Craven County

1712

LAND USE PLAN UPDATE

TALBERT, COX & ASSOCIATES, INC.

An Espey, Huston Company

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CRAVEN COUNTY, NORTH CAROLINA
LAND USE PLAN: 1987 UPDATE

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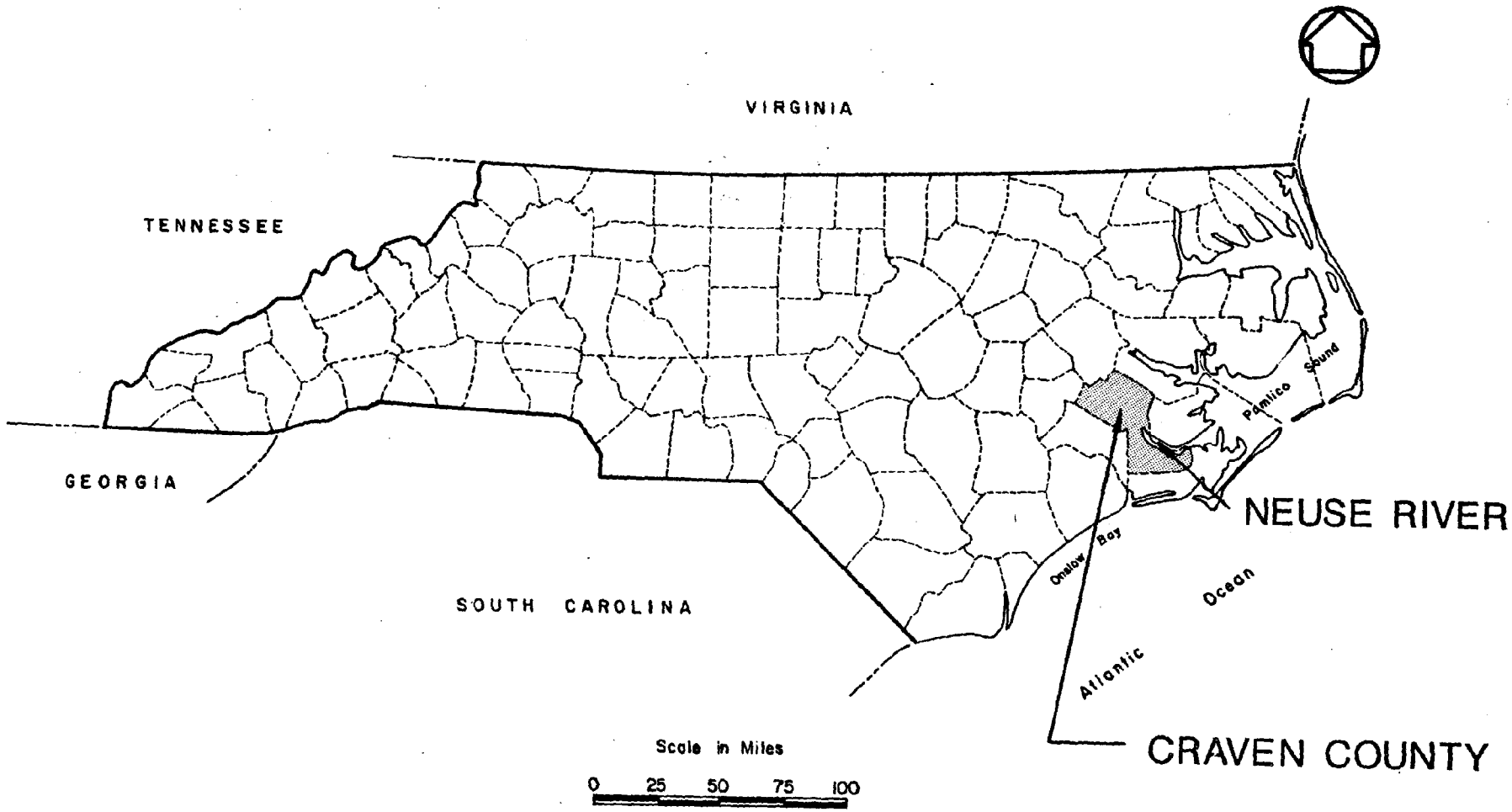

MAP 1
Location Map

CRAVEN COUNTY, NORTH CAROLINA
LAND USE PLAN: 1987 UPDATE

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CRAVEN COUNTY
LAND USE PLAN UPDATE, 1987
Analysis of 1982 Policy Statements/Implementation Actions

The CAMA Land Use Plan for coastal communities is essentially a policy document aimed at guiding localities toward sound growth management. Because circumstances, conditions, and issues change over time, the Coastal Resources Commission, under State law, requires the local land use plans to be updated every five years in order to "take a second look" at old policies for their relevance as well as examine newly emerging trends and concerns. The Commission is also requiring in all 1987 updates an assessment of the previous policy statements and implementation steps taken to effectuate them. This summary analysis of the 1982 policies is being presented to the Planning Board as a "Preface" to the 1987 Plan Updating process. A review of the current status of 1982 policies and proposed actions will help identify newly emerging issues.

DEVELOPMENT ISSUES

Policy/Implementation	Status/Relevancy Actions
A. RESOURCE PROTECTION	
1. POLICY: ESTUARINE SYSTEMS - To continue the local permitting process of allowing minor development forms in all estuarine and public trust waters. These development forms shall consist of activities requiring water access and use which cannot function elsewhere such as simple access channels; structures to prevent erosion; navigation channels; boat docks; marinas, piers, wharfs, and moving pilings. IMPLEMENTATION - The County would continue issuing local permits through its Building Inspection Department.	1. Ongoing concern, continually implemented as stated. The County now believes that more emphasis should be placed on water quality efforts in upstream locations.
2. POLICY: UNIQUE GEOLOGICAL FORMATIONS - The Craven County Planning Board will secure information pertaining to the location, nature and value of each area with unique geological formations and will use this information in approving development plans in adjacent areas. IMPLEMENTATION - The Planning Board will use the available services of the Planning Department to implement this policy.	2. Not Implemented. Unable to acquire information in sufficient detail upon which to base such decisions.

Policy/Implementation	Status/Relevancy Actions
3. POLICY: OTHER SIGNIFICANT AREAS:	
a. The flood plain policy of Craven County is to continue participation in the National Flood Insurance Program as a means to promote good land development practices and to protect the citizens of the County.	a. The County, as of May 1, 1987, began participation in the "Regular Phase" of the National Flood Insurance Program and has adopted a Flood Damage Prevention Ordinance.
b. The County's policy on peat mining/pocosin development is to await the final preparation of the State's natural area inventory and the National Forest Service's planning document before evaluating actions required to serve the County's interest in protecting areas of significant peat deposits from adverse impacts. The County's policy will be based on the desired futures of the National Forest Service for the Croatan National Forest.	b. This issue is no longer considered relevant because the incidence of peat reserves within the County's jurisdiction is not economically mineable.
c. The policy of Craven County with respect to pocosins and shoreline erosion is to undertake an investigation into the problems associated with pocosin development and shoreline erosion and, more particularly, the immediate effects of these areas on the Big Pocosin and on the Neuse River. IMPLEMENTATION: The Planning Department will be asked to provide information relating to the local effects of pocosin development and shoreline erosion as its schedule allows.	c. Not Implemented.
4. POLICY: AREAS OF HISTORICAL SIGNIFICANCE - Craven County should become more aggressive in promoting its historical past and utilize current and available archaeological and historical preservation information in its planning programs.	4. Partially implemented. Information has been obtained from the N.C. Division of Archives and History concerning the presence of County historical resources.

Policy/Implementation	Status/Relevancy Actions
IMPLEMENTATION: The County will rely on its staff and area residents, especially those connected with the New Bern historic program, to assist it in developing the appropriate information and tools for use in its planning programs.	
5. POLICY: HURRICANE AND FLOOD EVACUATION - To continue the test and make ready all emergency procedures outlined in the hurricane evacuation plan and to make certain that all members of the support group know their roles in the hurricane evacuation plan.	5. In 1984, the County received a grant from the Division of Coastal Management and developed a separate set of policies regarding Storm Hazard Mitigation, Post-Disaster Recovery, and Hurricane Evacuation.
IMPLEMENTATION: (None Discussed)	
B. RESOURCE PRODUCTION	
1. POLICY: PRODUCTIVE RESOURCES	
a. Productive Agricultural Land	a. Ongoing Concern.
Productive agricultural lands should be protected from urban development to the greatest extent possible. The County will use the assistance of the Soil Conservation Service and other agencies to promote sound subdivision growth in rural areas without impacting prime farm lands. However, in those areas designated for growth, the County, through development controls and public services, will encourage development forms that may impact farming operations. In these areas, primarily along the Neuse River, the main policy will be one of an urban orientation.	
b. Commercial Forest Lands	b. Ongoing Concern. However, lesser of the most valuable commercial forest lands appear to be being cleared.
The location and use of commercial forest lands will become a more complex issue as forest production as a source of economic development is balanced against forests as a barrier to development. This	

Policy/Implementation	Status/Relevancy Actions
dilemma will not be serious in the areas north and west of the urban corridor but may become serious in Townships 6 and 7 where commercial forest and the National Forest restrict development. In the latter case, the County will use its development controls to minimize these impacts but recognizing that at some time the County will need to encourage land being made available for growth from commercial timber stands.	
c. Mining	c. The National Forest Service has not yet completed its New Master Plan.
Based on available information, the only commercial grade peat area in Craven County is in the National Forest. However, until the National Forest has completed its long-range plan and RARE II studies and developed a use plan, the County is not in a position to adopt a mining policy. The County will use the National Forest Service Plan and the CEIP funded national areas inventory to formulate a peat mining and natural resources policy when more current and detailed data is available.	
IMPLEMENTATION: (None discussed)	
C. ECONOMIC AND COMMUNITY DEVELOPMENT	
1. POLICY: RESIDENTIAL DEVELOPMENT	1. Continual concern and nearly completely implemented. The County Subdivision regulations were revised in 1982. Also, since the last Plan Update, the County has applied for and received three (3) Community Development Block Grants aimed at housing rehabilitation and other community revitalization activities. Although planning was part of each application, no
The County will continue to encourage high quality residential development through its subdivision review process; to seek out additional sources of low-income housing rehabilitation assistance; and will begin to develop a detailed housing strategy that recognizes the various housing needs in the County.	
IMPLEMENTATION - The County Planning Board will accept as one of its on-going projects, to analyze and	

Policy/Implementation	Status/Relevancy Actions
review current housing need and to develop detailed plans to meet this need. With the help of the staff, it will seek to prepare a housing plan.	separate housing needs plan has been developed.
2. POLICY: INDUSTRIAL DEVELOPMENT To provide a solid economic base on which to add new employment sources at higher skill levels and wage rates. In addition, the attraction of industry is seen as a major County function requiring the efforts and talents of all County citizens. The County will commit its resources and best efforts to this goal. IMPLEMENTATION - The Craven County Industrial Commission and its staff serve as the major implementors of the County's industrial development policy.	2. Ongoing Concern; and implemented. Since the 1982 Plan, seven new industries have located in the County. Also, the County has established a Tourism Development Authority and has officially joined the "Keep America Beautiful" campaign, to continually promote the area's attractiveness.
3. POLICY: COMMERCIAL DEVELOPMENT To encourage major commercial facilities to locate in areas providing good access and reduced off-site impacts to existing developments. To promote appropriate neighborhood and small area shopping centers offering a high level of convenience and access and supporting, not detracting from, surrounding residential areas. IMPLEMENTATION - This policy shall be carried out by the Planning Board and staff by careful consideration and enforcement of land use plans and controls.	3. Ongoing Concern; policy continually being implemented.
4. POLICY: COMMITMENT TO PROVIDING SERVICES TO DEVELOPMENT To continue to provide a high level of support services to meet the requirements of the future population. This is especially critical in Townships 2, 5, 6, 7 and 8 where most of the growth will occur.	4. Implemented and expanded to include the provision of water services to Townships 1, 3, and 9. Studies on water service have been completed or are being prepared for Townships 2 and 5.

Policy/Implementation	Status/Relevancy Actions
IMPLEMENTATION - (None discussed)	
4. URBAN GROWTH PATTERNS The urban corridor in Townships 6, 7, and 8 is slated to receive most of the future growth and will be able to do so. The remainder of the County, with the exception of transition areas such as Dover and Cove City, should be reserved for farming, forestry, and very low density development.	4. Townships 6, 7, and 8 are still growing; however, so is Township 2. Also, because of the development of centralized water in Townships 1, 3, and 9, more of those areas may need to be classified as "transition."
IMPLEMENTATION - (None discussed)	
5. CHANNEL MAINTENANCE Craven County supports efforts to maintain safe and adequate channel depths and widths in both the Neuse and Trent Rivers.	5. Ongoing Concern.
IMPLEMENTATION - (None discussed)	
D. CONTINUING PUBLIC PARTICIPATION (No "Policy Statement" Declared)	D. Policies are included in the 1987 Plan Update.
E. SPECIAL LOCAL ISSUES	
1. POLICY: NEUSE RIVER WATER QUALITY The County Commissioners have stated that the deteriorating water quality of the Neuse River will be the major land use problem in the 1980's. However, the issue has such a magnitude and crosses so many governmental boundaries and involves so many apparently yet unresolved scientific issues, that the County must rely on State and federal authorities for guidance and leadership. After years of neglect, the County hopes that this assistance will be forthcoming in a scale similar to that now being done on the Chowan River.	1. The County, while continually supportive of local efforts to enhance water quality, believed strongly that state-wide efforts should focus on mitigating stream pollutants in upstream locations. In January 1988, the entire Neuse River Basin received the special designation of "Nutrient Sensitive" waters, which will require over a period of years certain actions to reduce point and non-point sources of pollution.
IMPLEMENTATION - (No Clear Implementation Statement)	

Policy/Implementation	Status/Relevancy Actions
2. Waterfront Development (No Policy discussed)	2. The County is concerned that adequate public access be established in water-front developing areas.
3. Impact of Cherry Point (No Policy discussed)	3. Current concerns of the County relate to noise, accident potential and the acquisition of land for avigation easements.

SECTION I :
Analysis of Existing Conditions
and
Projected Demand

CRAVEN COUNTY CAMA LAND USE PLAN

A. Establishment of Information Base

This 1987 Land Use Plan Update for Craven County is being prepared in accordance with requirements of the North Carolina Coastal Area Management Act (CAMA). Specifically, this document complies with Subchapter 7B, "Land Use Planning Guidelines," of the North Carolina Administrative Code, as amended, June 1985.

The initial CAMA Land Use Plan was prepared for Craven County in 1975, and the first update in 1982. According to the Land Use Planning Guidelines, the major purpose of periodic updating of local land use plans is to identify and analyze newly emerging community issues and problems. An additional element which must be addressed which was not required in either the 1975 Plan or the 1982 Update is "Storm Hazard Mitigation, Post-Disaster Recovery, and Hurricane Evacuation Plan." This element is designed to help local governments coordinate effective policies and actions relating to the impact of hurricanes or other severe storms.

The guidelines further give the following objectives the update should meet:

- -- to further define and refine local policies and issues;
- -- to further examine and refine the land classification system and the land classification map;
- -- to assess the effectiveness of the existing land use plan and its implementation;
- -- to further explore implementation procedures, and;
- -- to promote a better understanding of the land use planning process.

Both the 1975 Land Use Plan and the 1982 Update provided some of the needed information base for this most recent update. However, in many cases, new information had to be developed. A number of data sources were tapped during the preparation of this plan in order to prepare updated analyses of population, housing, economics, and existing land uses. Most of the data came from primary and secondary sources in the form of direct contacts with representatives of various state and federal agencies and/or previously published documents or reports. Interviews were conducted with various County officials. Efforts were made to obtain data that was as up to date and accurate as possible.

B. Present Conditions

1. Population:

Craven County, although located in predominantly rural Southeast North Carolina, is one of the fastest growing counties in the eastern half of the State and is increasingly becoming more "urban." Table 1, below, shows the decennial population of Craven County from 1940 to 1980, with 1986 estimates and projections to 1991 and 1996.

Table 1: Craven County Population: 1940-1980, With Projections to 1996

Year	Population	Num. Change	Pct. Change
1940	31,298	--	--
1950	48,823	17,525	56.0
1960	58,773	9,950	20.4
1970	62,554	3,781	6.4
1980	71,043	8,489	13.6
*1986	82,560	11,517	16.2
*1991	92,079	9,519	11.5
*1996	101,656	9,577	10.4

Source: U.S. Census

*Projections by the N.C. Office of State Budget & Management

Currently, the 1986 projected population for Craven County is 82,560, according to State demographers. The population of Craven County has seen steady growth, although with fluctuating rates of growth for all of the census reporting periods shown in the above Table. The largest growth took place between 1940 and 1950, spurred by the establishment and growth of the Marine Corps Air Station at Cherry Point near the then small village of Havelock, beginning in 1941. Growth continued through the 50's, 60's, 70's and now at a stepped up pace, through the 1980's.

In fact, according to 1986 projections provided by the North Carolina Office of State Budget and Management (OSB&M), Craven County's population during the six years since the official 1980 U.S. Census has already exceeded the 10-year growth recorded between 1970 and 1980 by an astounding 37 percent. From 1980 to 1986, the County gained 11,517 persons -- almost 2,000 residents per year -- compared to the 1970-80 gain of 8,489 persons (about 850 persons per year). This strong growth trend is projected by State demographers to continue through the next 10 years, so that

by 1996, the County's population will be nearly 102,000 persons. This is an increase of nearly 20,000 persons in 10 years. Obviously, the historical and projected population trends in Craven County are very significant factors in the development of a Land Use Plan.

a. Dispersal of Population

1) Urban-Rural

Along with the increasing overall growth in Craven County's population during most of this century has come increasing urbanization. Notice Table 2, below, which shows the dramatic rural to urban shift since 1960.

In 1960, nearly three-fourths of the county's residents (43,056 persons) were classified as "rural" that census year. However, as shown in Table 1, between 1960 and 1970, the number of residents classified as "urban" more than doubled

TABLE 2: Urban-Rural Population Trends in Craven County 1960-1980

	1960	*%	1970	%	1980	%
Urban	15,717	(29)	34,549	(55)	35,228	(50)
Rural	43,056	(73)	28,005	(43)	35,815	(50)
Total	58,773		62,554		71,043	

Source: U.S. Census of Population 1970, 1980

*Percentages are rounded.

to comprise over one-half of the County's population. And although according to the 1980 Census, the "rural" population grew more than the "urban" sector, the total 1980 rural population is still significantly less than the 1960 rural total. Also, the significantly increased population called "rural" bewteen 1970 and 1980 may be somewhat misleading. This classification is more likely indicative of the increased "suburban" and even "extra-suburban" residential development taking place adjacent to, but outside of, the larger municipalities of New Bern and Havelock as well as sizeable planned unit developments such as Fairfield Harbor. Because of their proximity to, demand for, and reliance upon urban services, these areas are essentially "urban" in character instead of "rural."

2) Municipal Populations

Currently, there are eight (8) incorporated municipalities in Craven County. New Bern is the county seat and was, historically, by far the largest municipality in the county. However, in 1980, Havelock annexed the Marine Corps Air Station at Cherry Point and "overnight" became the county's most populous municipality. Notice Table 3, below.

TABLE 3: Craven County Municipal Population

	April 1970 Census	April 1980 Census	July 1984 Estimate
CRAVEN COUNTY TOTAL	62,554	71,043	76,807
Bridgeton	520	461	491
Cove City	485	500	541
Dover	585	600	619
Havelock	3,012	17,718	21,608
New Bern	14,660	14,557	17,706
River Bend	*	959	1,584
Trent Woods	719	1,177	1,511
Vanceboro	758	833	922
Municipal Total	20,739	36,805	44,982

Source: N.C. Office of State Budget & Management.

*Not yet incorporated.

The municipal proportion of the County's population has seen steady growth in recent years and because of the feasibility of annexation, it is quite possible for this proportion to increase in the future.

3) Townships

Craven County is divided into eight (8) Townships. The populations of these townships are shown in Table 4, page 4, for 1940 through 1980. Map 2, next page, shows the boundaries of the Townships. The most populated Townships are those containing New Bern, Havelock, Trent Woods and River Bend; i.e., Townships 8, 6 and 7. Township 2, however, which contains the Fairfield Harbor development, had the fastest rate of growth between 1970 and 1980.

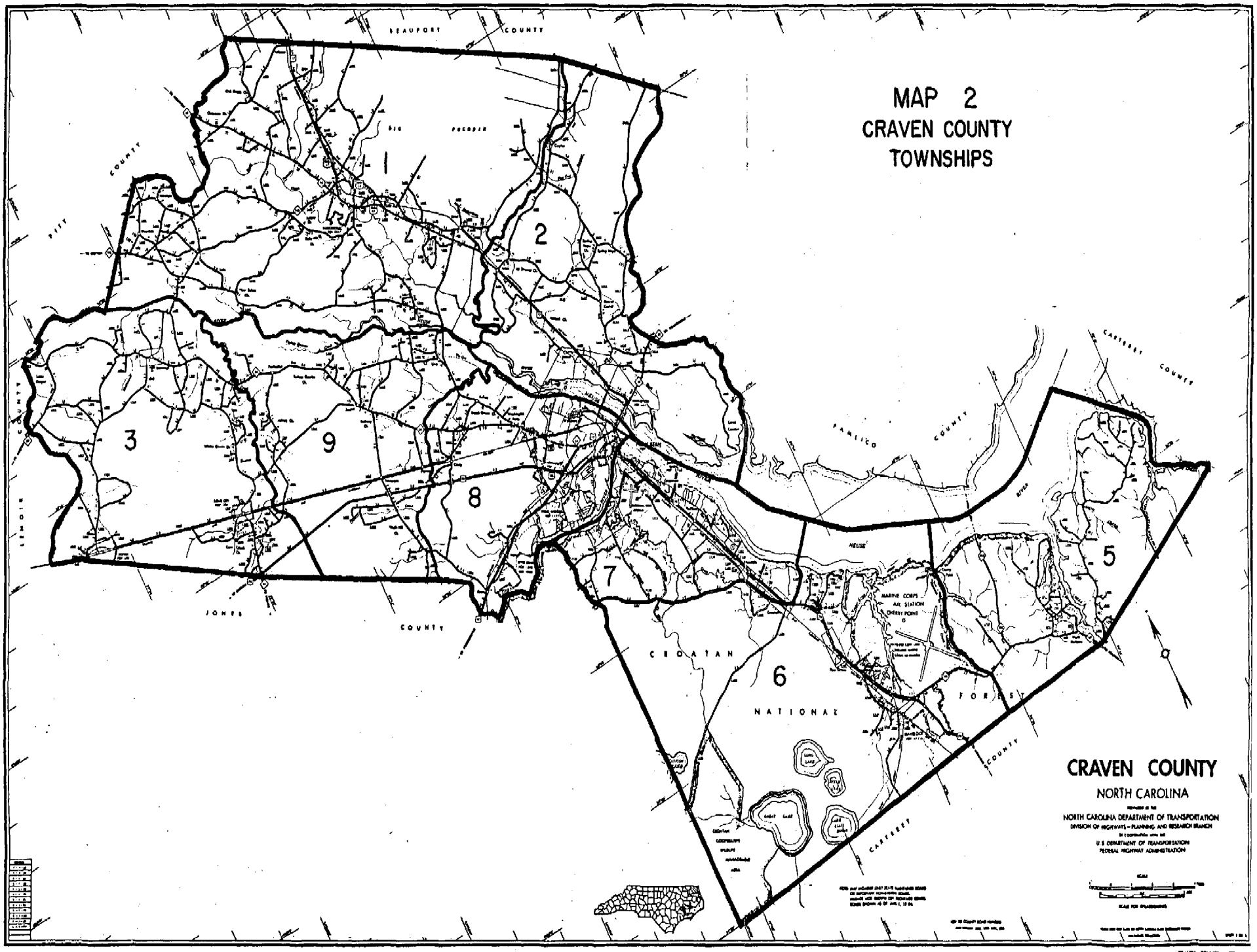

MAP 2
CRAVEN COUNTY
TOWNSHIPS
BEAUFORT COUNTY
PAMLICO COUNTY
CARTERET COUNTY
JONES COUNTY
CROATAN NATIONAL FOREST
MARINE CORPS AIR STATION (CHERRY POINT)
1
2
3
5
6
7
8
9
CRAVEN COUNTY
NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - PLANNING AND RESEARCH BRANCH
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

TABLE 4

POPULATION CHANGE, BY TOWNSHIP, CRAVEN COUNTY
1940-1980

Township	1940	1950	1960	1970	1980	Total % Change 1970-1980
Township 1	5,486	5,494	5,310	4,946	5,359	8.4
Township 2	1,874	2,471	3,003	3,257	4,414	35.5
Township 3	3,957	4,398	4,315	3,837	3,803	-1.0
Township 5	1,428	1,333	1,823	2,047	2,551	24.6
Township 6	723	11,695	18,053	20,798	21,963	5.6
Township 7	1,662	2,632	3,887	4,757	6,149	29.3
Township 8	14,337	18,952	20,686	21,125	24,645	16.7
Township 9	1,831	1,848	1,696	1,787	2,159	20.8
Total	31,298	48,823	58,773	62,554	71,043	13.6

Source: 1982 Land Use Plan; Update 1980 Census.

b. Composition

Table 5 below shows the racial and sexual proportions of Craven County's population from 1960 with projections through 1996.

TABLE 5

Historical and Projected Racial Composition:Craven

Year	White M	White F	Total (%)	Non-White M	Non-White F	Total (%)
1960	21,858	19,906	41,764(71%)	8,216	8,793	17,009(29%)
1970	24,756	21,556	46,312(74%)	7,777	8,465	16,242(26%)
1980	26,409	23,999	50,408(71%)	10,102	10,533	20,635(29%)
*1986	29,874	27,073	56,947(69%)	12,577	13,036	25,613(31%)
*1991	32,536	29,650	62,186(68%)	14,694	15,199	29,893(32%)
*1996	35,258	32,466	67,724(67%)	16,643	17,289	33,932(33%)

Sources: U.S. Census; N.C. Office of State Budget & Management

*Projections by Office of State Budget & Management.

The racial composition of Craven County's population has not changed dramatically since 1960 and is projected to continue at roughly the same existing proportions, i.e., about two-thirds white and one-third non-white. The percentage of non-white, however, is projected to increase slightly by 1996. According to the 1980 U.S. Census, about 93% of the non-white population consists of Blacks, with the rest being composed of persons of Spanish origin, Asians and Pacific Islanders and American Indians.

Table 5 also shows that the male-female ratio in Craven County (currently about 48% female and 52% male) will likely remain stable throughout the period. It should be noted that among national and statewide trends, it is more usual to find the number of females slightly outnumbering males. But in Craven County, the reverse is true and is likely the result of the presence of the Marine Corps Air Station at Cherry Point.

As far as age groupings are concerned, it is interesting to note that according to 1986 projections by State demographers, the school-age population in Craven County, i.e., from 5-19 years old, has peaked and is projected to decline. This age group currently composes about one-third of the total population (32.7%). Notice Table 6, below:

TABLE 6: Selected Age Group Summary: 1986-1996

Selected Age Group	1986	% Total Pop.	1991	% Total Pop.	1996	% Total Pop.	Total No. Change 86-96
5-19	26,983	32.7	20,869	22.6	22,793	22.4	-4,190
20-59	45,096	54.6	50,132	54.4	55,456	54.6	10,360
60+	10,481	12.7	12,627	13.4	14,462	14.2	3,981

Source: N.C. State Data Center, Office of State Budget and Management

From 1986 to 1996, according to the State Data Center projections, the school-age population is projected to decline to about 22%, with a net numerical loss in this age group of -4,190 persons. This trend, if such projections are accurate, would have serious implications for the planning and development of school facilities and services. However, the demographic projections are in conflict with projections prepared by the State Department of Education, which shows an overall increasing trend in the number of school-age children in Craven County. This issue will be discussed further under Capacity of Community Facilities. (It should be noted, however, that other external factors such as immigration of more younger families could easily alter State demographic projections.)

The middle grouping of working adults (20-59) is projected to maintain a stable proportion of the total population, i.e., about 55%, and increase numerically by 10,360 persons from 1986 to 1996. This trend is very significant to land use planning, e.g., where will people live? This is an issue to be addressed in the policy section of this plan.

Finally, the 60 and older population in Craven County is also projected to increase moderately from 1986 to 1996, growing from 12.7% to 14.2% of the total population, representing a net numerical gain of 3,981 persons. Facilities and services for the aging will also be a very relevant planning issue in Craven County.

2. Economic Analysis

a. General

The economic picture for Craven County has steadily been improving. The County's economic base is no longer primarily agricultural income, but has increasing diversification. Other significant elements of Craven County's economy include tourism, manufacturing, commercial forestry, commercial fishing, and the Marine Corps Air Station at Cherry Point is a major civilian employer. Existing economic conditions are discussed in more detail, below.

b. Agricultural

Total farm income has declined since 1981, as Table 7, page 9, shows. Between 1982 and 1983, regular farm income actually decreased by nearly 6 million dollars. Even when government payments, particularly the Payment-in-Kind (PIK) program, which was a one-year program in 1983, are taken into account, total farm income in 1983 was still 17% less than that for 1982. Field crops, most notably flue-cured tobacco, soybeans, and corn, produce the most farm income. Notice Table 7 on the following page.

Table 7: Craven County Crop Production Income: 1981-1985

Crop	1981	1982	1983	1984	1985
Field Crops					
Flue-Cured Tobacco	$20,756,830	$21,977,251	$18,124,282	$17,522,041	$14,759,708
Maryland Tobacco	2,079	—	—	—	—
Peanuts	32,937	22,772	20,552	36,802	34,363
Corn for Grain	6,743,389	5,083,331	4,874,716	4,774,938	2,485,035
Wheat	1,189,188	1,008,420	437,693	1,254,240	257,616
Oats	65,550	—	14,784	19,672	16,913
Grain Sorghum	11,849	22,050	2,904	49,640	3,600
Soybeans	5,591,175	4,839,712	3,376,931	3,810,797	1,548,424
Hay	5,525	6,930	—	—	5,200
Barley	—	—	10,320	6,486	—
Vegetables & Berries					
Irish Potatoes	126,875	107,625	100,625	—	5,400
Sweet Potatoes	69,000	73,200	144,000	46,200	24,000
Cabbage	173,160	150,000	195,000	150,000	87,000
Canteloupes	97,387	48,696	68,910	825	500
Corn, sweet (5 doz.)	42,200	57,000	88,000	105,000	33,250
Cucumbers-processing	32,160	40,200	39,375	7,125	4,750
*Leafy greens	45,000	56,250	52,500	17,600	12,600
Okra	—	40,000	—	—	—
Peppers-fresh market	—	—	37,920	4,350	4,200
Peppers-processing	23,250	23,400	—	—	—
Snap Beans-fresh market	26,784	35,712	45,000	9,300	5,000
Southern Peas	32,725	32,725	44,000	8,000	6,200
Squash	—	3,000	4,800	2,440	2,200
Tomatoes	—	4,435	9,660	5,040	9,000
Watermelons	5,544	5,544	4,950	1,350	560
**Other Vegetables	—	—	—	1,000	1,500
Blueberries	1,176,000	636,120	581,400	607,500	115,190
Strawberries	123,000	135,000	102,000	35,000	10,800
Fruits and Nuts					
Pecans	10,500	13,000	13,600	9,300	—
Grapes	23,850	24,075	24,300	6,820	6,320
Nursery & Greenhouse					
Greenhouse crops	137,250	137,250	139,500	139,500	35,000
Outdoor flowers	3,600	3,600	3,600	1,200	2,000
Ornamental shrubs & trees	250,000	250,000	250,000	250,000	250,000
Subtotal	$36,796,807	$34,837,298	$28,811,322	$28,882,166	$19,726,329
Government Payments	141,477	44,445	571,552	79,572	442,472
TOTAL CROP PRODUCTION INCOME	$36,938,284	$34,881,743	$29,382,874	$28,961,738	$20,168,801

*May include collards, kale, mustard, spinach, and turnip greens.
**May include asparagus, beets, broccoli, cauliflower, celery, dry beans, lettuce, lima beans, onions, rutabagas, and other minor vegetables

Source: Data Worksheets of Cash Farm Income - 1985, 1984, 1983, 1982, and 1981, Craven County Agriculture Extension Office

Livestock production, mostly hogs, accounts for the majority of the rest of farm income. Income from hog production and from beef production declined during the period 1982-1984, but increased significantly in 1985. Notice Table 8, below.

Table 8: Craven County Livestock and Livestock Product Income

Year	Dollar Value
1982	$9,342,158
1983	$6,939,296
1984	$6,904,550
1985	$10,552,881

Source: Estimated Income from Sale of Farm Products and Government Payments, By County, Extension District, and State of North Carolina for 1982, 1983, and 1984; N.C. Agricultural Extension Service, N.C. State University, Raleigh, North Carolina

It is interesting to note that, perhaps consistent with national trends, the number of farms and total farm acreage in Craven County is declining. According to the 1982 U.S. Census of Agriculture, between 1978 and 1982, the total number of farms declined from 701 to 562 during the period. This decrease by 139 farms represents a total decrease of 20%, or about 27 farms per year. However, it appears that some smaller farms became part of larger ones, since although the number of farms declined, the average size of each farm rose from 152 acres in 1978 to 164 acres in 1982. This trend of fewer, but larger farms in Craven County is significant.

c. Commercial Forestry

Table 9: Craven County Forestry Income, 1981 - 1986

	1981*	1982*	1983*	1984*	1985*	1986*
Pulpwood	$1,478	$1,681	$ --	$1,448	$2,158	$1,290
Lumber	5,575	6,918	--	9,115	6,114	3,431
Other Forest Products	--	17	--	--	--	--
Total	$7,053	$8,616	$ --	$10,563	$8,272	$4,721

Source: N. C. Agricultural Extension Service, Annual Estimates of Cash Farm Income
*In thousands of dollars

Overall forestry income in the County increased from 1981 to 1982, jumped from 1982 to 1984 (1983 figures not available), and dropped significantly from 1984 to 1986. Forestry income has been quite irregular.

d. Commercial Fishing

A substantial amount of commercial fishing occurs both in the Pamlico Sound and in the Neuse River. Although the total poundage for Craven County fluctuated between 1981 and 1983, and there was a slight decrease in dollar value from 1983 to 1984, dollar value for 1985 increased by a substantial 90% over the 1981 dollar value. However, for 1986, as poundage decreased, so did the dollar value by 36%. Overall, from 1981 to 1986, dollar value increased by 85%. Notice Table 10, below:

Table 10: Craven County Commercial Fishery Income, 1981-1986

Year	Pounds (Total Catch)	Dollar Value
1981	115,960	$ 33,127
1982	59,853	101,171
1983	485,140	268,372
1984	558,570	204,978
1985	857,433	342,586
1986	688,710	218,442

Source: N.C. Division of Marine Fisheries

Craven County ranked 16th out of 20 of the State's coastal counties reporting commercial catches in 1986, a slight drop from 15th in 1985, consistent with 16th place for 1983 and 1984, and a jump over 17th for 1981 and 1982.

e. Manufacturing and Commercial Activity

Other major income sources for Craven County include income from manufacturing as well as from wholesale and retail trade and services. According to the U. S. Bureau of the Census' County Business Patterns, 1983, the annual business payroll fluctuated from 1980 through 1983, with a slight drop in 1982 and an overall increase of 20% in annual business payroll from 1980 to 1983. Notice Table 11, below:

Table 11: Craven County: Establishments & Payroll, 1980-83

	1980	1981	1982	1983
No. Establishments	1,244	1,256	1,161	1,328
Annual Payroll (000's)	145,954	162,508	161,819	184,602

Source: County Business Patterns, 1980, 1981, 1982, and 1983, U.S. Bureau of the Census

As Table 11 shows, overall, within the three-year period, 84 additional establishments were noted, and annual payroll increased by 38.6 million dollars (not accounting for inflation). This is a significant economic trend for Craven County.

f. Tourism

Income from tourism has been on the rise in Craven County and has a substantial impact upon the County's economy. Historic New Bern is an appealing riverfront community, stocked with colonial legend and lore and beautiful historic homes. The friendly shops and stores, pleasant restaurants, and exceptional "bed-and-breakfast inns" accommodations are attracting more and more people each year. Notice Table 12.

Table 12: Craven County Tourism Income 1981-1985

Year	Expenditures ($1,000,000)
1981	21.99
1982	19.41
1983	26.10
1984	26.16
1985	29.21

Source: N.C. Travel and Tourism Division, Department of Commerce

Craven County recognizes the increasing potential for the expansion of tourism in the County. In 1985, the County established a "Tourism Development Authority." This Authority was established to promote tourism in the County and was to be financed by revenues from the 3% room occupancy tax. In 1986, the first-year taxes were collected, the County received $139,000. The 1987 projections, because of the construction of three new motels in the County, is anticipated to increase to $175,000. Beginning July 1, 1987, the Authority will be staffed with a full-time director.

Somewhat related to tourism is the fact that Craven County has joined the "Keep America Beautiful" campaign, and as of January 1, 1988, will employ a local

coordinator. The local coordinator will also help promote the area's attractiveness.

g. Employment and Income

1. Employment

Overall employment in Craven County increased from 1982 to 1983, and again from 1984 to 1985, although the labor force decreased overall. Notice Table 13, below, which shows the general employment pattern from 1982 through 1985.

Table 13: Craven County Unemployment Rate, 1982-85

	1982	1983	1984	1985	Change 1982-85
Civil. Labor Force	30,210	30,550	27,840	29,780	-430
No. Employed	27,700	28,160	26,050	28,240	540
No. Unemployed	2,510	2,390	1,790	1,540	-970
Unemployment Rate	8.3	7.8	6.4	5.2	3.1
N. C. Unemp. Rate	9.0	8.9	6.8	5.4	3.6

Source: N. C. Employment Security Commission

As the data in Table 13 shows, Craven County's average annual unemployment rate, from 1982 through 1985, has been favorable when compared to the rate for North Carolina. From 1982 to 1985, the County's labor force decreased by a net of 430 persons, or by 1%. However, during the same period, the number of unemployed decreased by 970 persons, impacting favorably overall on employment conditions in the County, relative to other counties and the state as a whole. In 1985 (the latest year for annual statistics), Craven County had an unemployment rate substantially lower than that for North Carolina. Statistics for 1986 are expected to show continued improvement in the local employment picture.

In 1980, the largest occupational categories of the civilian labor force, according to the N. C. Employment Security Commission, Bureau of Labor Market Research, were managerial operators and fabricators (4,779/19%); precision production, craft and repair occupations (3,726/15%); operators and fabricators (3,647/15%); administrative support occupations, including clerical (3,495/14%); service occupations (3,329/13%); and sales occupations (2,818/11%).

2. Income

Although the income picture in Craven County has been improving, there are still a number of families and individuals below the poverty income level. The 1980 U. S. Census data showed that 2,869 (or 15.5%) of the County's 18,455 families (enumerated in 1979) had below poverty incomes.

Table 14: Craven County: Families Below Poverty Level, 1969-79

	1969		1979	
	No.	Percent	No.	Percent
Craven County	-	-	2,869	15.5
N. C.	-	16.3	-	11.6

Source: U. S. Census, 1970, 1980

According to the 1980 Census, Craven County's percentage of families with below poverty incomes is significantly higher than the state's percentage. Likewise, this was true for individuals with incomes below the poverty level, as noted in Table 15, below:

Table 15: Craven County: Persons With Incomes Below Poverty Level, 1969-79

	1969		1979	
	No.	Percent	No.	Percent
Craven County	-	-	12,318	18.5
N. C.	-	20.3	-	14.8

Source: U. S. Census, 1970, 1980

Percentage-wise, the improvement in Craven County was greater than for the state as a whole. Another measure of local income posture is growth in per capita personal income. Notice Table 16, below:

Table 16: Craven County: Per Capita Personal Income, 1979-83

Year	Craven County	N.C.	U.S.	Craven Co.'s Pct. of N.C.	Craven Co.'s Pct. of U.S.
1979	6,354	7,104	8,651	89%	73%
1980	7,289	7,774	9,494	94%	77%
1981	7,738	8,655	10,544	89%	73%
1982	8,707	9,148	11,113	95%	78%
1983	9,248	9,805	11,687	94%	79%

Source: U.S. Bureau of Economic Analysis; Neuse River Council of Governments

Per capita income has been increasing in Craven County. The County's per capita personal income is significantly below that of the state as a whole and substantially less than the U.S. per capita income.

h. Local Government Revenue Summary

Local government revenues, most notably from property taxes, also can be indicative of local economic trends. Notice Table 17, below. From 1982 to 1983, which was not a period of revaluation but real growth, assessed values rose by over $100 million in one year, which is quite substantial.

Table 17: Property Tax Values Craven County 1981-1985

Year	Assessed Value	% Increase	Tax Rate/100
1981	$ 791,169,076		.80
1982	850,020,396	7.4%	.80
1983	952,190,897	12.0%	.84
1984	1,032,680,356	8.5%	.80
1985	1,113,183,054	7.8%	.80

Source: Craven County Tax Office

i. Economic Summary

The analysis of current economic conditions indicates the following trends:

1. Agriculture is no longer a dominant force in the County's economic base. However, other income sources, notably tourism, manufacturing, commercial fishing, and forestry are increasing in importance.

2. Overall, income increased in Craven County between 1970 and 1980. Nevertheless, it appears that additional economic activity will be needed during the next 10 years if previous income gains are to be maintained.

3. Housing

The provision of adequate housing to shelter a population is always an important consideration for any jurisdiction. Notice the summary below in Table 18:

Table 18: 1980 Census Craven County Housing Summary

Item	No
Total Units	13,468
Vacant - Seasonal & Migratory	55
Year-Round Units	13,413
Vacant Year-Round Units	1,133
Occupied Year-Round Units	12,280
Persons in Households	66,763
Average Household Size	2.83

Source: U.S. Census, 1980.
N.C. State Data Center

It appears that Craven County has a significant vacancy rate, i.e., 8% of all year-round units in 1980. However, a number of these units may be considered "substandard" since only 418 were reported to be either "for sale" or "for rent" or "held for occasional use," and 715 listed as "other vacant," according to the Census. Although the Census does not have specific measures for "substandard" or "standard," the number of units lacking complete indoor plumbing for exclusive use provides some indication. The 1980 Census reported that 1,040 (7.8%) of the County's 13,413 year-round units lacked complete indoor plumbing for exclusive use, with 784 of the units being occupied and 256 vacant.

During land use surveys conducted in late 1986, it was noted that there was a significant number of units which appeared to be substandard scattered around the County. Most new construction appears to be taking place in Townships 6, 7 and 8.

Another notable housing trend is the growth of mobile homes in the County. The 1980 Census reported a total of 3,586 mobile home units. However, based on the best available data, between 1985 and 1986, permits were issued for the placement of 663 additional mobile homes, an average of 331 per year over the two-year period.

C. Existing Land Use Analysis

1. General Patterns

The general land use pattern has changed little since the 1982 Update. Notice Table 19, below, which was compiled from data contained in the Profile of North Carolina Counties, 1981.

Table 19: Major Land Uses in Craven County - 1981 Estimate

Category	Acres	% of Total
Land	459,900	91.6
- Farms	- 76,700	-15.3
- Urban & Built-up	- 6,600	- 1.3
- Forestland	-287,100	-57.2
Water	42,400	8.4
Total	502,300	100.0

Sources: Profile of North Carolina Counties, 1981

According to the U.S. Census of Agriculture, the amount of land in farms (including croplands, pasturelands, home sites, and woodlands) was 106,664 acres in 1978. However, the total acreage in farms in 1982 was 92,047 acres which was 14,617 acres less than the 1978 estimate. This loss of farm acreage is perhaps not only an indication of fewer but larger farms in the County, but also a modest conversion trend of farmland being used for non-farm or "urban" uses. The majority of the land area in Craven County is covered with forests, but there does appear to be a modest, but steady trend of conversion of forestland into other uses.

The primary "urban and built up" areas in the County are Township 8, and specifically, the City of New Bern, and Township 6, with the City of Havelock and 70 East in Township 7. Other "built-up" areas include Trent Woods and River Bend. As noted in the 1982 Update, the potential for significant urbanized development (mostly residential) exists in the Trent Woods and River Bend areas, and in the Bridgeton and Fairfield Harbour areas. Since the 1982 Plan Update, development has continually taken place in these areas-- almost exclusively residential. Additional information on existing land uses is presented in the following discussions. (See Map 3, Existing Land Use Map, attached.)

a. Residential Land Use

The primary concentration of residential land uses outside of the incorporated municipalities are newly

developing subdivisions on the "fringe" of these areas and in major developments such as Fairfield Harbour. (See Map 4, "Major Subdivisions; 1980-1986".) From 1980 through May, 1987, a total of 1,943 building lots were approved through the County subdivision review process. Although a number of these approved plats were for smaller subdivisions, a total of 1,544 lots were approved in developments consisting of 10 or more lots. Consistent with a trend identified in the 1982 Plan, most of the major subdivisions are being developed in Townships 2, 6, and 7, respectively. Additional unincorporated "crossroads" communities, usually consisting of a cluster of houses, one or two stores, a church, etc., are found along several of the major highways and secondary routes in the County. The most notable include Tuscarora, Askin, Fort Barnwell, Ernul, and Harlowe.

The subdivision ordinance for Craven County was revised, effective November 1, 1982. This ordinance includes standards and procedures for the development and subdivision of land, and is enforced by the Planning Department. From 1980 through mid-1986, the Subdivision of raw land into developable building lots has been a steadily increasing activity in Craven County, as mentioned earlier. As noted in the 1982 Plan, and as depicted on Map 4, the Townships attracting the most intense concentrations of "major" subdivisions are numbers 6, 8, and 7. However, the pattern appears to be shifting somewhat with Township 2 posting an increasing share of the total subdivision lots. This is primarily due to the growth of the Fairfield Harbor development in Township 2. Notice Table 20, below:

Table 20: Craven County Approved Building Lots, 1980-1986, By Township

Township Number	*Small Subdivisions	**Large Subdivisions	Total Lots	Percent
1	91	78	169	8.7
2	108	473	581	30.0
3	3	10	13	.7
5	15	28	43	2.2
6	40	420	460	23.6
7	75	293	368	19.0
8	31	215	246	12.6
9	36	27	63	3.2
	399	1,544	1,943	100.0

*Less than 10 lots in Subdivision:
**10 lots or more in Subdivision.

Source: Craven County Planning Department; Talbert, Cox & Associates, Inc.

In addition to the trends in Township 2, Table 20 shows that both Townships 1 and 9 have significant numbers of lots in relatively "small" subdivisions, i.e., under 10 lots per plat. This trend is quite notable since these two Townships, along with Township 3, are scheduled to receive centralized water services during the current planning period. (Additional discussion is under "Capacity of Community Facilities," page 37.)

It should also be noted that for the years 1984 through July, 1986, a total of 762 permits were granted for the construction of new conventional single-family dwellings, and for 1985-86, 663 permits for mobile homes*. This is a three-year combined total of 1,425 residential units, including "attached" single-family, two-family, and three- and four-family units. The average for conventional "stick-built" units during the period was 25 units per month, and 27.6 mobile home units per month. There is a strong trend of continuing residential development in the County.

*Records were not available for years 1983-84 for mobile homes.

b. Commercial Land Uses

The majority of commercial land uses is concentrated within the Cities of New Bern and Havelock, in shopping centers, malls, or the immediate environs adjacent to the Cities. Out in the County, however, commercial land uses are mostly scattered, with few concentrations. In other areas of the County, especially at crossroads communities, it is common to find small grocery stores with gasoline service pumps along major thoroughfares, such as U.S. Highways 17 and 70 and N.C. Highway 55.

c. Industrial Land Use

Outside of New Bern, off Highway 70, there is an industrial park, currently consisting of four industries. Other small industrial tracts are located in and around New Bern, Vanceboro, and Havelock. A large Weyerhauser plant is also located in the County. There is a proposal pending to develop a cogeneration power plant, using peat as the source of power within the City of New Bern. Also, a new 20,000 S.F. agriculture extension building is proposed to be located in the industrial park.

d. Institutional Land Uses

Institutional land uses generally consist of government uses, such as military installations, or religious and civic uses such as churches, cemeteries or clubs, or public recreational areas. The most significant tract of government-owned land beyond the immediate environs of Havelock is the Croatan National Forest, which consists of 157,000 acres. Other institutional uses, like commercial uses, are mostly concentrated within the municipalities or scattered throughout the County.

e. Land Use Summary

While the land use changes in Craven County since the 1982 Land Use Plan Update have not been dramatic, there are some additional emerging trends. Increasing residential development in Townships 6, 8, and 7, respectively, is continuing as expected. However, both Townships 1 and 9 have witnessed growth in the number of small-lot subdivisions. Mobile home placement has not become a significant factor over the past few years in the County. Although there has been some conversion of farmland into non-farm uses, the amount of land is not overwhelming, but still indicates a modest trend. Generally, existing land use patterns, as discussed above, are projected to continue through-

out the period covered by this 1987 Plan Update, i.e., 5-10 years. However, other factors affecting land use, such as the absence of centralized sewer and septic tank limitations, the provision of water in previously unserved areas (most notably Townships 1, 3, and 9 in the mostly rural western end of the County), the absence of, or possible introduction of zoning and other regulatory devices, could easily affect existing patterns. Another important factor affecting land use in the County is the growing interest on the part of the larger municipalities, i.e., New Bern, Havelock, and River Bend, in exercising their respective one-mile extra-territorial jurisdictions to better manage adjacent "urban fringe" growth. These issues, along with continuing coastal water quality concerns, will be addressed in other parts of this plan.

2. Significant Land Compatibility Problems

In the conventional application of the concept, there are few significant land compatibility problems in Craven County. A land compatibility problem is generally identified when two or more land use types are adjacent to each other and one is somehow restricted from expansion or existing in its present state or condition, because of adverse conditions caused by the other, thus discouraging additional investment. In the 1982 Plan Update, land compatibility problems were identified in specific areas, i.e., Townships 5, 6, 7, and 8. Each of these townships have development potential, but are subject to problems caused by proximity to rivers and to lands owned by the federal government. Development in some areas adjacent to the Neuse and Trent Rivers is somewhat restricted by soil conditions, and development in some areas adjacent to the Croatan National Forest and Marine Corps Air Station, Cherry Point, is restricted by efforts of the federal government to prevent or reduce encroachment upon those lands. As development continues, conflicts over land use may become more apparent and Craven County will need to coordinate land use activities with MCAS, Cherry Point, Havelock, and the Croatan National Forest. The presence of restricted military airspace and military overflights might also be considered under the general heading of land use compatibility problems. In some areas near the vicinity of MCAS Cherry Point, residential and other types of development might be discouraged because of this proximity.

3. Major Problems From Unplanned Development

Problems from unplanned development mentioned in the 1982 Plan Update include nuisance-type problems (e.g., inappropriate uses locating in residential areas and noise complaints in areas away from the Air Station). The deteriorating water quality of the Neuse and Trent Rivers also was cited as having an adverse impact upon local waste treatment discharge capacity, thereby hindering development activities. To some extent, these issues still are relevant. The County feels that the majority of water quality problems are derived from upstream sources. However, another problem is that since more development is taking place near already developed areas in Townships 6, 7, and 8 (i.e., New Bern, River Bend, and Trent Woods), it is becoming more and more difficult to distinguish which governmental jurisdiction actually has the land development "problem." For example, land uses on U.S. Highway 17 south near New Bern could conceivably be within close proximity to the fringe areas of both Trent Woods and River Bend. With development, especially new residential development, taking place in the south Highway 17 area, it will become more crucial than ever for all four jurisdictions to work cooperatively in order to assure well-managed and orderly growth. Thus, the question of appropriate regulatory jurisdiction has itself emerged as a problem from unplanned developments.

4. Areas Experiencing or Likely to Experience Major Land Use Changes

As cited earlier in this section, the more intense urban development in Craven County is taking place in Townships 6, 8, and 7, respectively, and will likely continue. However, more smaller subdivisions have been developing in the more rural Townships of 1 and 9. With the promise of centralized water in these two Townships (along with Township 3), low-density, large lot, but small subdivisions could develop. Township 2, principally because of the increased pace of development at Fairfield Harbour, will also experience continued major land use changes during the planning period.

5. Identification of Areas of Environmental Concern (AEC's)

Among the four broad categories of statutorily defined Areas of Environmental Concern (AEC's) for Coastal North Carolina, i.e., Estuarine System AEC's and Ocean Hazards AEC's, only the Estuarine System is applicable to Craven County. Although these AEC's have not changed, it may be useful to define these important areas prior to listing them again in this Update.

a. Coastal Wetlands

Coastal wetlands or marshlands are defined as any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial watercourses), provided this shall not include hurricane or tropical storm tides.

Coastal marshlands also contain some, but not necessarily all, of specific marsh plant species. There are no coastal wetlands or salt marshes of any major significance in Craven County. Although a significant amount of the County is traversed or bordered by two major rivers, the occurrence of statutorily defined CAMA "wetlands" is not very extensive. However, there are some technical "wetlands" along the upper reaches of the Neuse River and some adjacent creeks, and possibly along narrow segments of the Trent River. Most of what could be termed "wetlands" actually consists of a few areas of wooded swamps in the lowlands near the two rivers. (It should be noted that for CAMA permit granting purposes, actual on-site investigations are required in order to determine the extent of technical "wetlands.")

b. Estuarine Waters and Estuarine Shorelines

Estuarine waters are defined in G. S. 113A-113(b)(2) as "all the water of the Atlantic Ocean within the boundary of North Carolina and all the waters of the bays, sounds, rivers, and tributaries thereto seaward of the dividing line between coastal fishing waters and inland fishing

waters, as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development filed with the Secretary of State, entitled "Boundary Lines, North Carolina Commercial Fishing -- Inland Fishing Waters," revised to March 1, 1965."

Estuarine Shorelines are those non-ocean shorelines which are especially vulnerable to erosion, flooding, or other adverse effects of wind and water and are intimately connected to the estuary. These shorelines can be wetlands as well as dry land. This area extends from the mean high water level or normal water level along the estuaries, sounds, bays, and brackish waters as set forth in an agreement adopted by the Wildlife Resources Commission and the Department of Natural Resources and Community Development, for a distance of 75 feet landward. It should be noted, however, that for Craven County and all coastal counties, Estuarine Shorelines are only located adjacent to coastal or joint waters, and not inland waters.

As an AEC, estuarine shorelines, although characterized as dry land, are considered a component of the estuarine system because of the close association with the adjacent estuarine waters. Estuarine Waters and adjacent Estuarine Shorelines make up the most significant components of the Estuarine System in Craven County. The significance of the Estuarine System is that it is one of the most productive natural environments of North Carolina. It not only supports valuable commercial and sports fisheries, but is also utilized for commercial navigation, recreation and aesthetic purposes. Species dependent upon estuaries include menhaden shrimp, flounder, oysters and crabs. These species make up over 90 percent of the total value of North Carolina's commercial catch. These species must spend all or part of their life cycle in the estuary. The preservation and protection of these areas are vitally important. In addition to portions of the Neuse and Trent Rivers, the Estuarine Waters and adjacent Estuarine Shorelines in Craven County include the following or portions thereof: Adams, Back, Clubfoot, Gulden, Mitchell, and the Upper Broad creeks.

c. Public Trust Waters

Public trust waters are partially defined as all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of state jurisdiction; all natural bodies of water subject to measurable lunar tides and lands thereunder to the mean high mark; all navigable natural bodies of water and lands thereunder

to the mean high water level or mean water level, as the case may be. In other words, public trust areas are waters and adjacent lands, the use of which, benefits and belongs to the public.

-- In Craven County, all of the waters listed as Estuarine Waters and inland waters are considered Public Trust Waters.

Currently, all development and development-related activities within the designated AEC's in Craven County are regulated by the CAMA permit process and are guided by local policy (Regulations allow a local government to develop its own use standards for AECs if they are more restrictive than the State's, e.g., through zoning or subdivision regulations, etc.). It is important to understand the distinction between Estuarine Waters and Public Trust Waters because of the different CAMA enforcement jurisdictions. For all Estuarine Waters, the area of CAMA permit jurisdiction includes the water and the 75-foot inland Estuarine Shoreline area. However, the permit jurisdiction for the Public Trust Waters includes only the water itself and lands thereunder. Also, if an undesignated creek empties into either Estuarine Waters or Public Trust Waters, for permit purposes, it receives the same designation as the water into which it empties.

D. REVIEW OF CURRENT PLANS, POLICIES, REGULATIONS

1. Local Plans, Studies and Regulations

Since completion of the 1982 Plan Update, except for entry into the "regular phase" of the Federal Flood Insurance Program and adoption of a new flood damage prevention ordinance, no major policy or regulatory changes have taken place. The County did prepare a draft zoning ordinance for consideration of adoption. The proposed ordinance, however, was not approved by the County Commissioners.

a. Craven County Land Use Plan, 1975

Prepared under CAMA, this initial Plan provides a description of the then present conditions of population, economy, and land use constraints to development. It discussed fragile and hazard areas, areas of environmental concern, areas with resource potential, and community facilities. It estimated future needs and set out policies and objectives related to implementing those needs.

b. Craven County Land Use Plan Update, 1982

This was the first 5-year update of the initial CAMA Plan (1975) and contains a re-assessment of existing conditions and projections of population, land use and economic conditions. Updated policy statements on various development issues and implementation strategies are also in the Plan Update.

c. Hurricane Evacuation, Hazard Mitigation and Post-Disaster Reconstruction Plan, 1984

This report, funded through the North Carolina Division of Coastal Management as a demonstration project, was an attempt to assess the various risk factors affecting the County in the event of a hurricane or major storm, and to develop policies aimed at lessening the potential damaging effects. The report also included policies on evacuation and rebuilding after such storms. Current planning guidelines, however, require that these policies and those on reconstruction, be included in this present update.

d. Craven County Subdivision Regulations, 1982

Craven County utilizes subdivision regulations as its major land development regulatory device. Revised in 1982, these regulations govern the transition of raw land into new residential subdivisions and set out criteria for required facility improvements and general design standards. The subdivision ordinance is administered by the Craven County Planner, along with the Planning Board. All development proposals are reviewed against the standards set out therein and coordinated with other agencies such as the health department.

e. Federal Flood Insurance Program

The Federal Flood Insurance Program in Craven County officially moved from the Emergency Phase to the Regular Phase as of May 4, 1987, and is in effect throughout the County.

f. State Building Code

The County also adopted and actively enforces the State Building Code through its Building Inspections Department.

g. Septic Tank Regulations

Septic tank regulations are administered by the County Health Department.

h. County Recreation Plan

A recreation plan was prepared for the County prior to the 1982 Land Use Plan Update, which noted then that the plan needed to be updated. Concurrent with the 1987 Land Use Plan Update, both a new recreation plan and an "Estuarine and Beach Access Plan" were prepared for the County, which focused on locations and ways to improve water and other recreational access for the County's citizens.

2. State Agency Plans

a. Transportation Improvement Program, 1986-1995

This plan, prepared by the N. C. Department of Transportation and updated annually, is a statewide schedule of highway and bridge improvements to be undertaken during a 10-year period. Major projects proposed for completion in Craven County include the relocation of U.S. Highway 70 around Havelock, bridge replacements, and minor improvements proposed for several secondary routes in the County.

3. Local Regulations

In addition to the regulations listed under Local Plans, i.e., subdivision regulations, State Building Code, flood insurance, and septic tank regulations, mobile home parks, the CAMA major and minor permit process are also enforced in the County. However, Craven County does not have and does not enforce other ordinances such as zoning, historic districts, nuisance, sedimentation and erosion control, or on local environmental impacts.

4. Water and Sewer Policies

In recent years, there have been major studies and reports prepared on extending centralized water services to all of the County's townships. The County has taken the position that water should be provided to all of the County, as funds become available.

While centralized sewer services are currently limited outside of the municipalities, the County encourages developers to build small systems which may eventually tie together. The legal structure for developing centralized sewer is already in place, since all of the existing "water districts" are also "sewer districts."

5. Federal and State Regulations

In addition to the local ordinances and regulations discussed above, there are also various State regulations which could also affect land development in Craven County, most notably, the Corps of Engineers "404" wetlands permit process.

E. CONSTRAINTS: LAND SUITABILITY

This section of the Craven County Land Use Plan proposes to identify features of the land or landscape of the County which are or could pose serious constraints to development. Under land suitability, these constraints are generally considered under the broad categories of 1) physical limitations, i.e. hazardous (man- made or natural) areas, areas with soil limitations, hazardous slopes, etc., 2) fragile areas, i.e. AECs, complex natural areas, or areas with cultural (architectural or archaeological) significance, and 3) areas with resource potential, i.e. productive or prime agricultural or forest lands, or potentially valuable mineral sites (peat, for example). These elements were not discussed in the 1981 Land Use Plan Update. However, because of the implications for updating certain policies, they are discussed and presented below.

1. Physical Limitations

a. Man-Made Hazards

Airports, tank storage farms, bulk petroleum storage areas, hazardous waste disposal areas, etc., are all examples of what might be considered man-made hazard constraints to land development. The 1982 Plan Update also cited the Marine Corps Air Station at Cherry Point as a man-made hazard, because of the presence of air operations over developing areas. Air operations at the Simmons-Knott Airport have also increased since the 1982 Plan Update, thus increasing the Airport's potential as a man-made hazard. There are no tank farms or bulk petroleum storage facilities within the County's jurisdiction. Another problem or potential problem cited in the 1982 Plan concerned the hauling of military ordnance and/or jet fuel by rail through Craven County. A substantial amount of railroad tracks coming through the County has been taken up and subsequently, a reduction in rail traffic has also resulted.

b. Natural Hazard Area

1. Flood Hazard Area:

Since the 1982 Land Use Plan Update was prepared, another detailed Flood Insurance Study showing elevations and flood hazard areas, has been prepared for Craven County. The Federal Emergency Management Agency (FEMA) completed a study in 1986, with the final maps being effective as of May 4, 1987. The study, which consists of a report and a series of maps of all of the unincorporated area of the County shows

the areas which are subject to inundation by the 100-year flood (zone "A"s) along with elevations, as distinguished from areas subject to minimal flooding dangers (Zone "C"). Not surprisingly, the detailed study shows that substantial sections of Craven County are subject to the 100-year flood. However, a substantial amount of land is included in the "Zone C" classification, i.e., in the 500-year flood area and subject to minimal flooding. Most of the flood-prone areas, i.e., "Zone A" areas subject to a 1 percent change of flooding during any given year, are located along areas adjacent to the Neuse and Trent Rivers, and major creeks, such as Brice, Adams, Broad, or Northwest Creek. The most extensive flood-prone areas are located in the western portions of the County. (See Map 5, 100-Year Flood-Prone Areas, attached.) Although there are "pockets" of minimally-flooded areas (i.e., Zone C) throughout the County, the larger Zone C areas are in the west and southwestern parts of Craven County. It should be noted that the County has adopted a newly revised Flood Damage Prevention Ordinance, which is enforced through the Building Inspections Department, and actively participates in the Federal Flood Insurance Program.

2. Estuarine Erosion Area:

Eroding shorelines along the coastal sounds and rivers in North Carolina has long been a major concern of soil and water conservationists. In October 1975, the results of a study involving 15 counties, and which was conducted by the USDA Soil Conservation Service, were published in a report titled "Shoreline Erosion Inventory, North Carolina." This is still the most recent "official" data available. Estuarine erosion rates were determined for several points or "reaches" along the Neuse River shoreline, using aerial photographs covering 32 years. The Neuse River average annual erosion rate for Craven County was determined to be 3.8 feet per year, which was next to the highest rate among all 15 counties in the Study (Bertie County's rate was 0.92 feet per year, compared to 4.5 feet for Washington County, which had the highest rate). The Craven County study covered 47.41 miles and showed 46.56 miles were eroding (see Map 6), for a total loss of nearly 650 acres over the 32-year period. The average width of the eroded area was 121 feet.

Although the above-cited study is somewhat dated, and measures may have been taken to mitigate such erosion, potential estuarine erosion is still of significant concern in Craven County.

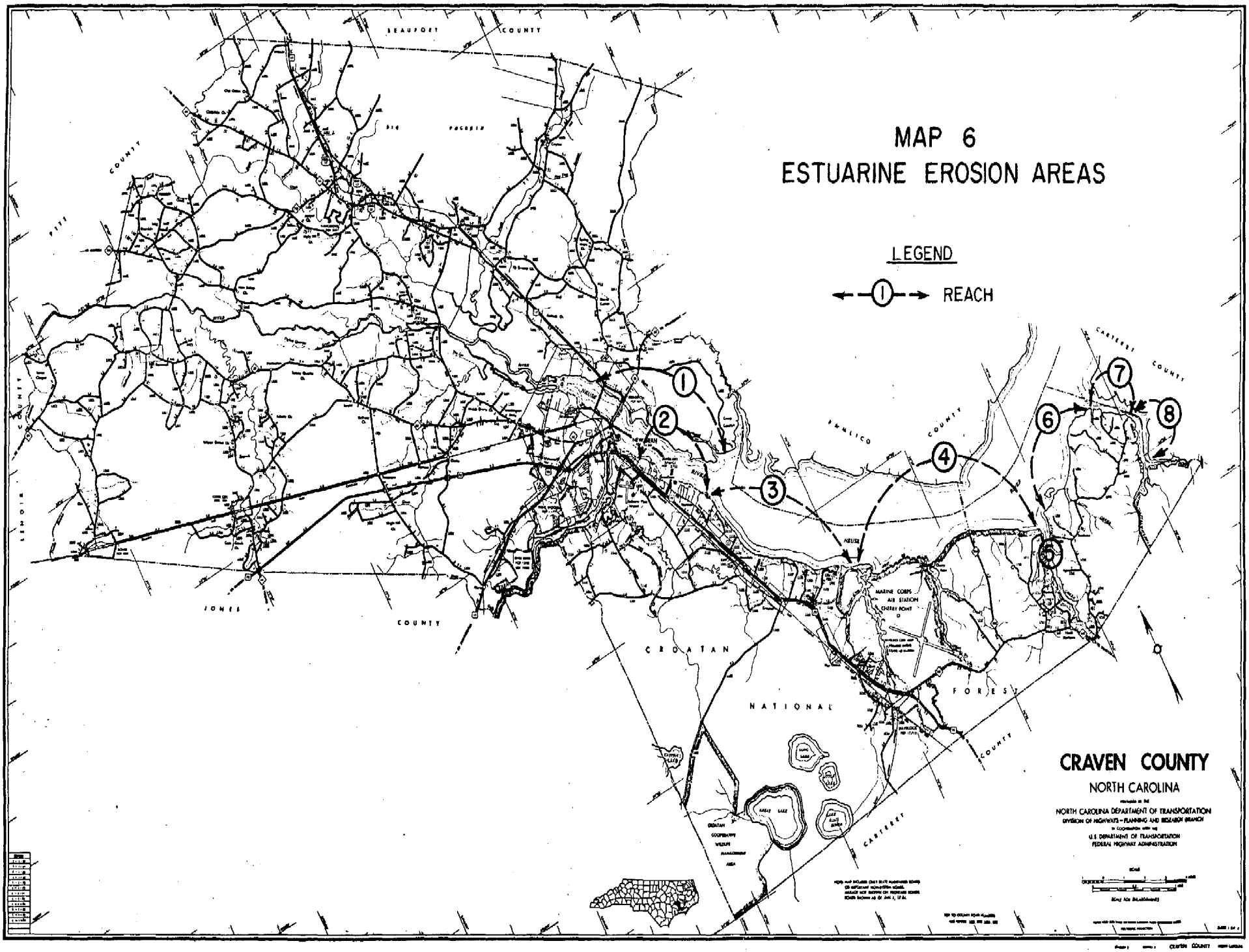

MAP 6
ESTUARINE EROSION AREAS
LEGEND
REACH
BEAUFORT COUNTY
PITT COUNTY
LENOIR COUNTY
JONES COUNTY
PAMLICO COUNTY
CARTERET COUNTY
CROATAN NATIONAL FOREST
MARINE CORPS AIR STATION CHERRY POINT
NEWBERN
CRAVEN COUNTY
NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS - PLANNING AND RESEARCH BRANCH
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

CHART 1:
ESTUARINE EROSION AREAS IN CRAVEN COUNTY, NORTH CAROLINA

REACH NO. 1	
Av. width lost to erosion	87.6 feet
Av. height of bank	3.0 feet
Length of shoreline eroding	7.7 miles
Length of shoreline accreting	0 miles
Total length of shoreline	7.7 miles
REACH NO. 2	
Av. width lost to erosion	69.4 feet
Av. height of bank	23.2 feet
Length of shoreline eroding	3.8 miles
Length of shoreline accreting	0 miles
Total length of shoreline	3.8 miles
REACH NO. 3	
Av. width lost to erosion	147.1 feet
Av. height of bank	20.3 feet
Length of shoreline eroding	7.6 miles
Length of shoreline accreting	0 miles
Total length of shoreline	7.6 miles
REACH NO. 4	
Av. width lost to erosion	175.0 feet
Av. height of bank	11.1 feet
Length of shoreline eroding	10.5 miles
Length of shoreline accreting	0 miles
Total length of shoreline	10.5 miles
REACH NO. 5	
Av. width lost to erosion	115.3 feet
Av. height of bank	8.5 feet
Length of shoreline eroding	5.5 miles
Length of shoreline accreting	0 miles
Total length of shoreline	6.3 miles
REACH NO. 6	
Av. width lost to erosion	119.2 feet
Av. height of bank	9.0 feet
Length of shoreline eroding	5.1 miles
Length of shoreline accreting	0 miles
Total length of shoreline	5.1 miles
REACH NO. 7	
Av. width lost to erosion	37.7 feet
Av. height of bank	7.5 feet
Length of shoreline eroding	1.6 miles
Length of shoreline accreting	0 miles
Total length of shoreline	1.6 miles
REACH NO. 8	
Av. width lost to erosion	95.0 feet
Av. height of bank	5.1 feet
Length of shoreline eroding	4.8 miles
Length of shoreline accreting	0 miles
Total length of shoreline	4.8 miles

Source: Shoreline Erosion Inventory, North Carolina, U.S. DA. Soil Conservation Service, Raleigh, NC, October 1975.

c. Areas with Soils Limitations

Updated and detailed mapping of various soil types and survey interpretations were not available for Craven County during the development of the 1982 Land Use Plan Update. However, an updated, although unpublished soil survey has been completed in preliminary form. The report was prepared by the USDA Soil Conservation Service. The report includes detailed descriptions of the soil types and properties for Craven County with discussion of the suitability for various uses, such as croplands, urban development, septic tank placement, and recreation. The most important feature or property of soils to consider in nearly any location is the drainage capability, since well-drained, stable soils can be used for a variety of "development" purposes, i.e. croplands or residential (septic tank suitability).

Generally, most of the soils in Craven County have limitations for many uses because of wetness, too rapid permeability, too slow permeability, or low strength. Of the 47 mapped soils classifications contained in the Soil Survey Report, 34 were characterized as being "poorly drained" with limitations for urban development uses; 7 were described as "well-drained" to "excessively" well-drained; and 5 were characterized as "moderately-well drained." Most of the soil types, however, are suitable for various agricultural uses if the proper drainage is provided. Regarding septic tank suitability, only five soil types appeared to have good placement potential. Two soil types, i.e., Autryville and Conetoe, were described as having "slight" limitations, while three soil types, i.e., State, and two Norfolk soils, were listed as having "moderate" limitations. Although several soil types in Craven County consists of highly decomposed organic matter, there are no substantial deposits of peat in Craven County of sufficient quality for mining purposes.

With the well-established trend of population growth, as well as the absence of centralized sewer facilities in most of the County's jurisdiction, a very important consideration is the extent of soils suitable for urban development, i.e., septic tank placement. Map 7, attached, shows the general area in the County with septic tank and building development limitations due to soil classifications. This representation, however, is general, and specific determinations must be based on individual on-site analysis and testing.

d. Sources and Estimated Quantity of Water Supply

1. Groundwater

The Craven County water system consists of several water and sewer districts which serve one or more Townships, and all are based on groundwater sources. The newest system, which is presently being developed to serve Townships 1, 3, and 9, in the northwest portion of the County, will have wells based in the Fort Barnwell area and drawing from the Black Creek aquifer. A hydrogeologic evaluation of northwest Craven County, prepared in 1985, concluded that for the new system designed to serve those three principally rural Townships, the Black Creek aquifer is currently being developed by the City of New Bern, Jones County, Onslow County, the City of Jacksonville, and the City of Kinston. This aquifer is an important water source. Its location in the rural portions of western Craven County does not present a constraint to most land uses in this low-density area. Initially, two wells will serve these three townships. Two test wells, one near the Fort Barnwell area and another in the Wintergreen Church area, north of Cove City, showed that each could yield from 750 to 1,000 gallons of water per minute (gpm). When both of these test wells are developed into production wells, they will each be pumped at 700 gpm, or 500,000 gallons per 12-hour day (gpd). Both wells, however, will have the maximum potential capacity to be pumped at a million gallons per day. Because of the size of the aquifer, as water demand increases, additional wells can be developed.

Large quantities of groundwater can be obtained from other wells in other parts of Craven County. However, its usefulness is limited by the chemical quality of the water, i.e., iron, hardness, and possibly manganese. The general quality of groundwater in the County is good, but some degree of treatment is necessary to make it meet the U.S. Public Health Service standards for public water supplies. Also, hydrologists have noted that in supplying the County with water, there is a need for well separation.

In summary, most of Craven County's water supply comes from below the "unconfined" aquifers, i.e., the general water table. Because of the depth of this water supply, it is unlikely that above-ground activities will produce adverse impacts.

2. Surface Water Quality:

The quality of the surface water in Craven County, especially the Neuse River, has been of special con-

cern to North Carolina environmental officials for many years. State agencies have been involved in discussions and projects to locate and identify sources of the serious algae bloom and related problems which have occurred over the years in their attempts to develop solutions. In 1987, the entire Neuse River Basin was nominated to be declared as "Nutrient-Sensitive Waters" by the North Carolina Environmental Management Commission. This special designation (there were only two in the State as of 1986) requires specific actions to help minimize point and non-point sources of pollution, such as upgrading wastewater treatment systems to reduce the discharge of phosphorus and nitrogen.

In January 1988, the entire lower Neuse River Basin was officially designated as "nutrient sensitive" waters. As a result, 27 sewer treatment plants along the river with discharges in excess of .5 MGD (including three in Craven County--New Bern, Havelock, and MCAS Cherry Point) will be required to remove phosphorus from effluent prior to discharging into the river. All new plants and any expansions of existing plants, regardless of capacity, will have to meet phosphorus reduction requirements. The 27 existing plants will have five years to bring their plants into compliance.

The North Carolina Agricultural Non-Point Cost-Share Program, for nutrient-sensitive waters, begun in 1984, is designed to assist farmers to develop management practices which will reduce non-point pollution and sedimentation in sensitive waters--mainly from phosphorus and nitrogen. Technical assistance is provided to aid farmers in terracing, developing filter strips, and cultivation in tillage and non-tillage. Craven County has been active in the program since its beginning. These practices, undertaken as a result of the water quality concerns and the Nutrient-Sensitive Waters designation, should, over a period of time, contribute to the Trent and Neuse Rivers' potential for improved recreational and commercial fishing utility. .

e. Slopes in Excess of 12%

The elevations in all of Craven County are all very low and there are no steep slopes in excess of 12% anywhere in the County.

2. Fragile Areas

These are areas which could easily be damaged or destroyed by inappropriate or poorly planned development. There are not

many fragile areas in Craven County, which include those areas previously identified and discussed as Areas of Environmental Concern (AECs). These included estuarine waters, public trust areas, and estuarine shorelines (see pages 23-25, this section). However, there are other fragile areas in the County which are not classified as Areas of Environmental Concern, (such as primary nursery areas), but nevertheless, due to either natural or cultural significance, are environmentally sensitive. Some of these areas will be identified and discussed below as either "Natural Resource Fragile Areas, or "Cultural Resource Fragile Areas."

a. Natural Resource Fragile Areas

Natural resource fragile areas are generally recognized to be of educational, scientific, or cultural value because of the natural features of the particular site. Features in these areas serve to distinguish them from the vast majority of the landscape. These areas include: complex natural areas, areas that sustain remnant species, unique geologic formations, pocosins, wooded swamps, prime wildlife habitats, or registered natural landmarks. With the exception of the Croatan National Forest and wooded swamps, none of the above-listed natural resource fragile areas have been identified in Craven County. It is unlikely that any substantial area in Craven County would be classified as a "complex natural area." These areas are defined as "lands that support native plant and animal communities and provide habitat conditions or characteristics that have remained essentially unchanged by human activity." These areas are to be determined to be rare within the County or to be of particular scientific or educational value. Complex natural areas are often surrounded by landscapes that have been modified but still do not drastically alter the conditions within the natural areas or their scientific or educational value.

b. Cultural Resource Fragile Areas

Fragile areas may be particularly important to a locale either in an aesthetic or cultural sense. Fragile coastal cultural resource areas are generally recognized to be of educational, associative, scientific, aesthetic, or cultural value because of their special importance to our understanding of past human settlement of and interaction with the coastal zone. Their importance serves to distinguish the designated areas as significant among the historic architectural or archaelogical remains in the coastal zone, and therein establish their value.

Although no comprehensive archaeological or architectural investigation of Craven County has been completed, the State Division of Archives and History has recorded several sites in the County. Also, it should be noted here

that a "Craven County Historic Resources Inventory" is currently being prepared by the N.C. Division of Archives and History. When this study is complete, additional structures with historic/architectural significance will be identified and possibly a rural historic district added to the State's study list. There are several sites within the incorporated municipalities which have been placed on the National Register of Historic Places. Significant historic and/or architectural resources outside of these areas within the County include:

- Clear Springs Plantation
- Bellair Plantation
- Dr. Earl S. Sloan House

Study List Property (1)

- Dudley House

3. Areas With Resource Potential

a. Agricultural and Forest Lands

The primary areas with resource potential to be considered in this 1987 update of the Craven County Land Use Plan are agricultural and forest lands. As discussed under existing economic conditions (pages 8 through 11), agriculture and commercial forestry are substantial income producers for Craven County and therefore cannot be under-estimated in value. In August, 1983, the Governor of North Carolina issued a formal policy declaration (Executive Order 96) concerning the State's desire to promote the "Conservation of Prime Agricultural and Forest Lands" in support of and to assist with compliance of the Federal Farmland Protection Policy Act of 1980. The declaration of Executive Order 96 recognized the fact that in many areas of the State, prime agri- cultural and forest lands are being converted to other uses at such a significant rate that these irreversible uses may ultimately reduce the capacity of food and fiber production. Prime agricultural and forest lands were defined as those lands "...which possess the best combination of physical and chemical characteristics for producing food, feed, fiber (including forest products), forage, oilseed, and other agricultural products (including livestock), without intolerable soil erosion."

The Governor directed the Secretary of the State Department of Natural Resources and Community Development to assume the responsibility of carrying out the Order. The program proposed in the Executive Order involved the identification of and mapping of prime agricultural and forest lands by the Soil and Water Conservation Commission through the assistance of local Soil and Water Conserva-

tion Districts. Also, by means of the existing State Clearinghouse review process, the impact of any development proposed on prime agricultural or forest lands would have to be assessed beginning January 1, 1984.

However, as of the writing of this report, prime agricultural or forest lands have not been identified or mapped in accordance with Executive Order 96, in Craven County. The most productive farmland and commercial forests are located in the western part of the County. With appropriate drainage facilities, most of the soil types in Craven County yield very productive farmland. Productive farmland is located in various portions of the ous portions of the County, intermingled with forestlands scattered across most of the County's landscape. (See Existing Land Use Map, attached.)

b. Productive Water Bodies

Because of the significance of commercial and recreational fishing in Craven County, the primary fishing areas should also be considered as an area with resource potential. In 1985, Craven County ranked 15th among the State's coastal counties in terms of overall fish catches, up to 16th in 1983 and 1984, and 17th in 1981 and 1982. This indicates that in spite of previously cited surface water quality concerns, substantial landings are still being drawn from both the Neuse and Trent Rivers. These areas are vital productive resources. Also, there are several fishery processing businesses in the County, providing employment and income to some of the County's residents. Implementation procedures over the next few years of the recent (January 1988) designation of "nutrient sensitive" waters for the lower Neuse River Basin should also help improve the productivity of these waters.

c. Mining Lands

Craven County does not have a substantial peat reserve capable of being mined for commercial or industrial purposes like several other coastal counties. However, review of detailed soils classifications maps prepared by the U.S.D.A. Soil Conservation Service, indicates that soil types with highly decomposed organic matter as surface layers and underlayed by decayed logs, etc. may signify the presence of peat. These types of soils can be found in various pockets in the County, usually coinciding with very poorly drained soils. The County has a major rock quarry, which provides rock aggregate material for most of eastern North Carolina, and a few small sand pits. There are no other known areas in the County which contain marketable mineral resources, such as phosphate.

d. Outdoor Recreation Lands

Lands used for hunting, fishing, boating, hiking, camping, and other outdoor recreational uses are also important resources to consider in the development of land use policies. In Craven County, because of two major productive water bodies, and expansive woodlands, as well as the extensive Croatan National Forest, recreational fishing and hunting opportunities, within the appropriate seasons, abound.

F. CONSTRAINTS: CAPACITY OF COMMUNITY FACILITIES

1. Water

As discussed under "Sources and Quantities of Ground Water," Craven County currently does not have a single, unified, County-wide water system. The County water service outside of the municipal areas, which have their own systems, currently consists of several sub-autonomous "sanitary districts," serving portions or all of several Townships. The largest system is under construction as of the writing of this report and is scheduled to be operational by the Fall of 1988. This system, developed under the authority of the Northwest Craven Sanitary District, will serve the north and western Townships 1, 3, and 9. (See Map 8, attached.) The projected capacity, based on two wells, will be approximately 1,000,000 gpd, with an estimated initial demand of roughly one-half of capacity, i.e., 550,000 gpd. Also, water from these new wells will be pumped to Townships 6, 7, and 8, which are currently being served by water purchased from the City of New Bern. The County will eventually stop purchasing water from the County.

Portions of Township 2 are currently served by the independent First Craven Sanitary District, which also has two wells each with rated capacities of 300,000 gpd for a total capacity of 600,000 gpd. Currently, the peak demand is about 350,000 gpd for 1,100 customers, which leaves considerable excess capacity. Fairfield Harbor, also located in Township 2, has its own water system and also has plans to expand the capacity as development and demand increases.

The system serving Township 7 (the James City area), has a capacity of 400,000 gpd. Township 6, primarily the Pembroke area, is scheduled to be served by a new system which is set to begin construction in late 1987. The Township 6 system will have an initial capacity of 150,000 gpd. Although the County has long-range plans for serving the entire County, there are no sanitary districts currently serving Townships 8 and 5, although some portions of Township 8 receive water from the City of New Bern.

In addition to water supply, the quality of drinking water is also an issue in Craven County. There are both concentrations of iron and sulfur in some areas. One of the major reasons the County sought to develop the County-wide water system was to improve the quality of water for its residents. To extend the water lines into predominantly rural areas, the 1982 Land Use Plan had to be amended.

A summary of the existing and proposed water system capacities in Craven County (excluding the municipal systems and Fairfield Harbor) is shown in Table 21, below.

Table 21: Non-Municipal Water Service in Craven County

Township	Current Capacity (gpd)
*1, 3 and 9	1,000,000
2	600,000
5	-0-
*6	150,000
7	400,000
8	-0-
Total	2,150,000 gpd

*Proposed, or under consideration.

Within their existing service areas, the current water capacity is adequate, and the County has already had studies prepared on expanding the system as the demand dictates and funds become available. The primary need for centralized water is in portions of Township 8, and all of Township 5.

2. Sewer

The only centralized sewer system in the County outside of the municipal systems (including a privately operated system in River Bend), and Fairfield Harbor, is located in Township 7 and serves the James City area. Also, in the Carolina Pines area, a privately owned system is being developed which has the capacity to expand. Although most of the County has soil types which are not conducive for placement, the majority of the non-municipal residents in Craven County utilize septic tanks for wastewater disposal. The County does have long-range plans for developing public centralized sewer service outside of the municipalities, because, centralized sewer is recognized as an eventual need. All of the sanitary districts are water and sewer authorities.

3. Solid Waste

Craven County operates a sanitary landfill for the disposal of solid waste. Collection is done by the "greenbox system," and there are approximately 200 of these boxes at 54 sites located throughout the County. Some individual customer collection is done by private contractors who also utilize the County landfill. The County landfill is projected to have a useful life until the year 2000, and should be adequate throughout the planning period.

4. School Enrollments and Facilities

The general trend in most of North Carolina reflects a decline in school-age populations, as demonstrated in Table 6, page 6, for Craven County. Demographic projections should steadily decline in the 5-19 year-old age group. In Craven County, however, school enrollments have fluctuated, and according to

projections prepared by the School Planning Division of the State Department of Public Instruction, are forecast to increase through 1991. Craven is one of only 20 of the State's 100 counties projected to experience an increase in enrollments between 1985-1991. Notice the enrollment trends and projections in Table 22, below.

Table 22: Total School Enrollments: Craven County K-12

Year	Enrollments	% Change
1977-78	14,340	-
1981-82	13,993	-2.4%
1985-86	13,587	-1.9%
*1986-87	13,905	+2.3%
**1990-91	14,407	+3.6%

Source: New Bern-Craven County Board of Education.
*Based on first enrollment month figures.
**Projections by State of North Carolina.

From 1985-86 through 1990-91, a total of 820 aditional pupils is forecast by State school planners, 226 of which should be in grades 9 through 12. As for school facilities, the 1982 Plan Update showed that several of the County's 20 schools were then operating at near or above capacity levels. And even with 125 temporary classrooms, in 86 mobile units, there still appears to be a demand for more school space. A new elementary school did open in the Fall of 1986, and one new school is scheduled to be complete in 1988 to replace the Jasper and Fort Barnwell schools.

An important state-wide policy which affects the local demand for classroom space is the mandated reduction in average classroom size. As the enrollment numbers increase, and the classroom sizes decrease, more classrooms may be needed.

5. Transportation

There are several major thoroughfares in Craven County. U.S. Highway 17 bisects the County from southwest to northeast; U.S. 70 runs through the County from west to east; and several State highways, i.e., N.C. 55,43, 118, 306, and 101 criss-cross portions of the County. Also, there are many State-maintained secondary roads -- paved and unpaved. Table 23, below, summarizes the highway mileage as of 1984.

Table 23: Craven County Highway Mileage - 1984

Primary		140.72
Secondary		583.33
Total		742.05
Paved	538.00	
Unpaved	186.05	

Source: Profile of North Carolina Counties, 1986.

A little more than 74% of the County's roads were paved, while 26% were unpaved in of 1984. the County is included in the State Transportation Improvement Plan (TIP) and about 5 miles per year are to be paved, according to the Plan. The major improvement called for in the TIP is the relocation of U.S. Highway 70 around Havelock in the mid-1990s. In addition to relatively minor pavings of several secondary roads, the long-range plan also calls for the replacement of several small bridges in the County.

Average daily traffic (ADT) volumes have also likely increased in Craven County, as the population and tourism have both increased. However, outside of the municipalities, mainly New Bern and Havelock, traffic congestion does not appear to be a problem. Notice Table 24, below, which shows ADTs for several locations outside of the municipalities.

Table 24: Average Daily Traffic, Selected Locations

Location	Volume	Roadway Capacity
- U.S. 70 @ Trent River Bridge	26,000	48,000
- U.S. 70 east of S.R. 1225	6,500	24,000
- U.S. 17 south of New Bern	11,700	48,000
- U.S. 17 north at Bridgeton limits north	9,800	24,000
- U.S. 17 north: Neuse River Bridge	20,000	

Source: N.C. DOT, Division of Highways

Aviation transportation is also an increasingly important factor in Craven County. Now with two commuter airlines with four scheduled flights per day at Simmons-Nott Airport, enplanements went up dramatically from 6,753 in 1983 to 41,418 in 1986 -- an increase of over 500%. Enplanements are projected to be substantially higher in 1987.

As airport operations and related facilities expand, land use compatibility near the airport may become an issue --

especially since the airport is located in one of the faster growing townships.

6. Medical Services

Generally, medical services are adequate in Craven County. The County maintains a primary care facility, Craven County Hospital, which is owned by the County. The hospital has a local Board of Directors, which is appointed by the County Board of Commissioners. The hospital serves Craven County and several surrounding communities. There are also many physicians in priate practice in the cities of New Bern and Havelock, as well as dentists and pharmacists. A public health clinic is also operated by the Craven County Health Department. Additional specialized medical services are available in Greenville, 40 miles north and which hosts the East Carolina Medical School.

7. Emergency and Protective Services

As in the case with medical services, emergency and protective services for Craven County are also primarily based in the municipalities. Law enforcement in the county is primarily the responsibility of the County Sheriff and a staff of deputies and dispatchers. Recent consultations with the N.C. Institute of Government, indicated that Craven County's 41 sworn officers were within the normal range of officers, considering its population. Emergency medical rescue is provided for the County by six volunteer rescue squads located throughout the County and all of which can be dispatched through the 911 number through the County Sheriff's Department (except for the Dover area). There are still some areas in the County, mainly the eastern portion near Harlowe and Adams Creek, and Dover in the west, which are not within the state-approved 30-minute response range. These areas are attempting to establish "First Response Teams" with the capacity to provide services until the regular Rescue Squad arrives. These teams are to be in place sometime during 1987. Fire protection outside of the municipalities is provided through a total of seven volunteer fire departments, located in Townships 6, 7, and 8.

G. ESTIMATED DEMAND

1. Population and Economy

According to projections in Table 1, page 2, Craven County's population in 1996 will be 101,656, an increase of 19,096 persons over the 1986 estimate of 82,560. (Both estimates were provided by the North Carolina Office of State Budget and Management.) This growth rate (23.1%) implies a strong growth trend and should be a cause for concern over the resultant impact upon existing facilities and services. If current

trends continue, the County can expect to gain about 50%, or 9,548 of these additional persons, while the other half will likely reside in the municipalities. (This is based on the municipal proportions of the County's 1980 population and not the most recent - 1984 - State estimate for municipalities, assuming the proportion holds steady and the Towns do not annex.) Again, on the basis of current trends, most of the 9,548 additional persons in the County will reside in Townships 2, 6, 7, and 8. Also, there appears to be a trend toward smaller households (e.g., the average household size in 1970 was 3.30 persons, but only 2.83 in 1980), the average household size in Craven County by 1996 could be 2.5 persons. Thus, assuming an average of 2.5 persons per household in 1996, the increased population by that time could result in 3,819 additional households each for the municipalities and for the unincorporated portions of the County.

The total 9,538 projected additional households will place certain demands upon goods, services, and facilities in the entire County. However, as stated above, only one-half of these households are forecast to locate in the unincorporated portion of the County. It should also be noted here that, as tourism increases, there may be an appreciable seasonal population developing in Craven County.

Based on recent trends, it is likely that the impact of the population increase upon the local economy will be felt more within and near the incorporated municipalities than in the unincorporated portions of Craven County. Both Havelock and New Bern are growing commercial and service centers. Therefore, it is more likely that increased commercial activities and other services, as well as employment, will likely concentrate in Craven.

2. Future Land Need

Most of the land required to acommodate additional residential growth in Craven County consists of vacant, undeveloped land and vacant lots in previously platted subdivisions. Even if the projected 9,548 total additional persons by 1996 (approximately 3,819 households at the assumed average household size of 2.5 persons) resided on one-acre tracts, at least 3,819 acres of additional developable land would be needed. This is a very conserative estimate of land needed, since additional lands will be required for commercial, industrial, institutional, governmental, and recreational areas. Also, a significant amount of land will be needed for roadways, easements, etc. However, with centralized water to be provided during the planning period in Townships 1, 3, 9, and 6, full, one-acre tracts may not be needed for much of the County, provided the areas are suitable for septic tank placement. This projection does not include the projected growth for the incorporated municipalities.

With more than 363,800 acres of forests and farmlands, an additional 3,819 acres of residential acreage is not significant. Land availability, except for possible septic tank limitations in some areas, should pose no major problems.

3. Community Facilities Needs

The additional population increase by 1996 outside of municipalities of 9,548 persons, or 3,819 households, will require more water from the Craven County water system. However, as discussed under "Community Facilities Constraints," the County has plans to continually expand the water system (primarily because of water quality concerns), and should be able to handle additional customers throughout the planning period. Several existing systems have considerable excess capacity.

Outside of Township 7 and the municipalities, additional residents will have to continue to rely on septic tanks for disposal of sewage. With the availability of suitable, well-drained soils and/or the installation of modified septic systems in certain soil types, and as approved by the County Health Department, septic tank placement may not pose major problems.

The County's solid waste disposal system, using the landfill near Tuscarora, has a projected useful life through the year 2000 and should be adequate throughout the planning period. The only other major facilities which may need expansion are school facilities, based on State projections for increased enrollments.

SECTION II :

Policy Statements

SECTION II: POLICY STATEMENTS

The formulation of specific policies regarding growth and management objectives is perhaps the most important part of this updated Land Use Plan. A "policy" may be defined as an executive or legislative statement of a governing principle or intent, implying certain actions to be taken to achieve certain desired results. These desired results become the County's goals and objectives for future development. Those policies must, in some cases, strike a delicate balance between objectives of the Coastal Resources Commission and the desires and objectives of the citizens of Craven County. Most of the trends identified in the 1982 Plan are still continuing, and in some cases, intensifying, (population growth, for example), so in many instances, policies set forth in the 1982 Plan will not require significant modification. However, new policies must be developed in order to address issues which have become significant since 1982. As the analysis of existing conditions showed, the emerging trends include: a rapidly growing population, a relatively strong and expanding economy, and increased residential development in the unincorporated areas near New Bern and Havelock.

The Coastal Resources Commission, recognizing the diversities which exist among the Coastal counties and communities, required the County to specify particular development policies under four rather broad topics in 1982. For the 1987 Update, however, the CRC has added a fifth issue, i.e., "Storm Hazard Mitigation." In most cases, policies developed under these topics will cover most of the local development issues, but in some cases, they do not. In the latter case, Craven County has the flexibility to address its own locally defined issues. The five required broad topics are:

- Resource Protection
- Resource Production and Management
- Economic and Community Development
- Continuing Public Participation
- Storm Hazard Mitigation

After an analysis of the existing conditions and trends and input from the County's citizens, the foregoing policies were developed to provide an overall framework for guiding growth and development in Craven County throughout the current planning period, i.e., through 1996.

A. RESOURCE PROTECTION

1. Areas of Environmental Concern: Development Policies

Craven County recognizes the primary concern of the Coastal Resources Commission, in terms of protecting resources, as managing Areas of Environmental Concern (AECs). The County also

shares this concern for the protection and sound management of these environmentally sensitive land and waters. The AECs which occur in Craven County were identified in Section I of this Plan on pages 23 through 25. All of these areas are within the Estuarine System. In terms of developing policies, the Estuarine System AECs, which include Coastal Wetlands, Estuarine Waters, Estuarine Shorelines, and Public Trust Areas, will be treated as one uniform grouping since they are so closely interrelated. Another reason for grouping these AECs together is the fact that the effective use of maps to detail exact on-ground location of a particular area, poses serious limitations.

Craven County's overall policy and management objective for the estuarine system is "to give the highest priority to the protection and coordinated management of these areas, so as to safeguard and perpetuate their biological, social, economic, and aesthetic values and to ensure that development occurring within these AECs is compatible with natural characteristics so as to minimize the likelihood of significant loss of private property and public resources." (15 NCAC 7H. 0203) In accordance with this overall objective, Craven County will permit only those land uses which conform to the general use standards of the North Carolina Administrative Code (15 NCAC 7H) for development within the Estuarine System. Generally, only those uses which are water dependent will be permitted. Specifically, each of the AECs within the Estuarine System is discussed below according to definitions derived from 15 NCAC 7H. It should be noted, however, that occasionally portions of the Administrative Code change, which may affect definitions and use standards.

a. Coastal Wetlands

By technical definition, there is very little "coastal wetland", i.e., regularly flooded salt marsh areas containing certain plant species in Craven County. The technical "coastal wetlands" occur along the upper reaches of the Neuse River and some adjacent creeks, and possibly along relatively narrow segments of the Trent River. Most of what could be termed "wetlands" in the County consists of "wooded swamp" areas in the lowlands near the two rivers. The more sensitive "wet" areas are, obviously, those closest to the water. The wooded swamps in Craven County's jurisdiction could also possibly contain areas that sustain remnant species, and wildlife habitats, all of which are important to Craven County. However, the County does not believe that all land uses in these areas should necessarily be prohibited. The first priority of uses of land in these areas should be the allowance of uses which promote "conservation" of the sensitive areas, with conservation meaning the lack of imposition of irreversible damage to the wetlands. Generally, uses which require water access and uses such as utility easements, fishing piers and docks, will be allowed, but must adhere to use standards of the Coastal Area Management Act (CAMA: 15

NCAC 7H) and/or as permitted by the U. S. Army Corps of Engineers for areas determined to be "404" wetlands.

b. Estuarine Waters and Estuarine Shorelines

The importance of the estuarine waters and adjacent estuarine shorelines in Craven County was discussed in Section I of this document on pages 23-25 and under "Estuarine Erosion Area," pages 29-31. Craven County is very much aware that protection of the estuarine waters and adjacent estuarine shorelines -- both vital components of the estuarine system -- is of paramount importance to fishing, both commercially and for recreation and for the essential maintenance and enhancement of the Neuse River. As discussed in Section I, the Neuse River has been included in the "National Rivers Inventory" by the U.S. Parks Service, and is thereby a candidate for designation as a "National Wild, Scenic, and Recreational River." Less than 2% of all streams in the nation have even qualified to be included in the Inventory. Craven County is very much aware of the important recognition of the Neuse River.

Craven County recognizes that actions within the estuarine shoreline, which is defined as the area extending 75 feet landward of the mean high waterline of the estuarine waters, could have a substantial effect upon the quality of these waters. This area is subject to erosion and occasional flooding, which could not only affect the quality of the adjacent estuarine life, but also threaten the security of personal property from developments located therein. The estuarine erosion rates cited in Section I of this report indicate that certain land areas in the County have historically lost land to erosion at an average rate of 3.8 feet per year. If a waterfront lot were to be located in such an area without stabilization measures, 38 feet of the lot could possibly be lost to erosion over 10 years.

In order to promote the quality of the estuarine waters as well as minimize the likelihood of significant property loss due to erosion or flooding, Craven County will permit only those uses which are compatible with both the dynamic nature of the estuarine shorelines and the values of the estuarine system. Residential, recreational, and commercial uses may be permitted within the estuarine shoreline, provided that:

- a substantial chance of pollution occurring from the development does not exist;
- natural barriers to erosion are preserved and not substantially weakened or eliminated;
- the construction of impervious surfaces and areas not allowing natural drainage is limited only to that necessary for developments;
- standards of the North Carolina Sedimentation Pollution Control Act 1973 are met;

- development does not have a significant adverse impact on estuarine resources;
- development does not significantly interfere with existing public rights or access to, or use of, navigable waters or public resources (except in the case of private property).

c. Public Trust Areas

Craven County recognizes that the public has certain established rights to certain land and water areas. (For definitions and geographic locations of public trust areas, see page 24, Section I). These public areas also support valuable commercial and recreational fisheries, waterfowl hunting, and also contain significant aesthetic value. Craven County will promote the conservation and management of public trust areas. Appropriate uses include those which protect public rights for navigation and recreation. Projects which would directly or indirectly block or impair existing navigation channels, increase shoreline erosion, deposit spoils below mean high tide, cause adverse water circulation patterns, violate water quality standards, or cause degradation of shellfish waters, shall generally not be allowed. Allowable uses shall be those which do not cause detriment to the physical or biological functions of public trust areas. Such uses as navigational channels, drainage ditches, bulkheads to prevent erosion, piers, docks, or marinas, shall be permitted.

d. Policy Alternatives: Development in AECs

Sections a, b, and c of this Part have presented details of Craven County's position on land uses in the statutorily defined Areas of Environmental Concern (AECs). Policy alternatives include:

(1) Revising and strengthening the existing Subdivision Regulations, to impose stricter design standards, particularly in waterfront areas, or areas with water accessibility.

(2) Adopt either a County-wide Zoning Ordinance, to establish certain "zones," or districts with specified uses and restrictions, or develop for adoption a zoning ordinance which covers current and projected developing areas of the County, e.g., Fairfield Harbor, and possibly other areas in close proximity to New Bern and Riverbend, but outside of their planning jurisdictions.

(3) Continue to utilize current management tools and enforcement system, i.e., existing Subdivision Regulations (with no modifications), along with

Federal and State permit and review processes, i.e., 404, and CAMA.

e. Policy Choices

Craven County will continue to utilize the existing regulatory system, i.e., existing Subdivision Regulations, along with Federal and State permit and review processes, i.e., 404, and CAMA along with updating and strengthing existing local regulations.

2. Development in Areas with Constraints

The constraints to development in Craven County were discussed in Section I (pages 28-44) and relate to both physical constraints and limitations of community facilities. The physical constraints include man-made hazards such as the Simmons-Knott Airport area, and the air operations area for the Marine Corps Air Station at Cherry Point, as well as natural hazards such as high hazard flood areas, estuarine erosion areas, soils limitations, and natural and cultural resource fragile areas. (See Map 8, "Composite Hazards.")

The high hazard flood areas, i.e., areas susceptible to the 100-year flood, is not as extensive in Craven County as it is in some other coastal counties (based on revised Flood Insurance Rate maps, prepared by the Federal Emergency Management Administration). As the attached Map 5 indicates, although significant portions of the County are considered to be in the "Zone A" category, according to maps prepared by the Federal Emergency Management Agency, the majority of the County is classified as "Zone C", i.e., minimally flooded areas susceptible to a 500-year flood. The areas with the highest risk appear to be some of the estuarine shoreline areas along the Neuse and Trent Rivers' shores and several interior creek lowland areas. Although most of the County is not flood prone, it is still not realistic that all development should be prohibited from such areas.

Estuarine erosion areas, as a physical constraint to development, often correlate to the high hazard flood areas. Soils limitations for development also usually relate to flood-prone areas. Some of the soil types have limited permeability or too rapid permeability, making septic tank placement a problem. Also, pockets of muck or silt-type soils cannot support septic tanks nor bear the construction of heavy foundations.

Other than the Neuse River and lands within the Croatan National Forest, there are no other extensive or major natural resource fragile areas in Craven County. Those which do exist are closely linked with the previously identified AECs. The County does, however, have extensive wooded swamps, which may come under the jurisdiction of the U.S. Army Corps of Engineers 404 permit process. The cultural resource fragile areas were discussed on page 35).

a. Policy Alternatives

Possible policy alternatives regarding managing growth and development in areas with identified constraints include:

(1) Amend subdivision regulations to include stricter design standards.

(2) Develop and adopt additional regulations, or modify existing ones, such as a Zoning Ordinance for specified areas or utilize the existing Flood Damage Prevention Ordinance to regulate or prohibit all development in areas with identified physical constraints.

(3) Permit development in those areas, utilizing current state, federal and local regulatory processes, i.e., CAMA, flood ordinance, current subdivision regulations, stormwater run-off requirements, and Corps of Engineers 404 permits, and zoning, if adopted, where adequate protective measures have been taken.

b. Policy Choices

Craven County adopts the following policies regarding development in areas with constraints.

(1) Development will be permitted in some areas subject to erosion, provided proposals comply with provisions outlined for development within the estuarine shorelines (see page 4, this section).

(2) Craven County realizes the inevitability of some development occurring in flood prone areas. Therefore, the County will continue to participate in the National Flood Insurance Program and enforce its "regular" Flood Damage Prevention Ordinance through the County Building Inspection Program. Proposed developments which are not otherwise damaging to AECs may be permitted, provided protective measures which comply with flood insurance requirements are imposed.

(3) Development in areas where soil types have limited bearing capacity will not be encouraged. However, the County will permit development in such areas, as long as such development complies with other local, state, and federal environmental regulations.

(4) In areas with possible septic tank limitations, Craven County will remain committed to decisions rendered by the Craven County Health Department's Sanitarian.

c. Implementation Schedule

Craven County will continue to support enforcement of existing regulatory controls.

3. Hurricane and Flood Evacuation Needs and Plans

An extensive and detailed "Hurricane Evacuation, Hazard Mitigation, Post-Disaster Reconstruction Plan" was prepared for Craven County in June 1984, and contains specific information and policy statements. However, since the CAMA Planning guidelines now require that such policies be incorporated into the land use plans, some information, along with the relevant policy statements from the 1984 document, will be summarized in this report, beginning on Page 70.

4. Protection of Potable Water Supply

As discussed in Section 1, pages 32 and 34, Craven County's water distribution system, both the existing and proposed expansion, is based on groundwater drawn through a series of wells as the supply source. Land uses near groundwater sources are regulated by the North Carolina Division of Environmental Management through N.C.A.C. Subchapter 2L and Subchapter 2C. Craven County recognizes the importance of protecting potable water supplies and therefore supports the enforcement of these regulations. Also, the County will discourage, through development controls, any development which may encroach upon these wells.

5. Use of Package Treatment Plants

Currently, centralized sewer outside of the municipalities is provided only in Township 7 (the James City area, primarily). The use of small package treatment systems has generally been viewed as acceptable in Craven County as an aid to orderly growth and development, provided necessary environmental permits can be obtained. Although the County does consider the eventual provision of County-wide sewer service to be desirable, realistically, even on a limited Township basis, the costs would be prohibitive. Therefore, package treatment plants in "growth" areas are an acceptable alternative. It is not the County's desire, however, to see a proliferation of small package treatment systems which bear no relation to each other. Developers will be encouraged to cooperate so that any such system (each to be reviewed on a case-by-case basis) can be developed in some pattern of uniformity.

6. Stormwater Runoff Associated with Agriculture, Residential Development, Phosphate or Peat Mining, and Its Impact on Coastal Wetlands, Surface Waters, or Other Fragile Areas

Stormwater runoff is basically the same issue as surface drainage in Craven County. Policies on surface drainage are addressed in other areas of this Plan. (See Part B, this section, "Resource Production and Management Policies", for policies relating to agriculture, [B.1], residential development [B.6], and peat

mining [B.3], and discussion of related impacts. Phosphate mining is not an issue in Craven County.

7. Marina and Floating Home Development

There are extensive estuarine waters and shorelines in Craven County; therefore, the development of marinas has both significant commercial and recreational potential. The County supports the development of marinas in compliance with existing environmental regulations. The County believes that additional studies of the County's needs are required in order to indicate possible sizes or locations of marinas. (A separate "Estuarine Access Plan" is being prepared concurrently with the Land Use Plan Update.) So-called "floating homes," to date, have not been an issue or problem in Craven County's jurisdiction. However, it is quite possible that during the planning period, this issue could arise. The County will allow marinas to be developed in compliance with State, Federal, and local environmental and health regulations. Also, in cases where there are more than 30 boat slips provided, the developer shall be required to provide pump-out facilities for the disposal of wastewater. Also, the County believes that as long as all requirements are complied with, marinas should be allowed in any land classification, except within the Rural-General Classification.

8. Industrial Impacts on Fragile Areas

Part C.1, "Types and Locations of Desired Industry", contains specific policy statements on industry. (See pages 58-60). In general, however, the County believes that industrial development should not be allowed if it is clearly deleterious to sensitive environmental areas.

9. Development of Sound and Estuarine System Islands

There are no estuarine system islands of any significance in Craven County's jurisdiction. The few small riverine islands are likely natural fragile areas and not developable. It is the County's policy, therefore, that these areas should be protected from any environmentally adverse development. Such areas should be classified as "Conservation" in the Craven County Land Classification System. (See Map 10, attached.)

B. RESOURCE PRODUCTION AND MANAGEMENT POLICIES

Appropriate management of productive resources is very important to any locality. In Craven County, as with many coastal counties, the productive resources are intricately tied to the predominant economic sectors of the County which makes the necessity of balanced management policies of paramount importance. The major productive resources to be considered relate to agriculture, commercial forestry, commercial and recreation fisheries, and recreational land uses.

1. Agriculture

Agriculture, as discussed under analysis of existing economic conditions, though declining in recent years, is still a very important income source in Craven County. More of the County's income still comes from this sector than from any other sectors except manufacturing. The importance of farming and its supportive activities cannot be overestimated in Craven County. Executive Order 96, "Conservation of Prime Agricultural and Forest Lands", was supposed to have led to the identification of "prime areas," in both agriculture and forestry, by the soil and water conservation districts. However, this identification has not occurred in Craven County. Nevertheless, according to the County Agricultural Extension Agent, the most productive farmlands are located in the northern and western sections of the County.

a. Policy Alternatives

(1) Do not impose any additional land use controls or restrictions on agricultural practices.

(2) Consider developing a county-wide, or sub-county zoning ordinance and zone certain lands as "agricultural," with use restrictions and limitations.

(3) Continue to support and encourage use of the U.S. Soil Conservation Service's "Best Management Practices" program and the Non-Point Pollution Agricultural Cost-Share Program.

b. Policy Choice

(1) Craven County, in recognition of the importance of agriculture to the County's economy, believes that existing federal and state permitting procedures (CAMA and Corps of Engineers) pose enough limitations to the use of farmland in the County. Because of the soil types and topography, the County recognizes that proper drainage is essential and must be allowed to continue as needed,

and as it does not result in irreversible damage to environmentally sensitive areas. Therefore, no additional limitation or policies will be adopted. However, the County will support and encourage the identification of "prime" farmland in Craven County and participation in the Non-Point Pollution Agricultural Cost-Share Program, including the S.C.S., use of the "Best Management Practices". These programs are designed to balance proper agricultural management with protection of nutrient-sensitive waters from agricultural runoff.

c. Implementation Schedule

(1) Leave the existing process as is.

(2) Encourage the Regional Soil and Water Conservation District to identify prime agricultural lands by FY 88, so that these areas can be mapped.

(3) Continue to support State Clearinghouse review of impact of development on prime agricultural lands.

2. Commercial Forestry

Woodlands and forests cover most of Craven County's landscape. Substantial amounts of income are generated annually from forest products, mainly from saw timber. Weyerhauser Corporation, one of the largest manufacturers of wood products in the world, has a major facility in Craven County. "Prime" forest lands, as defined in Executive Order 96, have not as yet been identified for mapping in Craven County. "Productive" forest lands, however, are found in many sections of the County.

a. Policy Alternatives

(1) The County could, through the adoption and enforcement of local ordinances, impose restrictions on timbering practices and require commercial loggers to replant and reclaim timbered areas.

(2) The County could leave current practices as they are without imposing additional restrictions.

b. Policy Choice

(1) The County believes that imposing additional restrictions are not necessary at this time nor should be throughout the planning period. However, Craven County will encourage reforestation

whenever feasible, as a sound timber management practice.

c. Implementation Schedule

(1) Leave the existing process as is.

(2) Encourage the Regional Soil and Water Conservation District to identify prime forestlands by FY 88, so that these areas can be mapped.

(3) Continue to support State clearinghouse review of the impact of development projects on prime forestlands.

3. Mining Resource Areas

Unlike some other coastal counties, Craven County does not have vast reserves of some mineable resources, i.e., peat or phosphate. The only presence of peat or phosphate of any significance (as reported in the 1982 plan) is located with the jurisdiction of the U. S. Forest Service, i.e., in the Croatan National Forest. However, there are some sand mining areas in the County and there may be potential for others. Martin-Marietta Corporation has a stone mining operation in the County, which is sjubject to state and federal regulations. As a policy, Craven County believes the existing rock and sand pits, and possibly others, should continue operate as long as they are in compliance with federal, state, and local environmental regulations.

4. Commercial and Recreational Fisheries

The productive water bodies in and around Craven County, i.e., Neuse and Trent Rivers, have been steady and valuable contributors to the local economy as well as provided many opportunities for recreational fishing. With increasing annual catches over the last several years, it appears that commercial fishing has the potential to expand in Craven County. It is, therefore, very important to continue those actions and programs which enhance and protect the water quality of productive fishing areas, i.e., the Neuse and Trent Rivers. In recent years, concern has been raised by commercial fishermen along North Carolina's Coast and the State Division of Marine Fisheries, that freshwater run-off (particularly from agricultural drainage) has been detrimental to estuarine waters by altering the salinity content. Concern also has been raised because of incidences of fecal coliform, coming from septic tank seepage, showing up in primary shell-fishing waters and forcing the "closing" of such waters. Craven County would like to see water quality in all of the productive water bodies improved and maintained.

As discussed previously, water quality has long been of concern in Craven County. Fishing can be detrimentally affected by poor water quality. Although significant strides have been made in recent years, the Neuse River has in the past experienced serious problems associated with "cultural entrophication," i.e., algae blooms. A number of positive actions have been taken to reduce both point and non-point sources of pollution into the waters, including the Neuse River being declared "nutrient sensitive" by the State Environmental Management Commission in January 1988. Craven County has been and remains supportive of these actions. It should be noted that in 1985, fish landings were higher than in many previous years, reaching near record levels.

a. Policy Alternatives

(1) Not impose additional local restrictions on land clearing, but continue to support existing State and local efforts to improve and maintain water quality, including the 404 permit process, enforcement of septic tank placement regulations, particularly in areas with unsuitable soils and high erosion areas, and the Agricultural Non-Point Cost Share Program.

b. Policy Choices

(1) The County will support enforcement of current State, federal and local regulations as well as support those activities undertaken to improve water quality in the Neuse-Trent Rivers, by state agencies.

(2) Continue to enforce the County's subdivision regulations, possibly requiring larger lot sizes for residences in areas where soils are not as well suited for septic tank placement in accord with rules enforced by the County Health Department.

c. Implementation Schedule

(1) Continue to support enforcement of existing regulatory provisions as outlined in b. above.

5. Off-Road Vehicles

The mention of "off-road" vehicles in coastal North Carolina usually conjures ideas of four-wheel drive type vehicles running up and down sandy beaches. However, there are no ocean beaches in Craven County. Nevertheless, off-road vehicles are important in some sections of the County because of the necessity for landowners or hunters to travel in wooded or swampy areas. As this property is private and not available to the public as public beaches are, the use of these vehicles is acceptable in these

cases. No other policy discussion on this issue is deemed necessary.

6. Residential and Commercial Land Development

Craven County, as discussed under sections of this report analyzing existing population and economic trends, Craven County is growing at a relatively rapid pace, with population growth from 1980-86 exceeding the pace from 1970 to 1980. The growth trend is projected to continue through the planning period and the County could face a "rapid growth" situation in which it will have to address issues resulting from increased residential, commercial, or industrial uses of land. Without ignoring the limitations presented in other policy discussions in this report Craven County would like to be in a position to accommodate additional growth and development as well as increasing tourism.

Additional development particularly commercial and industrial development, is regarded as desirable because of the important local revenue and employment generating impacts. The other policy statements regarding resource protection adequately voice the County's concerns regarding these resources. However, land development, whether for residential, commercial or industrial uses, compatible with existing constraints, (i.e., poor soils, flood hazards, etc.), and in conformance with existing regulatory controls, will be encouraged in Craven County.

A more detailed discussion of the specific types of development along with relevant policy statements are included in the following section, "Economic and Community Development Policies".

C. ECONOMIC AND COMMUNITY DEVELOPMENT POLICIES

The analysis of overall existing conditions and trends for this 1987 Update of the Craven County Land Use Plan has shown some emerging trends which will lead to modifying some of the general economic and community development policies contained in the 1982 Plan. Some relevant trends which have been identified include:

- An increasing rate of population growth in the County, especially in Townships 6, 8, and 7.
- Growth and/or stability of basic resource extraction economic activities, i.e., fishing and forestry, the decline of farming, and the increasing importance of manufacturing and tourism.
- Continuing improvement of the Neuse River's water quality.
- Increasing attractiveness of the County as a recreation and retirement area.
- Provision of centralized water services in currently low-denisty, relatively rural areas.

Craven County is very much concerned about the future growth of its economy and overall community development. As the population gradually increases, the economic base expands, and more dwelling units constructed, some additional pressures will be placed on community facilities. Sound public investment decisions on the part of the County will also have to be made. All of these issues and others are important in the formulation of land use policies. Particular required and other issue areas and policy statements are discussed below.

1. Types and Locations of Desired Industry

Although there are several significant industrial concerns located in the County outside of the incorporated municipalities, and the County has a relatively low unemployment rate, as the population increases, there will be a need for increased job opportunities. Manufacturing and industrial development could help provide these opportunities as well as aid in the expansion of the County's tax base.

Craven County would like to see industry developed which could expand upon the current major industries in the County. The County would like to attract industries which would not require excessive amounts of water and sewer facilities. Such industries would all be considered desirable as long as the integrity of environmentally sensitive areas could be assured of maintenance and stability. Also, other low-pollution, light manufacturing and/or assembly industries would be desirable.

a. Locations and Standards

The County would like to see industry locate, if feasible, in industrial parks such as the existing park on Highway 70 West, or others, which could be developed in suitable locations in the County. The existing industrial park is serviceable with water and sewer, and the County would prefer to place industries near established water and sewer services. Consequently, the "Committee of 100" has identified several potential sites adjacent to the incorporated municipalities. All industrial prospects will be required to comply with general development standards which are designed to protect environmentally sensitive areas, including:

(1) Providing an assessment of the impact of the development of the industry and be required to use the best available technology to avoid pollution of air or water during construction or operation.

(2) Be located on land having stable, well-drained soils. The sites should be located in areas adequately protected from flooding and be accessible to existing public utilities and transportation routes.

Some industries such as boat or ship maintenance and repair, may need to be close to water areas, or have adequate water access. Likewise, aviation-related industries may need to be located near the Simmons-Knott Airport.

b. Policy Alternatives

Possible policy alternatives concerning industrial development in Craven County include:

(1) Continue to support the active industrial recruiting program conducted by the Craven County Committee of 100

(2) Conduct studies to see which industry types may want to locate in the County, and assess possible environmental impacts

(3) Seek funding and technical assistance to develop an additional industrial park or parks within the County, such as an "Air Industrial Park" for aviation-related concerns, at or near Simmons-Knott Airport.

c. Policy Choices

As Craven County recognizes the need for continued economic expansion and the fact that industrial development can greatly enhance this expansion, the County hereby adopts the following position.

(1) The County, in cooperation with the incorporated municipalities, will continue to support an active industrial recruitment program, as currently conducted by the Craven County Committee of 100, seeking low-pollution, light manufacturing industries and those which do not require large commitments of water and/or sewer.

(2) Craven County should seek technical assistance and financial help to develop another industrial park, if the need dictates. The County also supports the eventual development of an Air Industrial Park near the Airport, for aviation-related concerns.

(3) The County believes that all industrial prospects should be given a fair, case-by-case assessment in order to carefully compare possible economic benefits with possibly negative environmental effects. Such reviews will be coordinated by Craven County through various County agencies and departments.

(4) The County will continue to seek to provide water and/or sewer through existing systems according to current policies, i.e., encourage new industries to pay their own costs of water and/or sewer extensions by offering to pay a portion of the potential tax revenues the industry may generate for five years.

d. Implementation Schedule

The County will continue to support existing efforts and maintain active contact with the State Department of Commerce industrial development representative for the region. The County will also support efforts to develop an industrial park near Simmons-Knott Airport.

2. Local Commitment to Service Provisions

Currently, the major service to development provided by the County is water, through the County-wide water system which is being provided through independent "sanitary districts" in several Townships. This system, independent of the municipal systems, is projected to eventually serve

all residential areas of the County. The capacity of the County water system should be adequate to meet projected demand based on population growth trends throughout the planning period (through 1996). A County-wide sewer system has been shown to be economically infeasible at the present time.

Craven County is committed to providing basic services such as water and, where feasible, sewer, to serve increased development in the County. The current development of water services in Townships 1, 3, and 9, is not being done with the intent of stimulating growth in these relatively low-density areas.

Other support facilities and services provided by or within the County such as police and fire protection, health services, social services, solid waste collection, and transportation facilities, may have to be increased gradually in order to be adequate throughout the planning period. As development occurs and the local tax base expands accordingly, increased levels of County-provided services will be more feasible.

a. Policy Alternative

(1) Encourage extension and expansion of needed services as much as feasible, to accommodate new residential, commercial, or industrial development.

b. Policy Choice

(1) Craven County will remain committed to providing needed services, as economically feasible, to accommodate new residential, commercial, and industrial development in the County.

c. Implementation Schedule

(1) The County will work with existing agencies and the incorporated municipalities throughout the period to encourage the provision of services where needed and as feasible.

3. Desired Urban Growth Patterns

Craven County is an urbanizing County, i.e., transitioning from a predominantly low-density rural, agricultural County to one with growing residential subdivisions of increasing densities. Historically, the density patterns of new extra-urban or suburban residential patterns were closely allied to the extent of water and/or sewer provi-

sions adjacent to already developed areas. This has also been true in Craven County. Development was attracted to the outskirts and fringes of New Bern, Havelock, Trent Woods, and more recently, River Bend. These incorporated areas are all located in Townships 6, 7 and 8. These Townships have continued to attract most of the residential growth in the County, primarily because of the proximity of urban services. Because of the development of Fairfield Harbor, Township 2 has also attracted more dense development in recent years. The other Townships, however, and as discussed previously, have not experienced substantial concentrations of growth.

In the near future, Townships 1, 3, and 9, encompassing the western more rural, low-density parts of the County, will be receiving centralized water service. Although the water system, which is to be quite extensive (see Map 8), is being developed with the expressed intent of not purposing to stimulate growth or density of development, just the presence of water services in a growing County could easily affect older, established density patterns. However, the presence of a relatively high concentration of soils with septic tank limitations and the absence of centralized sewer services will serve to somewhat limit densities in Townships 6, 7, and 8, even with centralized water. The enforcement of subdivision regulations, but no zoning, could also affect density in the area. Therefore, for a period of time, the residential urbanizing patterns will not change significantly. Major commercial land uses will continue to be primarily based on the patterns of thoroughfare and thoroughfare access, with some smaller "convenience" service centers developing to serve limited neighborhood needs. The County's policies on industrial land uses were presented in the preceding section.

The County has an actively enforced Mobile Home ordinance and mobile home has not presented many problems to-date.

Also, all future subdivisions will continue to have to comply with formal orderly development design standards in accord with the County Subdivision Regulations.

a. Policy Alternatives

(1) Craven County could encourage the continuation of existing residential development patterns through enforcement of the existing subdivision regulations and adoption and enforcement of a County-wide zoning ordinance.

(2) The County could modify the existing development patterns by developing a zoning ordinance which

could specify minimum lot sizes for certain districts and thereby affect density.

(3) Leave the existing development review process as is.

b. Policy Choices

(1) The existing low density rural communities which are scattered throughout the County are a long established residential pattern in Craven County. This pattern will continue to be encouraged by the County. However, the County will not encourage "new" developments in areas with identified limitations such as soils, flood hazards, or proximity to AECs.

(2) All newly developing subdivisions will have to adhere to the standards of the County subdivision regulations.

(3) Because of the expanding water service in previously unserved areas (Townships 1, 3, and 9), and the increasing potential for additional residential growth, it may become necessary to develop additional land development controls such as zoning to ensure orderly and well-managed growth.

(4) The County believes that dense urban development should only take place where both adequate water and sewer facilities are provided. This is especially true for commercial and industrial land uses.

c. Implementation Schedule

(1) In FY 87, assess existing development review process to determine if modifications are necessary, i.e., in subdivisions and mobile home park plat reviews.

(2) In FY 87, review the previously prepared draft zoning ordinance for adoption and any possible application to growth areas.

4. Redevelopment of Developed Areas

"Redevelopment" usually implies the refurbishing or rehabilitation of deteriorating areas already concentrated with development. Although there are a number of substandard structures located throughout Craven County, there are also several substantial concentrations or

"neighborhoods," with substandard conditions. Areas such as James City, Pembroke, North Harlowe, and some of the neighborhoods near Vanceboro, are all examples of areas with sufficient concentrations of substandard conditions, requiring redevelopment activities such as funded through a community development block grant. (See Map 8-A, page 64(a), for a graphic portrayal of these locations.) In such cases, it shall be the County's general policy to support applications for needed federal or state financial assistance. It should be noted that the County has received three previous block grant awards, two of which have been utilized in the James City area. The most recent grant award will be used to address conditions in the Pembroke area. Also, some redevelopment activities in the City of New Bern, such as along the waterfront, for example, may be of mutual benefit and/or interest of the County. Again, it shall be the County's position to support such activities.

a. Policy Alternatives

(1) Continue to seek funding through the State-administered Small Cities Community Development Block Grant Program to establish housing and public facilities improvements programs in identified needed areas as feasible.

(2) Continue to work with the City of New Bern and other municipalities in redevelopment projects of mutual concern and benefit, such as along the waterfront. The enhancement of the waterfront park at Union Point is a specific example.

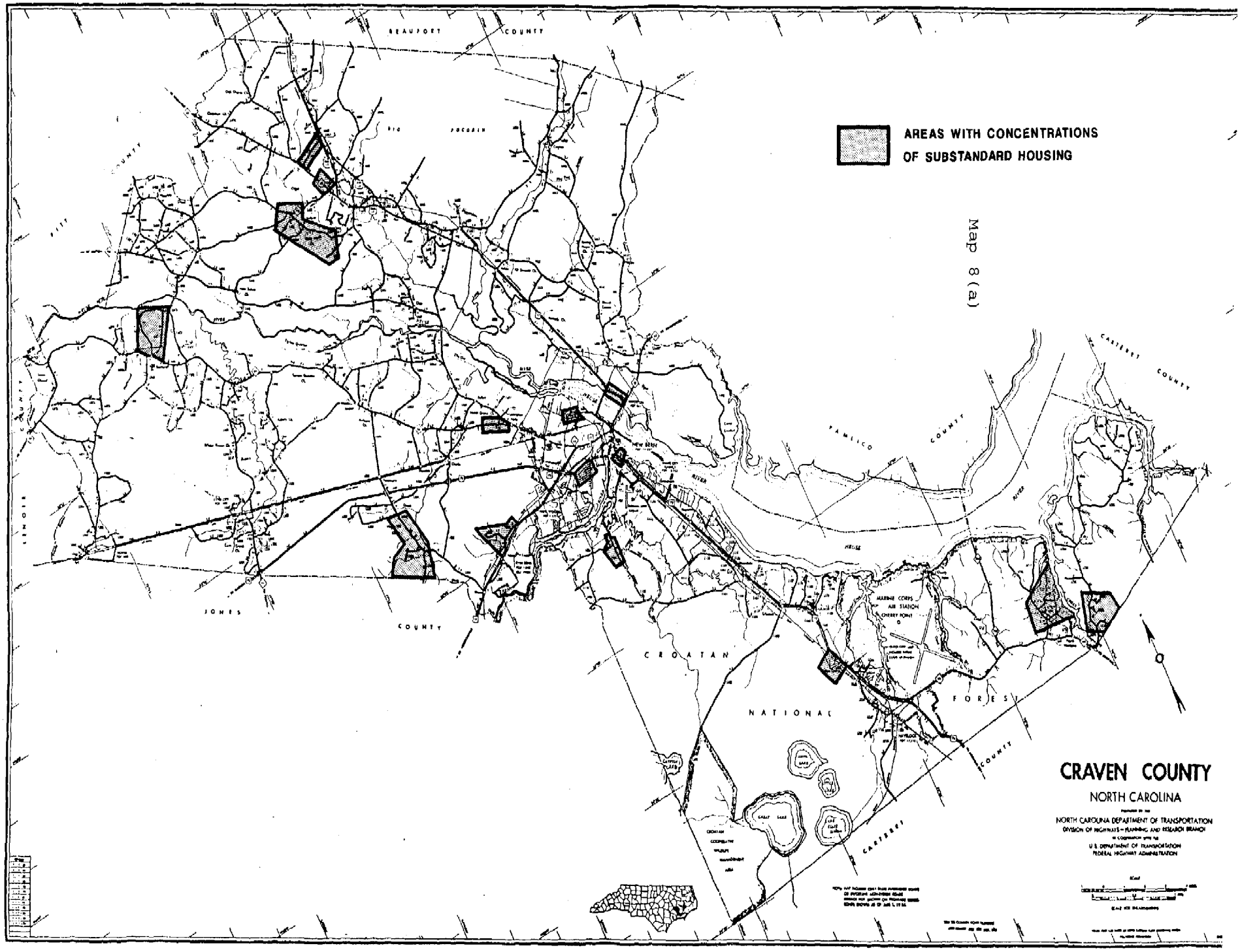
b. Policy Choices

(1) Craven County would like to see redevelopment/rehabilitation activities occur in communities identified as having concentrations of substandard housing and other neighborhood conditions. The County will try to link various redevelopment activities together where feasible.

(2) The County will continue to work with the City of New Bern in encouraging redevelopment activities of the waterfront area, such as Union Point Park, and other projects of mutual interest and concern.

c. Implementation Schedule

(1) In FY 87 and subsequent years, the County will apply for funds under the Small Cities Community Development Block Grant Program, to help rehabilitate and redevelop certain substandard areas.


AREAS WITH CONCENTRATIONS OF SUBSTANDARD HOUSING
CRAVEN COUNTY
NORTH CAROLINA
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS – PLANNING AND RESEARCH BRANCH
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
BEAUFORT COUNTY
PITT COUNTY
JONES COUNTY
PAMLICO COUNTY
CARTERET COUNTY
NEW BERN
MARINE CORPS AIR STATION CHERRY POINT
CROATAN NATIONAL FOREST
RIVER

Map 8 (a)

(2) In FY 88, apply for a Community Development Planning Grant in order to clearly identify neighborhood conditions, and to develop a County-wide "Community Development Plan."

5. Commitment to State and Federal Programs

Craven County is generally receptive to State and Federal programs, particularly those which provide improvements to the County. The County will continue to fully support such programs. The North Carolina Department of Transportation road and bridge improvement programs are very important to Craven County. In fact, Craven County would like very much to see U.S. Highway 17 four-laned throughout the County and adjacent communities. A new bridge across the Neuse River is also seen as a necessity, both for Craven County and neighboring Pamlico County as well. With well over 20,000 vehicles per day, boat traffic and vehicular traffic often conflict. The issue of a new bridge should be seriously studied by the State.

Examples of other State and Federal programs which are important to and supported by Craven County include: drainage planning and erosion control activities carried out by the U.S.D.A. Soil Conservation Service and the Agricultural Non-Point Pollution Control Cost Share Program, which is valuable to farmers; dredging and channel maintenance by the U.S. Army Corps of Engineers; and Federal and State projects which provide efficient and safe boat access for sports fishing. The County also supports Federal and State projects which enhance economic development and tourism.

All of these programs and others are important to Craven County, and the County is committed to their continued support.

6. Assistance to Channel Maintenance

Proper maintenance of channels, including periodic dredging, is important to Craven County, mainly because of the economic impact of commercial fisheries. If 1985 is taken as an indication, then water quality in the Neuse River is improving and commercial fishing is also increasing in the County's waters. If silt or other deposits fill in the channels, this could impede efficient mobility and docking of commercial and recreational vessels. With adequate channel maintenance, Craven County can make better utilization of its waterways for water transportation and recreation purposes.

7. Energy Facilities Siting

In some coastal counties, the siting or location of energy facilities relates to either peat mining or phosphate mining, or off-shore oil exploration. However, in the absence of significant peat reserves, phosphate, or oil resources within the County's jurisdiction, no specific, detailed policies in this area can be formulated at this time. As was noted in the 1982 Plan Update, the only deposits of peat or phosphate of any significance are located in the Croatan National Forest. In recent years, there was a proposal to develop a peat-fired power generating plant within the City of New Bern, with peat being brought in from Hyde County. However, the proposal has not been carried through. Nevertheless, should the siting of an energy facility become a realistic possibility for Craven County, it shall be the policy of the County to carefully review each such project and require strict adherence to federal, state, and any local environmental regulations.

8. Tourism and Beach and Waterfront Access

As discussed under the economic analysis section, tourism income has been steadily increasing and will likely have a significant impact upon Craven County's economy in the future. Although much of the tourist economy revolves around "Historic" New Bern, the County is becoming more attractive as a recreational area for boating and golfing. Craven County does support tourism and is aware of its potential economic benefit. As reported earlier, the County will employ a full-time director of its Tourism Development Authority, as of July 1, 1987. The County has also joined the "Keep America Beautiful" campaign, with plans to employ a Coordinator beginning January 1988. The importance of tourism is obviously recognized by County officials.

The provision of adequate access is an important concern of Craven County. To provide the County guidance for future development of access areas, a separate, detailed "Estuarine Access Development Plan" is being prepared coterminous with this Land Use Plan Update. Although policies concerning access development are contained in that document, it is important to include the policy discussion taken from that report.

a) **Policy Alternatives**

1. To ensure access in newly developing subdivisions along the waterways, the County could assume responsibility for maintenance and upkeep of these accessways

and provide free and open access to the general public.

2. The County could seek donations of land, bargain sales, or grant funds in order to obtain sites suitable for development as a water park or swimming area.

3. In the long term, Craven County would like to see an additional boat access ramp developed along the Neuse River that is free and open to the public.

4. Generally, the County is committed to pursuing development of at least one waterfront park, or similar facility, suitable for swimming, prefereably along the shoreline of the Neuse River.

b) **Implementation Strategies**

1. Craven County will, in FY 87-88, seek grant funding through the Coastal Resources Commission's Beach and Estuarine Access Program and/or other identified grant sources (see Appendix 1, "Potential Funding Sources") to acquire and develop a public swimming beach/ estuarine park. This will constitute the County's priority pursuit, in termsof access development.

2. In later years, FY 89 and beyond, the County will seek funding assistance to develop a riverine beach and visual enhancement area.

3. Also, as a long-term project, the County will request that the N.C. Wildlife Resources Commission develop a third public boating access ramp in the County.

4. Craven County will continue to maintain contact with and seek to work with appropriate agencies in order to develop adequate public water access sites in the County.

The County's tourism policies are shown below:

a) Policy Alternatives

1. The County could work independently of the other municipalities to promote tourism.

2. Craven County could work with the other municipalities and its Tourism Development Authority, as well as the Keep America Beautiful campaign, to promote the area's attractiveness.

Development Authority as a focal point, to promote the area and the economic importance of tourism. Promotion of the County's attractiveness will also be coordinated with the Keep America Beautiful campaign.

c) Implementation Schedule

In FY87-88, the County will hire its first staff for its Tourism Development Authority, and a coordinator for the Keep America Beautiful campaign.

9. Density of Development

Recently, overly dense development is not a problem in areas under Craven County's jurisdiction, but could become a problem during the period covered by this plan update. With an anticipated population growth of 19,096 persons between 1986 and 1996, (an increase of 23% over the 1986 estimate), the rate of growth, if continued in the currently developing Townships (6, 7, 8, and possibly 2) could not push developed densities to undesirable levels -- especially in the absence of adequate regulatory controls. However, a substantial amount of this population increase for the County will occur in the existing incorporated communities. As presented in other discussions in this report, the physical constraints to development are few, i.e., there are soils for suitable residential development in most of the County, and most of the County is not classified as frequently flooded areas according to the Flood Insurance Maps prepared by the Federal Emergency Management Agency (FEMA). (See Maps 5, 6, and 9, attached). Also, centralized water service is to be provided to the relatively undeveloped Townships of 1, 3, and 9. All of these are important factors affecting density policies in Craven County.

(a) Policy Alternatives

(1) The County could take a "hands off" approach and not have any policies on development densities, assuming that existing practices will "balance out" the County's growth.

(2) Strictly enforce the existing Subdivision Regulations, as well as the to-be-adopted Zoning Ordinance, which will contain specific density controls, i.e., lot sizes, etc., and support decisions of the County Health Department concerning septic tank placement.

(b) Policy Choices

(1) Craven County, generally, would like to see development continue in areas considered as most feasible to accommodate the anticipated growth and development, where support services such as water, sewer (including septic tanks where necessary) are feasible and where practical to provide.

(2) The County would like to see continued enforcement of existing density and development controls, i.e., subdivision regulations and septic tank permits, and will consider the adoption of additional controls such as a County-wide Zoning Ordinance.

(c) Implementation Schedule

(1) The County will continue to enforce and support existing density and development controls.

(2) In FY 87-88, Craven County will review and update its previously prepared County-wide Zoning Ordinance for consideration of adoption.

D. CONTINUING PUBLIC PARTICIPATION POLICIES

Craven County recognizes that an important element in developing and implementing any local policies or plans regarding the use of land in the County, is involvement of the County's citizenry. From the initial stages of development of this 1987 update of the County's CAMA Land Use Plan, Craven County has sought to provide open opportunities for citizen input. A "Public Participation Plan" was developed for the plan updating process, outlining the methodology for citizen involvement. The plan stated that public involvement was to be generated primarily through the County Planning Board and through "public information" meetings, advertised in local newspapers and open to the general public. The Planning Board meetings also were advertised to the public and open to the general public. Specifically, such meetings were held on the following dates: July 24, August 28, and December 19, 1986; February 26, March 26, and April 23, 1987. As an ongoing part of its Planning program, the County will continue to publish notices of meetings.

E. STORM HAZARD MITIGATION, POST-DISASTER RECOVERY, AND EVACUATION PLANS

The entire North Carolina Coastal region, including Craven County, faces strong threats of damage each year from hurricanes, Northeasters, or other major storms. For nearly 20 years, there was a marked "slowdown", or "lull", in hurricane activity along the State's coast. Predictions were that a major storm could strike the State at any time during the hurricane season, since such a storm was "long overdue". And then, in September, 1984, the "waiting" ended. Hurricane Diana, with some of the strongest sustained winds ever recorded, rammed into the Southeast coast near Wilmington. Although damage was extensive, the potential destruction was much greater and the damage would have been greatly escalated had the storm hit land at a slightly different location. Again, a little over a year later in late September, 1985, coastal North Carolina faced another serious threat from Hurricane Gloria. Fortunately, this storm veered off the coast, took a northerly turn, and left no more than a good drenching for some areas. For two consecutive years, the State and the coastal areas were relatively fortunate. But what about next time?

Notice the excerpt below from, Before the Storm: Managing Development to Reduce Hurricane Damages, McElyea, Brower, & Godschalk, 1982, concerning development in coastal communities:

> "At the same time, development along the coast has grown by leaps and bounds. Unless this development is wisely located and built to withstand hurricane forces, North Carolina's coastal communities will face massive destruction. Local governments, as the primary protectors of the public health, safety, and general welfare, have a responsibility to reduce the risk of property damages and loss of life attending coastal development. They also have a responsibility to ensure that reconstruction following a major storm can occur quickly and leave the community safer from disaster in the future. These are the goals of hazard mitigation and reconstruction planning." (p.iii)

The purpose of this section of the 1987 CAMA Land Use Plan Update, is to assist Craven County in managing development in potentially hazardous areas through establishing hazard mitigation policies and to reduce the risks associated with future hurricanes by developing post-disaster reconstruction/recovery policies, and reviewing the adequacy of current evacuation plans. As stated previously, unlike many other coastal counties, Craven County developed a separate policy document in 1984. While it is not necessary to reproduce the entire report here, it is useful to include relevant policies in this 1987 Plan Update.

1. Storm Hazard Mitigation: Discussion

Hazard mitigation, or actions taken to reduce the probability or impact of a disaster could involve a number of activities or policy decisions. The starting point, however, is to identify the types of hazards (including the relative severity and magnitude of risks), and the extent of development (including residential, commercial, etc.) located in storm hazard areas. This information is presented in some detail in the County's separate mitigation policy report.

Hurricanes are extremely powerful, often unpredictable forces of nature. The two most severe effects are fatalities and property damage, which are usually the result of four causes: high winds, flooding, wave action, and erosion, each of which were described in the report previously referenced and are discussed briefly below:

a. High Winds

High winds are the major determinants of a hurricane, by definition, i.e., a tropical disturbance with sustained winds of at least 73 miles per hour. Extreme hurricanes can have winds of up to 165 miles per hour, with gusts up to 200 miles per hour. These winds circulate around the center or "eye" of the storm. Although the friction or impact of the winds hitting land from the water causes some dissipation of the full force, there is still a tremendous amount of energy left to cause damage to buildings, overturn mobile homes, fell trees and powerlines, and destroy crops. Also, tornadoes can often be spawned by hurricane wind patterns. Wind stress is an important consideration in storm hazard mitigation planning. Because of a hurricane's size and power, it is likely that most of Craven County, except the northern and westernmost parts of the County, would be subject to the high wind velocity in the event of a storm.

b. Flooding

Flooding, on the other hand, may not affect all areas with equal intensity. The excessive amounts of rainfall and the "storm surge" which often accompany hurricanes can cause massive coastal and riverine flooding causing excessive property damage and deaths by drownings. (More deaths are caused by drowning than any other cause in hurricanes.) Flooding is particularly a problem in ocean coastal areas because of the storm surge and low-lying areas. However, flooding can cause extensive damage in inland areas also, since many coastal areas have low elevations and are located in high hazard or "Zone A" flood areas according to the Federal Emergency Management Agency Maps. Based on the most recent flood insurance maps prepared for Craven County (which were not available in 1984), the majority of the County is not classified as being in the 100-year "high hazard" flood zone, or Zone "A."

Substantial portions of the County are classed as Zone "C," i.e., minimally flooded. (See Map 5.) However, because of low elevation, the majority of the County could be subject to flooding during a severe hurricane. Although there are areas classified as "Zone C", i.e., in the 500-year "minimally flooded" area, in severe storms, Zone "C" areas would also likely be flooded. The risks, however, are not as severe as for Zone "A" areas. (See Map 9, "Composite Hazards Map," attached.)

c. Wave Action

Damage from wave action is connected very closely to the storm surge, i.e., wind-driven water with high waves moving to vulnerable shoreline areas. Areas most likely to be affected are ocean erodible areas and estuarine shoreline areas. There are no ocean erodible areas in Craven County, but there are extensive estuarine shoreline areas (75 feet inland from the mean high water mark of estuarine waters) in the County. However, wave action damage would have the most significant impact along the Neuse River shoreline.

d. Erosion

The final major consideration in storm hazard mitigation is severe erosion, caused by high winds, high water, and heavy wave action. Again, in Craven County, the area most susceptible to storm-related erosion is the estuarine shoreline AEC along the Neuse River.

e. Summary: Storm Hazard Mitigation Considerations

In summary, all four of the major damaging forces of a hurricane, i.e., high winds, flooding, wave action, and shoreline erosion could have a potential impact upon Craven County in the event of a major storm. The degree of susceptibility to losses and/or damages was generally alluded to in the previous discussions. However, the 1984 hazard mitigation plan noted that approximately 30% of all of the County's housing units, representing 282.8 million dollars of value, were subject to damage under "worst" conditions (page 14-15, Hazard Plan).

f. Policy Statements: Storm Hazard Mitigation

In order to minimize the damage potentially caused by the effects of a hurricane or other major storm, Craven County proposed the following policies.

(1) High Winds: Craven County supports enforcement of the N. C. State Building Code, particularly requirements of construction standards to meet wind-resistive factors, i.e., "design wind velocity". The County will also support provisions in the State Building Code requiring tie-downs for mobile homes, which help resist wind damage.

(2) Flooding: Craven County is supportive of the hazard mitigation elements of the National Flood Insurance Program. Currently, Craven County is actively participating in the regular phase of the insurance program and has adopted and enforces a Flood Damage Prevention Ordinance. Craven County also supports continued enforcement of the CAMA and 404 Wetlands development permit processes in areas potentially susceptible to flooding.

3. Wave Action and Shoreline Erosion: Craven County is supportive of the CAMA development permit process for estuarine shoreline areas and the requisite development standards which encourage both shoreline stabilization and facilitation of proper drainage.

g. Implementation: Storm Hazard Mitigation

(1) Craven County has an established County-wide building inspection program, including the services of a building inspector to enforce provisions of the N. C. State Building Code for new construction. These provisions include design requirements for wind resistance and mobile home tie-downs for newly placed mobile homes.

(2) Craven County has also adopted and enforces through its building inspection program, a Flood Damage Prevention Ordinance for the Regular Phase of the National Flood Insurance Program. This ordinance which requires basic floodproofing for all new construction, including all first floor elevations being at or above the base flood elevations, will continue to be enforced as part of the County's building inspection program. The base flood elevation, as shown on the flood insurance maps, is the elevation of the 100-year flood.

(3) The County will continue to support enforcement of State and Federal programs which aid in mitigation of hurricane hazards, including CAMA and the U.S. Army Corps of Engineers 404 permit process.

2. Post-Disaster Reconstruction Plan

Craven County recognizes that in the event of a major storm, it will be very important to have, at a minimum, a general recovery and reconstruction plan. A very detailed and specific plan is contained in the previously referred to 1984 document. The 1984 plan contains detailed provisions for damage assessments, and lines of authority. However, it should be noted that Craven County provides a number of emergency services, including disaster management. These services are coordinated by a full-time Emergency Services Coordinator. All of the County's emergency and disaster plans, including those dealing with the effects of a hurricane, are maintained by the Emergency Services Coordinator. All of the actions are coordinated with the incorporated municipalities.

Although many elements of "Post-Disaster Recovery" are already addressed in existing plans, some useful issues are not addressed. This section of the Land Use Plan Update will address these issues.

a. Appointment of a Recovery Task Force

Prior to a major storm having landfall in the vicinity of Craven County, when evacuation orders are issued, the County shall appoint a "Recovery Task Force". This team shall consist of the following:

(1) Craven County Manager
(2) Assistant Manager
(3) County Tax Assessor
(4) Emergency Service Coordinator
(5) County Finance Officer
(6) County Planning Director

The Emergency Preparedness Coordinator will serve as the Team Leader and will be responsible to the Chairman of the Board of Commissioners. The base of operations will be the Emergency Operations Center (EOC) identified in the County Evacuation Plan. The Recovery Task Force will be responsible for the following:

(1) Establishing an overall restoration schedule.

(2) Setting restoration priorities.

(3) Determining requirements for outside assistance and requesting such assistance when beyond local capabilities.

(4) Keeping the appropriate County and State officials informed.

(5) Keeping the public informed.

(6) Assembling and maintaining records of actions taken and expenditures and obligations incurred.

(7) Recommending to the Chairman of the Board of Commissioners to activate the local "state of emergency" ordinance if warranted.

(8) Commencing and coordinating cleanup, debris removal and utility restoration which would include coordination of restoration activities undertaken by private utility companies.

(9) Coordinating repair and restoration of essential public facilities and services in accordance with determined priorities.

(10) Assisting private businesses and individual property owners in obtaining information on the various types of assistance that might be available to them from federal and state agencies.

b. Immediate Clean-Up and Debris Removal

Coordination of this activity will be the responsibility of the Recovery Task Force.

c. Long Term Recovery/Restoration

The Recovery Task Force will be responsible for overseeing the orderly implementation of the reconstruction process after a major storm or hurricane in accord with the County's policies.

(1) Damage Assessments: Damage assessments will be necessary to determine as quickly as possible a realistic estimate of the amount of damage caused by a hurricane or major storm. Information such as the number of structures damaged, the magnitude of damage, and the estimated total dollar loss will need to be developed.

As stated previously, Craven County already has a detailed "Damage Assessment Plan," which was prepared in accordance to guidelines provided by the N.C. Division of Emergency Management. In the Plan, certain personnel are assigned to two Damage Assessment Teams (one for private property and one for public property). The damage assessment activities are to be coordinated by the Emergency Services Coordinator.

Also, the Plan includes a Damage Assessment Guide, which provides a rule-of-thumb for estimating damages to real property and placing the damage in one of the four categories below:

HABITABLE	10%
MINOR DAMAGE - UNINHABITABLE	25%
MAJOR DAMAGE - UNINHABITABLE	50%
DESTROYED - UNINHABITABLE	100%

(2) Reconstruction Development Standards: Generally, reconstruction shall be held at least to the same standards as before the storm. However, developed structures which were destroyed and which did not conform to the County's storm hazard mitigation policies, i.e., with basic measures to reduce damage by high winds, flooding, wave action or erosion, must be redeveloped according to those policies. Non-conforming uses in areas subject to the zoning ordinance will comply with provisions of the ordinance if destroyed. In the event the loss of property containing shoreline structures is substantial enough to prohibit the reissuing of a septic tank permit, the County will support the decision of the Sanitarian. In some instances, this may mean relocation of construction, or no reconstruction at all. To the extent feasible, when relocation is required, such relocation will be placed

in less hazardous areas. Building permits to restore destroyed or damaged structures, which were built in conformance with the State Building Code and County storm hazard mitigation policies (including the subdivision regulations and, where applicable, the zoning ordinance), shall be issued automatically. All structures suffering major damage will be repaired according to the State Building Code. All structures suffering minor damage, regardless of location, will be allowed to be rebuilt to the original condition prior to the storm.

(3) Development Moratoria: Craven County, because of a lack of densely populated areas, does not foresee the need to prohibit any and all development for any specified period of time. Residents shall be allowed to proceed with redevelopment and reconstruction as soon as practical and in accord with the various levels of State and federal disaster relief provided to them. Damage to the properties in some areas of the County may indicate a higher susceptibility to storm damage than other areas. If the County determines that some areas are more vulnerable to storm damage than others, then the Board of Commissioners may declare a development moratorium, prohibiting all redevelopment for a specified period of time. This will allow the County time to assess previous damage mitigation policies for their effectiveness and possible modification.

(4) Repair/Reconstruction Schedule: The following schedule of activities and time frame are proposed with the realistic idea that many factors of a hurricane may render the Schedule infeasible.

Activity	Time Frame
(a) Complete and Report Damage Assessments	Two weeks after storm
(b) Begin Repairs to Critical Utilities and Facilities	As soon as possible after storm
(c) Permitting of Reconstruction activities for all damaged structures ("minor" to pre-storm original status, "major" to State building code and hazard mitigation standards	Two weeks after damage assessments are complete

(5) Agency Responsible for Implementation: The Chairman of the Craven County Board of Commissioners, as chief elected official of the County, will be the chief responsible authority in implementing these policies. The Board Chairman will delegate the oversight of the reconstruction and recovery effort and implementation of the plan.

(6) Repair and Replacement of Public Utilities: If water lines or any component of the water system are damaged and it is determined that the facilities can be relocated to a less hazardous location, then they will be relocated during reconstruction. Damage to other utilities, such as electric lines or telephone lines, will be the responsibility of the appropriate private utility company.

3. Hurricane Evacuation Plan

Craven County, as stated previously, has an official "Hurricane Evacuation Plan" which was prepared in June, 1984. A review of this plan indicates that it is generally adequate for the County's needs.

4. Re-Entry

Factors regarding re-entry are also included in the Hurricane Evacuation Plan. Because of the possibility of fallen power lines, or telephone lines, re-entry will be closely coordinated with the appropriate private utility companies.

The Craven County Plan has been reviewed by the North Carolina Division of Emergency Management and meets the agency's approval.

The evacuation plan will be incorporated into the Land Use Plan by reference.

SECTION III :

Land Classification System

SECTION III: LAND CLASSIFICATION SYSTEM

The land classification system provides a uniform way of looking at how the planned use of land interacts with environmentally sensitive areas and with the development of a County or Town. It is not a strict regulatory device in the sense of a zoning ordinance or zoning map. It represents more of a tool to understand relationships between various land use categories and how these relationships help shape local policy. Particular attention is focused on how intensely land is utilized and the level of services required to support that intensity. Land classification is also useful in the staging of services necessary to support development. The regulations for the Coastal Area Management Act state:

> "The land classification system provides a framework to be used by local governments to identify the future use of all lands. The designation of land classes allows the local government to illustrate their policy statements as to where and to what density they want growth to occur, and where they want to conserve natural and cultural resources by guiding growth." (7B.0204) (b)

There are five general land use classifications under CAMA: Developed; Transition; Community; Rural; and Conservation. In applying the land classification system, each local government should give careful consideration to how, where and when certain types of, and intensity of "development," will be either encouraged or discouraged. A brief summary of the five broad classifications, as contained in the CAMA rules, might illustrate this. For example:

> "Urban land uses and higher intensity uses which presently require the traditional urban services should be directed to lands classified developed. Areas developing or anticipated to develop at urban densities which will eventually require urban services should be directed to lands classified transition. Low density development in settlements which will not require sewer services should be directed to areas classified as community. Agriculture, forestry, mineral extraction and other similar low intensity uses and very low density, dispersed residential uses should be directed to lands classified rural. Generally, public or private water or sewer systems will not be provided in areas classified rural as an incentive for intense development." (7B.0204) (c)

The purpose of the conservation class is to "provide for the effective long-term management and protection of significant, limited, or irreplaceable areas." Consequently, urban services (whether public or private) should not be provided to those areas as an incentive to "stimulate" more intense development. Each of these classes must be represented on a Land Classification Map.

The five land classifications and Land Classification Map are therefore intended to serve as a visual reflection of the policies previously stated in Section II. Ideally, the map which depicts these classifications should be as flexible as the policies that guide them. (See Map 10, attached, Land Classification Map)

The five land use classifications, as they will be applied in Craven County, are identified and defined below.

A. DEVELOPED

The developed class of land use provides for continued intensive development and redevelopment of existing cities or municipalities. Areas to be classified as "developed" include lands currently developed for urban purposes or approaching a density of 500 dwellings per square mile that are provided with usual municipal or public services, police and fire protection. In other words, such areas must currently be "urban" in character, i.e. have mixed land uses such as residential, commercial, industrial and institutional, or other uses at high to medium densities.

In Craven County, the principal areas meeting this criteria are incorporated municipalities of New Bern, Havelock, Trent Woods, and River Bend. The Town of Vanceboro is also approaching this level of development density. All of these municipalities provide the usual urban services such as water and sewer. In some instances, water and sewer services are provided on a limited basis to areas outside of the municipal boundaries, but within the immediate environs. These areas also should be considered "developed." These municipalities, with the exception of Vanceboro, have their own local land use plans, which may be consulted for details on the respective development policies. (It should be noted that New Bern, Havelock, and Trent Woods, but not River Bend, all exercise the up-to-one-mile extraterritorial jurisdiction.)

As noted previously, within the County, beyond close proximity to municipal boundaries, water service is to be provided on a rather extensive basis to Townships 1, 3, and 9. However, the provision of water was not intended to be an impetus to spur intense development in these areas. Therefore, the areas served by these new waterlines, as shown on Map 8, attached, will not generally be classified under the higher intensity categories; i.e., "developed or transition."

However, the James City area and portions of Township 7 within the County's jurisdiction, have both water and sewer, and will be classified as "developed."

B. TRANSITION

Transition land is classified as those lands providing for future intensive urban development within the ensuing ten

years on lands that are most suitable and that will be scheduled for provision of necessary urban utilities and services (whether from public or private sources). They may also provide for additional growth when additional lands in the developed class are not available or when they are severely limited for development.

Lands classified "transition" may include:

- lands currently having urban services;
- lands necessary to accommodate the population and economic growth anticipated within the planning jurisdiction over the next five to ten years;
- areas which are in, or will be in, a "transition" state of development, i.e. going from a lower intensity to a higher intensity, of uses and will eventually require urban services.

Transition lands must further:

- be served or be readily served by water, sewer, and other urban services including streets, and
- be generally free of severe physical limitations for urban development.

The "transition" class should not include:

- lands of high potential for agriculture, forestry, or mineral extraction, or land falling within extensive rural areas being managed commercially for these uses, when other lands are available;
- lands where urban development might result in major or irreversible damage to important environmental, scientific, or scenic values, or;
- land where urban development might result in damage to natural systems or processes of more than local concern; and
- lands where development will result in undue risk to life or property from natural hazards or existing land uses.

The areas to be classified as "transition" in Craven County include some areas which were noted as such in the 1982 Plan and some areas which have started developing since then. The current transitioning areas include rather extensive areas in Townships 6 and 7, especially along a "corridor" either side of U.S. Highway 70 east from New Bern toward Havelock. This area has seen and is seeing increasing development since 1982. Also, of significance since the 1982 Plan, is the approval of new subdivisions in Township 5 east of Havelock. Some of these areas also will be classified a "transition." In Township 2, primarily because of the intensified rate of growth in Fairfield Harbor, the amount of transition lands have been

expanded, compared to the 1982 Land Classification Map. Other notable "transitionary" areas include new residential areas along U.S. Highway 17 south near River Bend, and a few small subdivisions in Township 8.

Most of the "transition" areas in Craven County have, or will receive during the planning period, centralized water services. Therefore, the County proposes to establish transition "corridors" along major secondary routes in Townships 1, 3, and 9 where water will be available during the planning period. These corridors, as shown on Map 10, will extend approximately 500 feet on either side of the roadways. It should also be noted that while some of the transition areas are located in the 100-year flood zone, the County actively participates in National Flood Insurance Program and regulates building and development in these areas through enforcement of its Flood Damage Prevention Ordinance.

The relationship between the "developed and transition" classification is important in "urbanizing" rural counties like Craven. The first class is meant to define the already developed areas and/or those areas where public investment decisions will be required to provide the necessary urban services. These become important areas to closely monitor. The Coastal Resources Commission has further clarified this relationship as described below:

> The Developed and Transition classes should be the only lands under active consideration by the County or municipality for intensive urban development requiring urban services. The area within these classes is where detailed local land use and public investment planning will occur. State and Federal expenditures on projects associated with urban development (water, sewer, urban street systems, etc.) will be guided to these areas. Large amounts of vacant land suitable for urban development within the Developed class should be taken into account when calculating the amount of additional lands needed to accommodate projected growth.

C. COMMUNITY

The purpose of the community class is to provide for clustered, mixed land uses at low densities to help meet the housing, shopping, employment, and other needs in rural areas. Areas meeting the intent of the community class are presently developed at low densities which are suitable for private septic tank use. These areas are clustered residential and/or commercial land uses which provide both low intensity shopping and housing opportunities, and provide a local social sense of "community." Very limited municipal-type services, such as fire protection and community water, may be available, but

municipal-type sewer systems are not to be provided as a catalyst for future development. In some unusual cases, sewer systems may be possible, but only to correct an existing or projected public health hazard. Areas developed at low density in a cluster meet the intent of the community class if they exhibit characteristics, such as:

- densities of less than 500 dwellings per square mile, or
- few residential development densities which meet or exceed three dwellings per acre, or
- residential lot sizes of 15,000 square feet or greater, and/or
- low population densities such as 640 persons per square mile (one person per acre)

This is, and has been historically, an important classification in Craven County, since most of the County's population not residing in the areas classified previously as either "Developed" or "Transition," live in such clusters. There are many small communities located along the primary roads in the County. Areas classified as "Community" include: Jasper, Ft. Barnwell, Askin, the area south of and adjacent to Cove City, North Harlowe, and the Riverside area in the northwest sector of the County. Nearly all of these areas currently are to be serviced by the County water system during the planning period. However, as noted previously, the water service was not intended to be a catalyst for intense developments.

D. RURAL

The Rural classification in Craven County will be subdivided into two subclasses--Rural Services and Rural General. These are described below:

1. Rural General

The purpose of the "Rural General" class is to provide for agriculture, forestry, mineral extraction, and various other low intensity uses on large sites, including low density dispersed residential uses where urban services are not and will not be required. Any development in this class should be compatible with resource production and should not significantly impair or permanently alter natural resources. Areas meeting the intent of this classification are appropriate for or presently used for agriculture, forestry, mineral extraction, and similar allied uses. Very low density dispersed, single-family residential uses are also appropriate within rural areas where lot sizes are large and where densities do not require the provision of urban-type services. Private septic tanks and wells are the primary on-site services available to support residential development, but fire, rescue squad, and sheriff protection may also be available. Population densities may be very low, possibly less than one person per acre.

The majority of land within Craven County's jurisdiction falls within the "Rural General" classification. This classification is very important in Craven County, because of the continuing economic importance of agriculture and forestry activities.

2. Rural Services District

This district is very similar in use and purpose to the "Rural General" classification, except for the "services" distinction. The basic purpose of the Rural Services District is also to provide for agriculture, forestry, mineral extraction, and various other low-intensity uses on large sites. Low-density residential uses can be developed with access to water and/or sewer service. The residential lot sizes may be smaller than those found in the rural classification. Private septic tanks and wells have been replaced, or are in the process of being replaced, by water and sewer facilities. These services are intended to help mitigate soil and water quality problems and/or in order to correct threats to health or sanitary conditions. Population densities may be 2 to 3 persons per acre. Craven County will aggressively extend water and sewer services into rural services areas.

Also, as is the case with the "Community" classification, the extension of centralized sewer service may be necessary in order to correct threats to health or sanitary conditions.

E. CONSERVATION

The final land use category, according to CAMA guidelines, is the "Conservation" class, which provides for effective long-term management of significant, limited, or irreplaceable resources, specifically, and at minimum, all of the statutorily defined AECs. However, beyond the presence of AECs, other areas within the County, because of natural, cultural, recreational, productive, or scenic value, may also require similar "effective long-term management." Examples could include major wetlands (other than statutorily defined coastal wetlands); essentially undeveloped shorelines that are unique, fragile, or hazardous for development; lands that provide necessary habitat conditions (especially for remnant species); pocosins; special cultural, architectural, or archeological resources; or publicly owned water supply watersheds and acquifers.

The designation "Conservation" should not be misconstrued to imply "non-use," but does imply a need for careful and cautious management of any allowable use. For example, within a "conservation" area, there may be high ground areas which are suitable for "development," in which case development should

be allowed to take place under carefully managed conditions. The term "preservation," on the other hand, implies total restriction on all uses. Within lands designated Conservation, each proposal, or application for any "developed" use should be reviewed on a case by case basis.

Other than the statutorily-defined Areas of Environmental Concern, there are not many land additional areas in Craven County that have been specially identified as having special features conducive to being placed in the Conservation classification. Although the State Division of Archives and History has identified some general areas as having "high probability" as archeologically sensitive areas, no detailed comprehensive surveys have been completed which documents these areas. Three historic properties, however, have been placed on the National Registry of Historic Properties, and one additional property is on the State study list. The overall premise for the designation "Conservation" in Craven County will be to strike the delicate balance between careful long-term management of sensitive or valuable resources and the freedom of landowners to utilize their properties.

Therefore, in Craven County, the environmentally sensitive areas identified as Areas of Environmental Concern (AECs), i.e., Estuarine Waters, Estuarine Shorelines, and Public Trust Areas are classified as "Conservation." There are some coastal wetlands, or "salt marshes" present in Craven County although these areas are not as extensive as in some other Coastal conties. However, outside of these Areas of Environmental Concern, the primary designation of "Conservation" areas in Craven County will be for the purpose of sustaining shoreline stability, protecting water quality, along the County's estuarine waterways, and protecting certain wooded swamp areas from the encroachment of improper development.

Since, as stated previously, "Conservation" does not imply "Preservation," specific allowable uses in the Conservation class shall include:

- Drainage: Adequate drainage is essential to the economic vitality farming in some parts of Craven County; therefore, drainage facilities over and through these areas, but not with the intent of draining the Conservation areas for "developed" purposes, will be allowed. Such facilities may include diking, tiling, and piping systems.

- Low density residential development if and as allowed by the County Health Department and not opposed by the U. S. Soil Conservation Service. However, water and/or sewer services will not be extended to such a residential area merely to stimulate additional growth and development. On-site sewer services will be required and must be feasible.

- Water-oriented uses such as piers, docks, and marinas, if they are shown not to cause detriment to the estuarine waters or the Conservation lands.

- Necessary utility service lines, such as water, sewer, electrical, natural gas, etc., when it is demonstrated that the ecological system of the Conservation estuarine area will not be significantly altered. (As noted in Item 2 above, development of and/or extension of necessary utilities and services will not be done merely as a stimulus for additional growth and development, only to the extent needed).

- Roadways, when construction of roadways can be conducted without significantly altering the ecological system, and in compliance with existing federal, state, and local regulations.

- Timber harvesting with approved management practices.

- Barge landings.

- Marinas (upon careful determination that substantial pollution will not occur).

In conjunction with the Policy Statements section of this Plan, each application for a "developed" use in the Conservation classification, shall be brought before the County Planning Board and reviewed on a case-by-case basis, with possible technical advice from the County Health Department, Building Inspector, CAMA Permit Officer, U.S. Soil Conservation Service, and possibly other specialists, prior to approval. The County Planning Board may recommend modification of the Proposal.

F. LAND CLASSIFICATION SUMMARY

The proposed classification of land for varying levels of intensity and provision of public services in Craven County were presented in parts A through E, above. These classifications relate directly to the "policy statements" contained in Section II of this Plan. Additional information on the relationship between the land classification system and policies will be presented in the following Section IV.

SECTION IV

RELATIONSHIP BETWEEN POLICIES AND LAND CLASSIFICATION

SECTION IV: RELATIONSHIP OF POLICIES AND LAND CLASSIFICATIONS

As required by the Coastal Area Management Act, the land use plan must relate the policies section to the land classification map and provide some indication as to which land uses are appropriate in each class.

A. DEVELOPED AND TRANSITION CLASSES

As mentioned in the discussion of existing conditions, most of the County's growth will occur in and around currently developed and developing areas, i.e., Townships 6, 7, 8, and 2. These are areas where basic services such as water and community support services are available or might be feasible within the planning period. The developed and transition classes were specifically designated to accommodate these more intensively developed areas and land uses, including residential, commercial, industrial parks and open space, community facilities and transportation. Hazardous or offensive uses such as land application systems, power plants, and bulk chemical storage facilities will be located away from these classes.

B. COMMUNITY CLASS

Intensive development will not be encouraged in this class due to the lack of urban services and/or physical limitations. The general range of acceptable uses are limited to residences, isolated general and convenience stores and churches, and other public facilities. These areas are usually found at crossroads within the "rural" classification. Most of these areas will be served by the County water system, and because of the low-density development, do not require centralized sewage collection and disposal.

C. RURAL CLASS

The rural class is the broadest of the land classes and is designated to provide for agriculture, forest management, mineral extraction and other low intensity uses. Residences may be located within the rural class where urban services, other than the County water system, are not required and where natural resources will not be permanently impaired. Some large developments may be encouraged in the rural class when there is an absence of otherwise suitable land within the development and transition classes and/or when there is a possible threat to the urban populace. Such large developments or uses include airports, land application sewer systems, and power plants. The County also reserves the privilege of allowing specific types of industrial development in the rural areas if in the opinion of the government there will be no harmful or adverse effects from such a location.

D. CONSERVATION CLASS

The conservation class is designated to provide for effective long-term management of significant limited or irreplaceable areas which include Areas of Environmental Concern (undeveloped shorelines that are unique, fragile, or hazardous for development), and publicly owned gamelands and parks and cultural and historical sites. Development in the estuarine system should be restricted to such uses as piers, bulkheads, marinas, and other water-dependent uses. Policy Statements under Resource Protection, and Resource Production and Management in Section II of this plan address the County's intentions under this class. Also, a more detailed discussion of the Conservation classification, along with permissible uses, is included in the preceding Section III. Additionally, Craven County believes that uses such as roadways, utility lines, and water and sewer lines are appropriate in the conservation class, provided they comply with other appropriate regulatory agencies.

SECTION V: INTERGOVERNMENTAL COORDINATION:

SECTION V: INTERGOVERNMENTAL COORDINATION

Throughout the development of this Plan, effort was made to make the policies consistent and compatible with other local, State, and Federal requirements. At various stages during the Plan's development process, contact was made with the New Bern, Havelock, and River Bend in order to coordinate certain policy issues. Implementation of the Plan will likewise follow the same intergovernmental concern.

APPENDICES

NOAA COASTAL SERVICES CTR LIBRARY
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