-point source runoff.

Local concerns. The plan has two goals that embody local concerns. These are "land use and development patterns that preserve the county's rural character," and a "sound economic base that generates jobs for residents who wish to work in the county..." Four groups of policies address these goals: 1) economic development; 2) resource-based industries; 3) community development; and 4) land use. Each group is summarized below.

- Economic development – The plan encourages development of second home and retirement communities as a job creation strategy and it recognizes that this strategy depends on clean water and protection of

natural resources. The plan also supports identification of sites for business and job development that are consistent with the county’s goals for environmental quality. And finally, the plan supports development of the county’s tourism industry.

- Resource-based industries – The plan encourages land use patterns that help protect the county’s traditional resource-based industries, such as farming, fishing, and forestry.
- Community development – Policies address three major elements related to community development: deteriorated, dilapidated housing, disposal of abandoned mobile homes, and screening and maintenance of “junk yards.” The policies support continued applications for funds to address housing issues and a county-local effort to address housing and abandoned mobile homes. The county will work on a strategy for “junk yards.”
- Land use – The policies focus on landscaping and other aesthetics of land uses and protection of the county’s highway corridors from a proliferation of driveways, strip commercial development, and other land use patterns that impact capacity and safety.

2. Consistency between future land use map and land use plan requirements.

A. Residential density. The residential densities depicted on the map are consistent with the capabilities of the county’s natural systems. Typical density levels are:

<u>Classification</u>	<u>Projected Gross Density</u>
Conservation	NA
Conservation II	75-foot conservation zone, no residential development
Towns/Community Centers	1 du/7.5 acre or greater
Rural with Services	1 du/15 acre in waterfront areas
Ag, Forestry and Rural Housing	1 du/75 acres

B. Comparison of environmental composite map, land suitability map, and future land use map. There are no material differences between these maps. All of the lower capability areas shown on the composite map and the lower suitability areas are classified as *conservation* on the future land use map.

C. Natural hazards.

- (1) Policies for land uses in the high hazard flood area adopt the CAMA use standards. The use standards ensure that risks to life and property in these areas are reasonable.
- (2) In flood hazard areas, the county will continue to enforce its flood damage prevention ordinance and the state building code to man-

age risks. Plan supports increase in the distance between flood level and joist of 1st finished floor.

- (3) The county's major evacuation infrastructure is NC 55. NCDOT is in the process of upgrading this facility to 5 lanes. Plan also supports updating the county's thoroughfare plan with storm and hurricane evacuation a major consideration.

D. Protection of shellfishing waters.

- (1) The residential land use patterns depicted on the **future land use map** are very low density and are designed to limit non-point source pollution, one of the main culprits in the closure of shellfish harvesting areas. More intensive development is directed toward the existing incorporated areas where services are available and AECs are less prevalent.
- (2) The plan requires that all waterfront lots be a minimum of 1-acre and have at least 100 feet of frontage. These restrictions on shoreline density will help protect shellfishing waters.
- (3) Coastal wetlands, non-coastal wetlands, the estuarine shoreline, and the estuarine waters are classified as **conservation**. Only those uses that are consistent with the biological functions of these systems are permitted. In addition, the plan continues a conservation zone that extends from mean low water and extends landward for 75 feet, where most construction is prohibited.

Analysis of the Impact of Policies on Management Topics

The planning guidelines require the local government to analyze the impacts of its land use and development policies on the *management topics*. The analysis must describe both positive and negative impacts. If there are any negative impacts, then there must be policies to mitigate the negative impacts.

The impacts of Pamlico County's policies on the management topics are shown in the matrix in Table 22. According to this analysis, all of the policies have either a beneficial or neutral impact on the management topics. No mitigation policies are required.