

WILMINGTON - NEW HANOVER LAND USE PLAN UPDATE

1986 - 1995

POLICIES FOR GROWTH AND DEVELOPMENT

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For use by New Hanover County

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## REFERENCE INDEX

In an effort to interrelate the format of the 1986 Land Use Plan Update with State Land Use Planning Guidelines established in the N.C. Administrative Code, Subchapter 7B, this Reference Index has been produced. As has been previously stated, the 1986 Wilmington-New Hanover Land Use Plan Update consists of Technical Reports, along with this Policies for Growth and Development document. The purpose of the index, therefore, is to facilitate the cross-referencing of State Land Use Planning Guidelines with 1986 Land Use Plan Update Policies and Technical Reports.

The table below provides an outline of the State Land Use Planning Guidelines issues which are relevant to the Wilmington-New Hanover County Planning Area. Beside each issue are the Technical Report(s) reference (e.g., T.R. #2) or Policies for Growth and Development page number listing (e.g., 30-36) which contains a discussion of that issue. This table should serve to simplify the use of this document for both technical and non-technical readers.

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## INTRODUCTION

### WILMINGTON-NEW HANOVER LAND USE PLAN

The 1974 Coastal Area Management Act (CAMA) required the establishment of a cooperative program of coastal land management between local governments and the State of North Carolina for preparing, adopting and enforcing local land use plans.

The Wilmington-New Hanover Land Use Plan is an official public document adopted by the Wilmington City Council and New Hanover County Commissioners as a set of long-range, general guidelines for local decision-making. The Land Use Plan is also officially adopted by the State and is utilized by regional, State and Federal agencies in the preparation of coastal area plans and programs.

The Plan is designed to provide substantial guidance to City and County officials in the preparation of development plans, programs, regulations and incentives. The Plan also communicates local government policies to interested citizens and organizations.

While the Plan is not law in the sense of an ordinance, it is adopted, amended and updated by formal action of the City Council, the County Commissioners, and the N. C. Coastal Resources Commission.

This plan represents the second update to the original Wilmington-New Hanover CAMA Land Use Plan which was adopted by the City Council and County Commissioners in 1976. The first update to this original Plan occurred in 1981, in accordance with the five year update cycle mandated by State regulations. As with the original Plan and the previous Update, this Land Use Plan Update consists of two primary parts: (1) Technical Reports; and (2) Policies for Growth and Development.

The Technical Reports are eleven separate data inventory and analysis documents which were produced independently of this Policies for Growth and Development section. These reports contain the background information and statistical basis from which the policies were produced. Much of the information required under State guidelines for local land use plans is contained in the Technical Reports. These reports are summarized in the following section of this document, and are cross-referenced with the State land use planning guidelines in the Reference Index (pp. 67 - 68).

This document, Policies for Growth and Development, contains both official statements of policy and implementation directives necessary to carry out the intent of these policy statements. Included with these policies and implementation procedures is a Land Classification Map which provides a graphic statement of development policy for the Planning Area. Also contained in this document is an analysis of the major planning issues anticipated in the Planning Area, an inventory of the public participation measures utilized in the formulation of

planning issues and policies, and an "implementation scorecard", contained in a separate Appendix document, which outlines the steps taken by the City and County which carry out the policies established in the 1981 Update.

The City and County, as rapidly-growing coastal communities intimately concerned with their future development, recognize both the advantages and disadvantages of growth. Through adherence to the policies and implementation procedures established herein, the City and County can succeed in managing local development, rather than being managed by that development.

#### LAND USE PLANNING PROCESS

As Figure 1 indicates, the land-use planning process, which has occurred over a period of several years, contains several major steps. The first step is data collection and analysis. The data used in the development of this Update was obtained from numerous sources; however, these data sources can be grouped into two general categories: (1) Technical Reports and (2) Public Input. The Technical Reports contain information gathered or produced by the planning staffs; this information is typically objective planning information, such as population projections, economic forecasts, and facility needs analyses. Public Input, on the other hand, involves perceptual data - how citizens feel about their community and what the perceived community needs are. This generally subjective information was gathered through surveys, meetings and the Land Use Issues Week forum (see Appendix A: Public Participation).

Utilizing these two important information sources, the planning staffs produced a preliminary draft Land Use Plan Update. This preliminary draft received extensive public scrutiny through public hearings before the City Planning Commission, County Planning Board, City Council, County Commissioners and through a series of public meetings held as part of the Land Use Plan Month forum.

Modifications to the preliminary draft which were suggested at these meetings were then incorporated into a final draft Land Use Plan Update and, after approval by the City Council and County Commissioners, the draft was then forwarded to the Division of Coastal Management, staff arm of the Coastal Resources Commission, for circulation among agencies interested in reviewing the draft Plan. After State agency reviews, the planning staffs incorporated State comments into the Update. The final revision was considered and adopted by the Wilmington City Council, New Hanover Board of County Commissioners and N. C. Coastal Resources Commission at formal public hearings, thus replacing the 1981 Land Use Plan Update as the official land use planning guide for the Wilmington-New Hanover Planning Area.

CITY OF WILMINGTON - NEW HANOVER COUNTY  
 1986-1995 CAMA LAND USE PLAN UPDATE  
 PLANNING PROCESS

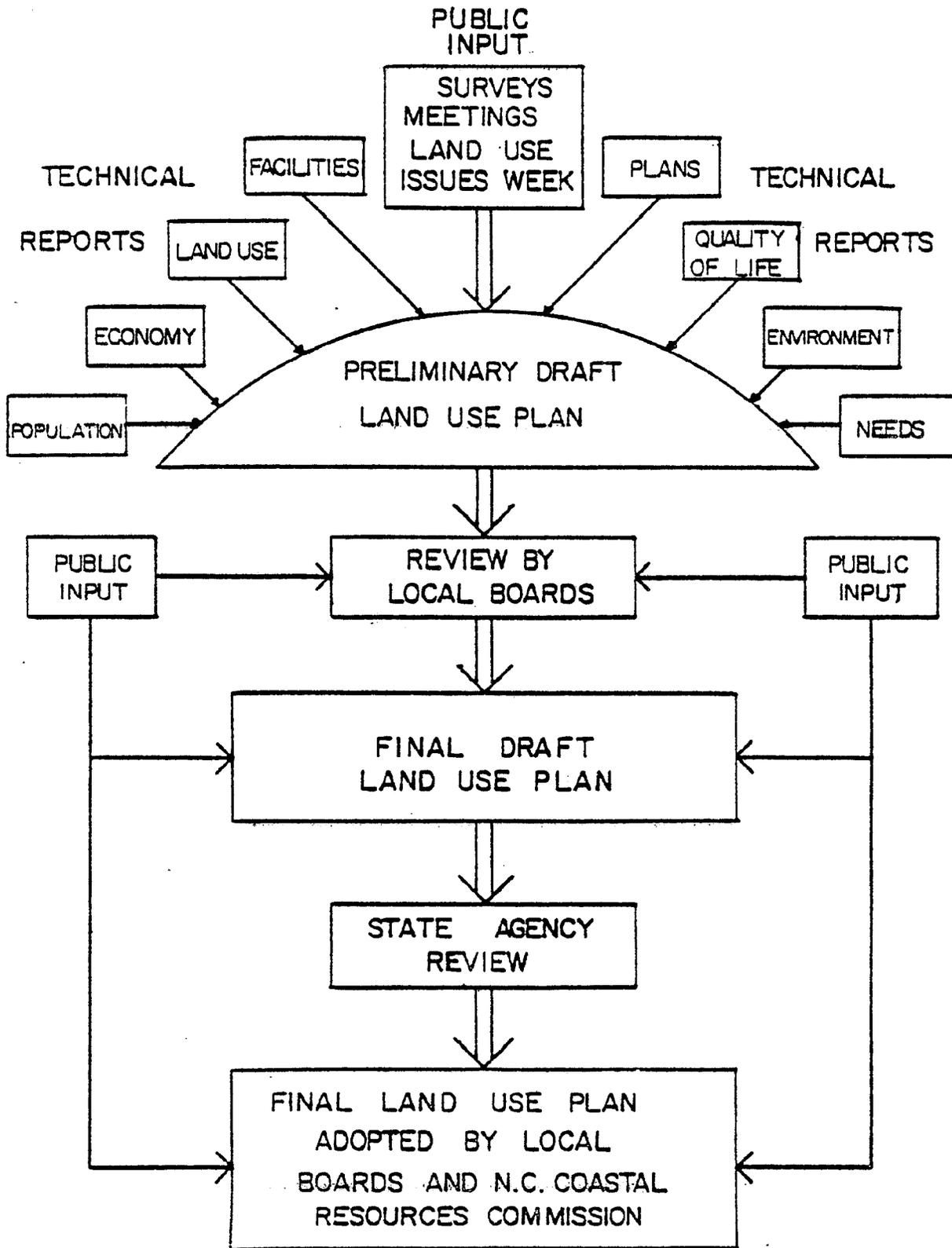


FIGURE 1

## THE TECHNICAL REPORTS

As previously mentioned, eleven Technical Reports were produced as part of the 1986 Land Use Plan Update planning process. These Technical Reports are summarized below; the entire text of each Technical Report may be obtained from the City Department of Planning and Development or the County Planning Department offices; primary sources for these texts are listed in parentheses beneath each report title. The New Hanover County Public Library has also received copies of these Technical Reports for inclusion in the main and branch libraries' reference sections.

### TECHNICAL REPORT NO. 1: POPULATION STUDY OF NEW HANOVER COUNTY (New Hanover County)

This Technical Report analyzes past and expected trends in the population growth of New Hanover County. Projections of population, both in total population growth and in selected population characteristics, are also provided in the Report.

A summary of some of this information is provided below.

#### Past Growth Trends

- 1) New Hanover experienced accelerating growth from 1950 to 1980. The average annual growth rate increased from 1.3 percent for 1950-60 to 2.2 percent in 1970-80.
- 2) The 1980 Census indicates that the County's population increased from 82,996 in 1970 to 103,471 in 1980. The County population in 1984, according to State estimates, was 110,139.
- 3) Since 1950, the County's average annual growth rate has been higher than the State's and presently is growing at one and a half times the State's rate. Consequently the County's share of the total State population is growing.

### Population Composition

- 1) Four major changes in the age structure of the County's population are expected during the 1980's and 1990's.
  - A. The percentage of older adults (35 and older) in the population is expected to increase significantly.
  - B. In the 1980's there will be a surge in the population of children aged 5 and under.
  - C. There will be a marked decline of the teenage population as a percentage of the total.
  - D. The population over 65 years of age will continue to increase in the 1980's and 1990's; however, the increase will be less dramatic than the 1970's. In the 1970's, the number of persons 65 and over increased by 49.9 percent. In the 1980's, it is expected to increase by 39.24 percent and, in the 1990's, by 21.15 percent. (These estimates take into account migration changes.)
- 2) The County's average household size, which fell by approximately .75 persons over the past two decades, is expected to further decline to levels of 2.51 persons in 1990 and 2.38 persons in 2000.

### Population Projections

- 1) New Hanover County is expected to grow by 17,428 residents during the 1980's with a projected total population of 120,899 in 1990. In light of recent increases in employment, however, this projection may be conservative.
- 2) Net in-migration will account for 65 to 70 percent of the County's growth during the 1980's with the remaining growth being attributed to natural increases.
- 3) Projected population growth for the 1980's represents an average rate of 1.5 percent; for the 1990's, this growth rate is estimated to be 1.3 percent.

### Subarea Trends

- 1) New Hanover County's population majority shifted from the City of Wilmington to the unincorporated area between 1970 and 1980.
- 2) Revitalization efforts and major annexations during the 1980's should work to reverse Wilmington's decline in population.
- 3) The beach municipalities experienced slight population increases during the 1970's. However, in the 1980's and 1990's, growth is expected to accelerate as the beach communities will continue to enjoy a building boom that began in the early 1980's.

TECHNICAL REPORT NO. 2:  
THE ECONOMY OF NEW HANOVER COUNTY  
(New Hanover County)

Technical Report No. 2: The Economy of New Hanover County provides an overview of past and forecasted economic growth trends for the Planning Area. A wide variety of economic data is incorporated in this report, including primarily employment and work force data for the various industrial and commercial sectors of the County.

Analysis of this information reveals the following major trends:

- (1) New Hanover County is strengthening its role as the trade and service center of southeastern North Carolina. Manufacturing employment, however, is becoming less dominant.
- (2) While manufacturing employment in New Hanover County since the early 1960's has exhibited sporadic growth, non-manufacturing employment (particularly trade and service industries) has shown steady, consistent growth.
- (3) In 1970, the County's non-manufacturing employment was only 69.6 percent of the total labor force compared to 78 percent for the United States. By 1983, however, the County's non-manufacturing employment had grown to 80%, nearly equal to 80.2 percent for the United States.
- (4) Total industrial employment (manufacturing and non-manufacturing) for the Planning Area has experienced significant growth between 1963 and 1984.
- (5) New Hanover County's industries have demonstrated a higher growth rate compared to growth trends for industries at the national level, particularly for non-manufacturing industries.

TECHNICAL REPORT NO. 3A:  
LAND USE ANALYSIS  
(New Hanover County)

This Technical Report provides an inventory of existing land uses in both unincorporated New Hanover County and the City of Wilmington. Included with this inventory of existing land uses is a discussion of the Management and Planning Information System (MAPS) currently under development by the City and County. MAPS will be utilized in developing, storing and retrieving information from a shared, integrated geographic data base for the Planning Area; its uses include various mapping and geoprocessing tasks required for planning, management, and utility projects.

A summary of 1985 land use information contained in this Technical Report is provided below.

1985 Land Use Summary Statistics  
for the City and Unincorporated County

<u>Land-Use</u>	<u>City of Wilmington</u>		<u>Unincorporated County</u>		<u>TOTAL</u>	
	<u>Acres</u>	<u>%</u>	<u>Acres</u>	<u>%</u>	<u>Acres</u>	<u>%</u>
Residential	5,471	39.9	28,009	62.3	33,480	57.1
Office and Institutional	1,417	10.3	3,710	8.2	5,127	8.7
Commercial	1,195	8.7	3,263	7.3	4,458	7.6
Transportation, Utilities, Communication	2,691	19.6	2,003 <sup>1</sup>	4.5	4,694	8.0
Industrial	1,264	9.2	7,265	16.2	8,529	14.6
Recreation	1,691	12.3	660	1.5	2,351	4.0
<b>TOTAL DEVELOPMENT</b>	<b>13,729</b>	<b>100.0</b>	<b>44,910</b>	<b>100.0</b>	<b>58,639</b>	<b>100.0</b>
Undeveloped, Timber and Agricultural	6,192	-	51,221	-	57,413	-
Water	511	-	18,982	-	19,493	-
<b>TOTAL</b>	<b>20,432</b>	<b>-</b>	<b>115,113</b>	<b>-</b>	<b>135,545</b>	<b>-</b>

<sup>1</sup>Does not include street and railroad rights-of-way.

A comparison of 1985 land use statistics with 1980 data indicates that total developed land increased from 34,640 acres in 1980 to 58,639 acres in 1985. Although this increase may be overstated due primarily to methodological differences between the two studies, it appears that increased development has occurred in all land use categories. This increase is especially pronounced in residential, commercial and office and institutional land uses.

TECHNICAL REPORT NO. 3B:  
LAND USE SURVEY AND ANALYSIS  
(City of Wilmington)

This Technical Report inventories existing land uses within the City of Wilmington and provides an analysis of growth trends which can

be ascertained from a comparison of existing (1985) land uses with 1980 land uses charted in a similar survey. A general discussion of the most important findings of this Technical Report follows.

### Annexation Areas A and B

Between 1980 and 1985, the total area within the Wilmington corporate limits has increased 31% from 14,068 acres to 20,431 acres. This occurred primarily because of two significant annexations of unincorporated, contiguous, urbanized neighborhoods:

- A. Southside and Pine Valley
- B. Winter Park

These neighborhoods contain large areas of single family housing, with some commercial, office/institutional, and recreation development. Southside contains the new N.C. Ports Authority terminal and several large industrial concerns.

### Growth Trends

1. More than 2,000 acres of single family housing have been added since 1980 due to Annexations A and B, an increase of 66% over 1980 single family acreage. Also, many homes in the Historic District have been returned to single family use from previous use as multi-family dwellings.
2. Over 400 acres of multi-family housing have been built within Wilmington since 1980, an increase of 77%. The growing popularity of this type of housing primarily results from the increasing costs of land and construction.
3. Office and institutional acreage has increased by 70% since 1980. This indicates the growing importance of the service sector in the local economy. However, the proportion of total developed land has decreased slightly, due to the large single family acreage added in Annexation Areas A & B.
4. Commercial and retail uses continue to increase, as well as the proportion of developed land which they occupy. Commercial recreation has also substantially grown as a category of land use as golf courses, a water slide, skating rink and other such establishments were included in recently annexed areas. The growth of commercial uses again reflects the increasing importance of the local service sector.
5. Wholesale, warehousing and industrial development has doubled since 1980. This increase is due to the addition of industrial areas on the Southside near the shipping terminal as well as the growth of industry and distribution facilities along North 23rd Street, near the Airport.
6. Parks and active recreation declined in percentage due to the addition of annexation areas which did not contain as large a proportion of public park land as within the City.

TECHNICAL REPORT NO. 4:  
COMMUNITY FACILITIES STUDY  
(City of Wilmington and New Hanover County)

The purpose of Technical Report No. 4: Community Facilities Study is to provide a brief description of the key facilities and services available in the City of Wilmington and New Hanover County. Emphasis is placed on types of service, service area, existing and proposed facilities available, labor involved, inventory of capital equipment, and recent changes within each facility. Facilities include City and County operations, and, in some instances, State facilities. An overall assessment of these facilities and their function will be helpful to community officials, planners and citizens in the period of rapid growth and change which is underway in the local area.

The following facilities are surveyed in this Technical Report.

- Fire and Emergency Protective Services
- Law Enforcement
- Sanitary Sewerage Systems
- Stormwater Drainage Systems
- Water Systems
- Refuse Collection and Disposal
- Streets and Roads
- Street Lighting
- School System and Educational Institutions
- Transportation
- Health and Social Services
- Parks and Recreation
- Library System and Cultural Facilities

Research Methods

Each applicable department or agency was contacted regarding each facility listed above. Data was gathered through interviews with officials responsible for operation of that particular facility, reports and brochures prepared by the department or agency, maps of appropriate locations and operations, and, in some instances, news accounts of that department or agency's operation.

TECHNICAL REPORT NO. 5A:  
PLANS, POLICIES AND REGULATIONS  
(City of Wilmington)

CAMA requires as part of the Land Use Plan Update the inclusion of a report on local land use plans, policies and regulations. This Technical Report summarizes plans, policies and regulations which the City of Wilmington has adopted and utilizes to guide the physical development and redevelopment of the City.

The following documents are summarized in this Technical Report:

- 1) Capital Improvement Program - The Capital Improvement Program is an annual summary of the City's priority capital projects needs and the work program, including expenditures, necessary to meet these needs over the next five years.
- 2) Floodplain Management Regulations - Development within the City's floodprone areas is regulated by this document adopted in 1978.
- 3) Historic District Regulations - These regulations adopted in 1983 establish standards for construction and alteration of structures within the City's Historic District in order to preserve the character of the area.
- 4) Land Use Plan: 1981 Update - The 1981 Wilmington-New Hanover Land Use Plan Update is an official public document adopted by the City Council and County Commissioners to guide the long-range development of the City and County.
- 5) Master Annexation Plan - This plan updated in 1982, examines the feasibility of annexing several developed areas in the vicinity of the City.
- 6) Master Plan: Parks, Recreation and Open Space - This 1976 plan provides guidelines for the acquisition of open space lands and for the construction of recreational facilities within the City and New Hanover County. The City is currently updating their plan.
- 7) Minimum Housing Code - This set of regulations, adopted in 1981, provides the standards necessary to insure safe, sanitary and decent housing for the citizens of the City.
- 8) Riverwalk Improvement Plan - This 1984 plan outlines a program of improvements to achieve a continuous walkway along the Cape Fear River in the City's downtown area.
- 9) Riverfront Plan - This plan, adopted in 1982, recommends a program of redevelopment and full utilization of the City's waterfront.
- 10) Short-Range Transit Plan - This 1983 Wilmington Transit Plan outlines a five year public transportation program for the City.
- 11) Subdivision Regulations - This 1979 ordinance regulates the subdivision of land within the City.
- 12) Thoroughfare Plan - This 1972 plan, currently being updated, provides guidelines for the development of local transportation improvements.
- 13) Water and Sewer Line Extension Policies - These policies, adopted in 1981, establish standards and financing requirements for water and sewer extensions inside and outside the City limits.
- 14) Zoning Regulations - The City's zoning regulations, substantially updated in 1984, provide standards for land use patterns with the City in order to insure the most appropriate use of land.

This Technical Report does not contain the entire text of the plans, policies and regulations listed but provides the reader with an outline that sets forth the title, statement of purpose, statement of summary and date of official adoption. For those needing more detailed information, an appendix at the end of the report provides a list of City offices where the entire text of each document may be found.

TECHNICAL REPORT NO. 5B:  
A SUMMARY OF PLANS, POLICIES, AND REGULATIONS  
IN NEW HANOVER COUNTY  
(New Hanover County)

The purpose of this Technical Report is to provide summaries describing County plans, policies and regulations that have some effect on the land use planning process utilized by the County. Each summary gives the purpose, principal features, and availability of the document.

The following plans, policies, and regulations are summarized in this report:

- (1) Capital Improvement Program (CIP) - The CIP determines when, where, and how the County will spend funds for capital projects involving public buildings and schools, utilities, transportation and recreation.
- (2) Floodplain Management Regulations of New Hanover County - These regulations govern development within floodplains.
- (3) Wilmington-New Hanover County Land Use Plan - This Plan establishes general policies for growth and development in the County.
- (4) Master Plan: Parks, Recreation and Open Space - This Plan analyzes park requirements for the County.
- (5) Thoroughfare Classification Plan - This document inventories and classifies major roads in the unincorporated County based on their design and traffic counts.
- (6) Wilmington Area Thoroughfare Transportation Plan - This plan establishes regional priorities for future road expansions and improvements for the greater Wilmington area.
- (7) New Hanover County Sewer Plan and Extension Policies - These plans and policies set forth the phasing of and requirements for construction of the County sewer system.
- (8) New Hanover County Zoning Ordinance - The Zoning Ordinance regulates density and types of land uses in th unincorporated County.
- (9) New Hanover County Subdivision Regulations - These regulations specify the requirements for the subdivision of land and the construction of roads.
- (10) New Hanover County Mobile Home and Travel Trailer Park Ordinance - This ordinance lists the improvements needed to develop a mobile home or trailer park.
- (11) New Hanover County Sedimentation and Erosion Control

Ordinance - Any development disturbing more than one acre of ground must comply with these grading and drainage requirements.

TECHNICAL REPORT NO. 6:  
HOW WILMINGTON STACKS UP  
(City of Wilmington)

Using Rand McNally's Places Rated Almanac, the Wilmington Metropolitan Area (defined as New Hanover County) was compared with five other urban areas in North Carolina which compete with it for business firms, workers, educators, and tourist clientele: Asheville, Charlotte-Gastonia-Rock Hill, Fayetteville, Greensboro-Winston Salem-High Point, and Raleigh-Durham. In addition, comparisons were made with four urban areas along the southeastern coast of the United States which also compete with Wilmington: Charleston, SC; Jacksonville, FL; Norfolk-Virginia Beach-Newport News, VA and Savannah, GA. These comparisons are valuable in helping the City and County recognize community strengths and weaknesses.

Some aspects of these comparisons are summarized below.

Population

Wilmington's 1970-80 growth rate of 25% was second only to Raleigh-Durham area within the State. Among the surveyed coastal areas only Charleston had a higher rate.

Housing

In 1980, nearly three quarters of Wilmington's housing stock were single family homes; other coastal metropolitan areas had a higher percentage of apartments than did Wilmington. Within cities considered in North Carolina, only the Raleigh-Durham area had a significantly lower percentage of single family homes. Among surveyed coastal urban areas, only Savannah had a higher percentage of homes built before 1940 than Wilmington.

Housing Costs

Wilmington and Savannah had the lowest rent among the surveyed coastal cities. Within North Carolina, Wilmington has rents equal to those in the Greensboro area and slightly higher than those in Asheville.

The average price of a single family home in Wilmington ranks in the middle, compared with both surveyed coastal and North Carolina metropolitan areas. Wilmington's property taxes are the lowest among the coastal cities; within the State, Fayetteville and Asheville both have slightly lower taxes.

## Economics

Income and the number of jobs available in Wilmington, about average for metropolitan areas within the State, was somewhat lower than the other coastal areas.

Percentage of Wilmington family income consumed by income and sales taxes, about average when compared with other surveyed State cities, was the largest among the surveyed coastal cities because average family incomes are smaller.

Total housing costs in Wilmington are 82% of the national average, less than any of the surveyed coastal cities except Jacksonville, Florida (79%). Within the State, Wilmington ranked just higher than Asheville (81%) and Fayetteville (75%).

Other living costs in Wilmington (such as health care) are 98% of the national average, less than the other coastal cities considered, but higher than any surveyed North Carolina city except Greensboro-Winston Salem.

## Education

Wilmington has the lowest percentage of its elementary and secondary students attending private schools (7%), and the highest pupil/teacher ratio in the public schools (14.9) of any of the coastal communities studied; dollars expended per pupil ranks second only to Jacksonville, FL. Among State cities, Wilmington's spending in these areas is about average.

A greater proportion of Wilmington's population is enrolled in its 3 schools of higher education than in any of the surveyed metropolitan areas except Raleigh-Durham.

### TECHNICAL REPORT NO. 7: HURRICANE EVACUATION, MITIGATION, AND RECOVERY PLAN (New Hanover County)

This Technical Report was produced and is presented in two parts: Phase One - An Analysis of Evacuation Capability and Vulnerability to Hurricanes in New Hanover County; and Phase Two - Hurricane Hazard Mitigation and Post-Disaster Reconstruction Plan. Phase One consists of the Planning Area's Hurricane Evacuation Plan. Primary components of this Plan include: (1) A hazard area map delineating the location of various hurricane hazard areas, such as shorefront and low-lying areas subject to flooding; (2) An analysis and assessment of the vehicle handling capacity of the expected hurricane evacuation routes and emergency shelter centers, given assumptions regarding forecasted storm events; (3) Proposed alternatives and/or mitigation policies if the evacuation routes and shelter sites prove to be inadequate; (4) An update of the operational elements of the existing Hurricane Evacuation Plan prepared by the New Hanover County Civil Preparedness Agency; and (5) Promulgation of various evacuation instructions to the public.

Phase Two consists of two main sections: (1) Storm Hazard Mitigation Plan; and (2) Post-Disaster Reconstruction Plan. Components of each of these two sections are summarized below.

#### Storm Hazard Mitigation Plan

- a. Inventory and analysis of existing land uses and structures in the hazard areas.
- b. Economic risk assessment.
- c. Hazard mitigation policies.

#### Post-Disaster Reconstruction Plan

- a. Guidelines for post-disaster reconstruction including the phasing of damage assessment, temporary moratoria, and post-disaster development standards.
- b. Establishment of damage assessment teams and standards.

TECHNICAL REPORT NO. 8:  
ENVIRONMENTAL RESOURCES AND CONSTRAINTS IN  
NEW HANOVER COUNTY  
(New Hanover County)

This Technical Report describes and discusses the environmental resources and constraints that shape the direction, type and rate of growth in the County. Five major topics of concern are covered in the report: (1) Water resources; (2) Fragile areas; (3) Hazard areas; (4) Soils; and (5) Resource potential areas.

Water resources in the Planning Area include both surface and ground waters. This Technical Report outlines the various factors which promote these water sources as important resources for the City and County; the Report also identifies potential sources of pollution for these water resources.

Fragile areas include a wide variety of wetland, estuarine and unique habitat areas. These areas, their vulnerability, and their importance to the Planning Area are identified and discussed in the Report. Hazard areas are those portions of the County in which development would pose a danger to persons and property. This Technical Report identified several types of hazard areas and describes measures which have been or should be taken to protect the public.

The Technical Report discussion on soils makes reference to the Soil Conservation Service Classification system and its utility as a development-siting tool. Discussion of resource potential areas centers on inventory and protection of prime farmland, mineral sites and public lands available for passive recreation.

TECHNICAL REPORT NO. 9:  
FUTURE LAND USE NEEDS IN NEW HANOVER COUNTY  
(New Hanover County)

This Technical Report estimates the future land use needs of the City of Wilmington and unincorporated New Hanover County for industrial, commercial and residential land use types. Industrial and regional trade growth, as measured by growth in employment, serves as the basis for projecting future industrial and commercial land use needs. Growth in population is used to forecast residential land use requirements.

General trends charted in this Report for residential land development indicate that: (1) Multi-family housing will provide an increasingly larger share of new housing construction; (2) Mobile homes will continue to comprise a significant share of the housing market; (3) Infill and rehabilitation will account for important additions to the City's housing stock; and (4) Anticipated locations of new construction include the South 17th Street Extension Area, the northeastern quadrant of the City, and the Shipyard Boulevard corridor east of Carolina Beach Road.

For industrial and commercial development, this Report indicates the following general trends: (1) Commercial development will tend to locate at major roadway intersections and along major roadways in a "stripping" fashion, particularly along Market Street, College Road, the I-40 interchanges, Eastwood Road, Oleander Drive and Carolina Beach Road; and (2) Industrial development will be concentrated in the northern and western areas of the County, particularly at the N.C. State Port, New Hanover County Airport, North 23rd Street, along the Cape Fear River, US 421 corridor, and Landmark Industrial Park.

## LAND USE PLANNING ISSUES

### INTRODUCTION

The most elementary step in the land use planning process is the identification of the primary issues facing the Planning Area over the time period to be covered by the plan. Through the identification of major planning issues, a community determines its desired future. Due to anticipated rapid growth, the primary issues facing the Planning Area appear to involve some form of **growth management**. Growth management takes a comprehensive approach to development control by using public resources, such as the location of sewer facilities, to direct growth. Utilization of growth management techniques allows the community to provide a positive direction to development as it occurs, rather than being forced into a position of reacting to such development after it occurs.

The primary sources of information used in the issues identification process for the 1986 Land Use Plan Update were the Technical Reports and the public comments received through numerous public meetings, surveys and public hearings. Figure 1 indicates how each of these information sources were used in developing the Plan.

### MAJOR LAND USE PLANNING ISSUES

Evaluation of professional and public concerns has resulted in the identification of five issues of primary concern. Several of these major issues were also major issues in the 1981 Land Use Plan Update; however, certain aspects of these issues merit increased examination in this Update. For instance, while concerns relating to **strip commercial development and incompatible land use encroachment** dominated the urban design discussion in the 1981 Update, such discussion in this document has been broadened to include **signage, landscaping and other aesthetic issues**, due to increased public concern with these issues.

The five primary land use planning issues identified for this 1986 Update are:

- **Transportation**
- **Environmental Issues**
- **Urban Design**
- **Density Control and Development Costs**
- **Economic Growth**

These issues are discussed in greater detail below.

### Transportation

A land use planning issue which has substantially increased in importance since the 1981 Land Use Plan Update is transportation. The rapid growth which has occurred in the Planning Area has resulted in increased traffic congestion. The increased traffic load, and the growth which caused it, have created the following problems. These problems will be compounded by the completion of I-40, an interstate highway currently under construction, which will link the Planning Area with heavily-populated east-central North Carolina.

- Increased Congestion - Planning Area roadways have become more congested; this higher level of use leads to traffic delays and hazards.
- Through Traffic on Neighborhood Streets - As the main roads become more difficult to drive on due to increased traffic volumes, drivers tend to seek short-cuts through existing residential neighborhoods, increasing the traffic load on neighborhood streets.
- New Development and Driveway Hazards - New development along area roadways has resulted both in additional traffic and in additional driveway intersections. These have further increased congestion and hazards.

The ultimate solution to these problems is a comprehensive program of transportation improvements requiring coordination between local, State and Federal agencies. Because such programs generally require large capital expenditures, right-of-way acquisitions, detailed design studies and public hearings, major relief of area traffic problems over the short-term is not anticipated; these are long-range solutions requiring substantial time periods to accomplish. Short-range solutions which can be more easily effected involve various relatively minor improvements to existing streets, including improved signalization and parking, a better permit system for driveway intersections, and minor street widening efforts. Regulations which would insure an improved link between permitted land uses and traffic facility improvements are also a major component of these improvement efforts.

Improvements can also be made to the public transportation services and facilities available in the Planning Area in order to provide short and long range solutions to the transportation problems. These improvements can reduce reliance on the single occupant automobile as the area's dominant transportation mode, thereby serving to reduce congestion on area roadways. Public roadway transportation in the study area includes fixed schedule bus service, van and car pools, scheduled and demand responsive services for special groups and the general public, such as taxicabs.

Long-range solutions generally involve major road construction projects. The Transportation Advisory Committee, which serves as the primary transportation planning body for the Planning Area, has adopted the following major roadway improvements, listed in order of priority.

- (1) Smith Creek Parkway/Downtown Spur - This new four-lane expressway, which would link US 421 on the west with US 17 on the east, would significantly reduce through traffic pressure on Market Street, the major east-west thoroughfare in the Planning Area.
- (2) NC 132 Widening - Four-laning this existing two lane facility between Shipyard Boulevard and US 421 will provide a four lane north-south roadway link between I-40 and rapidly-growing southern New Hanover County.

- (3) Improvements to South Front Street between the Cape Fear Memorial Bridge and Burnett Boulevard - Improvements to the major street in this area will improve the existing truck route between the State Ports Authority and highways carrying truck traffic to other parts of the State and nation.
- (4) Outer Loop - This project, designed to be developed in two major phases, is intended to improve traffic conditions in the rapidly-growing periphery areas of the City of Wilmington and the Town of Wrightsville Beach.

### Environmental Issues

Environmental issues can be categorized as dealing with water, land, or air resources. There have been few changes in the main issues regarding these environmental categories since the 1981 Land Use Plan Update.

- (1) Water resource issues - Water resource issues can be further broken down into surface water issues and groundwater issues.
  - a. Surface water - The most visible environmental issue facing the County and City is the protection of surface water quality. The County's waters have been responsible for providing recreation opportunities and an attractive living environment for residents, supporting the tourism industry, and providing a valuable source of shellfish and finfish. Growth in the County, however, has impacted the use of these waters in the following ways:
    1. Non-point pollution - Non-point pollution results from developed areas, where stormwater runoff from impervious surfaces washes wastes, sediments, oils, and other pollutants into the estuarine waters. In addition, runoff of freshwater from developed areas decreases salinity levels in the estuaries and decreases finfish and shellfish reproduction. These issues have generated considerable controversy at the State level in recent years. Although the N. C. Environmental Management Commission has recently adopted runoff regulations, this issue will likely rise again.
    2. Malfunctioning septic tanks - Poorly designed and overloaded septic tanks have contributed significantly to the pollution of the estuarine system, requiring the closing of productive shellfish beds. The recent creation of a County-wide sewer system, however, should eliminate this source of pollution.
    3. Point-source discharges - The control of point source discharges (e.g., package treatment plants for subdivisions) has recently emerged as a local

issue. Questions have also arisen the adequacy of the State's permitting and water classification system that helps determine where discharges may be permitted.

Package treatment plants are generally small versions of large municipal plants that provide primary, secondary, and tertiary sewage treatment. Package treatment plants, however, have several disadvantages. One, they are often unattended or operated by inadequately trained personnel which means that a malfunction may result in significant pollution before it can be corrected. Two, proper disposal of sludge from package plants may be a problem. Three, it is difficult for public agencies to effectively monitor numerous and dispersed package plants. Four, the knowledge that package plants may discharge at numerous locations can create negative psychological impacts on recreational and other users of the estuarine waters. It is important to note that the City of Wilmington sewage treatment plants for the Planning Area are rated by the State as Class IV, which is the highest level in the State classification system. These plants are continuously monitored by trained personnel, are designed for sufficient capacity, and discharge at only two central locations.

4. Public water access - The increased growth in the County has created a greater demand for public access to the County's estuarine system and ocean waters. This growth, however, has tended to crowd out traditional public water access points and has made public acquisitions of waterfront property for access very expensive.
- b. Ground water - The public has voiced considerable concern over the potential for pollution of groundwater in New Hanover County. Presently, nearly all residents in the unincorporated County are served by individual or community groundwater wells. With the exception of groundwater pollution in Flemington, no widespread incidents of pollution have occurred. Although several instances of industrial pollution have occurred, they have been adequately contained and present no significant threat to residences. Very few incidents of well closure from the intrusion of septic wastes have occurred.

The potential for pollution does exist, however. Presently, the County has no regulations governing the handling of toxic wastes or toxic materials, instead relying on State and Federal regulations. In addition, the problem of contamination from underground fuel

tanks may arise as old tanks corrode and begin to leak. Approximately five instances per year of underground tank leakage have been detected in the County, although no wells have yet been closed, according to the NC Department of Natural Resources and Community Development. It is important to note, as described in a previous County study, New Hanover County Aquifer Management Program, that a portion of the northern part of the County is particularly susceptible to pollution due to nearly exposed rock formations.

- (2) Land resource issues - Although many land resource issues, such as tree retention, are covered under other issue discussions, two specific land resources issues of concern are drainage and trash dumping.
  - a. Drainage - Drainage in the County has long been considered necessary primarily to allow septic tanks to function properly and to reduce flooding on the drained land. Drainage, however, of one parcel may cause increased flooding downstream. In addition, drainage may dry up valuable wetlands and release sediment and pollutants downstream. The County presently has no comprehensive drainage regulations.
  - b. Trash dumping - A number of areas in the County have been plagued by illegal landfills for construction debris and by dumping of residential trash along highways. A significant contribution to this problem is likely the absence of a publicly operated or franchised mandatory trash pick-up system in the unincorporated County. Individual homeowners, instead, are responsible for their own trash disposal.
- (3) Air Quality - Air quality in the County is generally good, compared to many other urban areas. Primarily, traffic has not yet reached the point where vehicle emissions create a widespread danger. Nuisance odors from industries, including those outside of County limits, likely will continue to be a problem.

### Urban Design

Like transportation, urban design issues have also increased in prominence since the 1981 Land Use Plan Update. Primary concerns expressed in that Update were the provision of adequate setbacks and buffers to separate more intense land uses from less intense land uses, and the creation and adoption of regulations which would serve to discourage strip commercial development along area roadways and encourage infill development in areas having existing public services.

This initial concern for functional, aesthetically-pleasing development has since been broadened to include signage, landscaping, tree protection, and other issues. This deepening of concern for aesthetics is common to many prosperous, rapidly-growing areas. Loss

of significant amounts of natural vegetation and open space to development, along with increased population density and corresponding land use compatibility problems, generally result in a desire to attempt to retain the "quality of life" the area holds for its residents.

The challenge for planners therefore involves the development of regulations and incentives which promote development types that are sensitively-designed so as to blend well with their natural and developed surroundings while simultaneously serving to direct more intense development into locations in which public infrastructure is readily available. Public infrastructure is a term referring to the public services requiring large capital investments in physical structures, facilities and equipment. Examples of infrastructures include streets, sewer systems, water systems, drainage, buildings, fire trucks and similar items.

The following urban design issues received emphasis in the 1986 Land Use Plan Update.

- Re-examination of existing signage regulations.
- Development of improved landscaping and tree protection ordinances.
- Improving interagency coordination with regard to land use compatibility.
- Development of improved buffering and site design standards to allow intermingling of marginally compatible land uses.
- Multiple and adaptive reuse of historic resources in order to promote the preservation of such resources.
- Discouragement of strip commercial development through zoning and site design standards.
- Development of detailed land use maps and standards which direct the location of appropriate development types and intensities in aesthetically-significant areas.

#### Density Control and Development Costs

The control of density and the equitable assignment of the costs associated with development are two separate but interrelated concerns which are considered herein as a single planning issue. The 1981 Land Use Plan Update examined these concerns in terms of efficient public service provision to development and the protection of the environmental quality and natural resources of the Planning Area which could be threatened by overly dense or inappropriately-located development. This Plan continues to emphasize these concerns, as discussed in the Growth Management Guide (see pp. 59 - 65.)

Dense development may have a negative impact on the estuarine system and other sectors of the coastal environment. As discussed under environmental issues, development contributes to non-point pollution runoff if stormwater is not adequately managed. Dense development may also create the need for package treatment plants which, if undersized or improperly operated, contribute significantly to pollution of the area's waters. It should be noted that 70% of the registered voters in the Planning Area, based on the IOR survey

described in Appendix A, agree with the statement that "There are too many townhouses and condominiums and other dense development along the creeks and sounds."

The efficient and economic provision of urban services, such as sewers, is hampered if dense development is allowed to occur without control throughout the Planning Area. The provision of urban services can be viewed as the opposite of rural self-sufficiency. An urban service can be classified as to whether it requires a great deal of fixed capital infrastructure, such as a sewer system, or involves primarily operating costs, such as police services. Urban services may also be classified as being either publicly provided or privately provided.

Generally speaking, the need for urban services increases with increases in density. Dense development, for instance, cannot rely on individual septic systems but must instead utilize a central sewer system. It becomes critical, therefore, to insure that the density and timing of development is coordinated with the provision of urban services. Sewer, police, fire, water, and adequate roads are some major urban services that must be available for dense development. It is generally not economically for the public to extend services such as sewer lines all over the Planning Area to serve scattered development.

In order to insure that urban services are provided economically, dense development should only be allowed as provided for in the Growth Management Guide (pp. 59 - 65). Generally, the cost of providing services for a development in an urban area is lower than it would be if the same development is allowed to occur in rural areas. Consequently, density should generally not be allowed to increase in rural areas except where such density is environmentally acceptable and the costs of providing urban services are borne by the beneficiaries of such development. Conversely, density should be encouraged in urban areas where appropriate.

Who should pay for the provision of urban services to dense development? This question has been answered by more and more communities in recent years in the following manner: Those who benefit from the required extensions of or improvements to these services should foot the bill. It is increasingly regarded as inequitable that long-time residents must contribute to the costs of growth which do not directly benefit them.

The method utilized by many communities to equitably assign urban service provision costs to new development is the impact fee. Impact fees which are designed and managed to accurately reflect true urban service costs created by new development have been supported by public opinion and the judicial system. These fees can be utilized to recover the public costs incurred from the provision of a single urban service or from the provision of an entire spectrum of urban services to new development, including streets, sewers, drainage improvements, police and fire protection, schools, and other public services. By equitably assigning these costs through impact fees, the community insures that new development "pays its own way."

It is important to note that dense development, if properly controlled and its costs properly assigned, is a valuable form of development. Dense development can allow for efficient provision of urban services if kept clustered around an existing urban area. Through impact fees, dense development can be equitably accommodated in areas which could previously support only non-urban development, thus allowing a more efficient utilization of developable land. In addition, dense development in one area may allow for retention of open space and for environmental protection in more sensitive areas.

### Economic Growth

The economic growth of the Planning Area continues to be a major planning issue, with the 1986 Land Use Plan Update serving to refine and advance the programs and policies established in the 1981 Update. Most local indicators of economic growth provide a positive outlook for the area through the planning horizon.

The completion of I-40 in the early 1990's will provide a significant boost to local industries and to the State Ports Authority, since transportation of raw materials and finished products will be improved. Planned expansion of the New Hanover County Airport will continue to diversify the area transportation facilities. Recent and anticipated location of new industries and commercial enterprises in the area also add to the diversification of the local economic base, an important means by which the area can be insulated from periodic recessions. Efforts to improve tourism in the Planning Area, ranging from improvements to local shorefront access facilities to promotion of the local historic resources to major cultural and recreational festivals, have been increasingly successful in recent years.

In order to encourage the continuance of these positive economic trends, regulations and incentives must be developed to mitigate the negative and accentuate the positive aspects of economic growth. There is widespread public desire for industries and commercial enterprises which are "clean", provide higher paying and higher skilled job opportunities, and which complement the area's natural resources and existing land uses.

## POLICIES

### INTRODUCTION

The following sections of the 1986 Land Use Plan Update present policies and implementation procedures to guide the growth and development of the County and City for the next five to ten years. These policies are official guidelines set down for present and future decision-making. They are broad in scope to allow the degree of flexibility necessary to adequately accommodate changing conditions in the rapidly growing planning area. Implementation procedures are specific directives as to how the policies are to be enacted and achieved.

The following groups of policies are established:

- (1) Resource Protection Policies
- (2) Resource Production and Management Policies
- (3) Economic and Community Development Policies
- (4) Public Participation Policies
- (5) Storm Hazard Mitigation, Evacuation, and Recovery Policies

The discussion on each group of policies is divided into two sections. The first section examines the policies established in the 1981 Land Use Plan Update and their adequacy to meet present and future conditions. The second section establishes policies and implementation procedures for the 1986 Land Use Plan Update.

## RESOURCE PROTECTION

### INTRODUCTION

The natural resources of the Planning Area have certainly been key determinants in shaping the pattern of its growth. These resources have simultaneously stimulated the growth of the economy and provided an attractive living and recreational environment while constraining growth due to various environmental limitations.

### PAST POLICIES AND PRESENT ISSUES

The public participation efforts involved in the preparation of this Land Use Plan Update have re-established several major resource protection issues that were addressed in the 1981 Land Use Plan Update. These include:

- Protection of the estuarine Areas of Environmental Concerns (AEC's) from pollution and intense development.
- Minimization of potential endangerment to shoreline development caused by storms and beach erosion.
- Analysis of man-made threats, (e.g. hazardous wastes) to the community's resources, particularly groundwater.

As evidenced by Appendix B: Implementation Scorecard, the City and County have been effective in establishing measures to implement the policies of the 1981 Land Use Plan Update. The rapid growth of the Planning Area, however, has continued to make these and other issues highly visible to local residents. Concern over estuarine pollution and related shellfish bed closings was a major factor leading to the development of a County-wide sewer system to eliminate septic tank pollution. Package treatment plant discharges into the County's waters have recently emerged as a major issue. The concern expressed for these and other issues is considered more fully in Appendix A: Public Participation.

### RESOURCE PROTECTION POLICIES

#### 1.0 GENERAL RESOURCE PROTECTION POLICY

- 1.0(1) PRESERVE, PROTECT, AND AUGMENT THE AREA'S IMPORTANT NATURAL RESOURCES.

#### 1.1 NATURAL RESOURCE CONSTRAINTS ON DEVELOPMENT POLICIES

- 1.1(1) DEVELOPMENT ACTIVITIES IN OCEAN ERODIBLE AREAS, HIGH HAZARD FLOOD AREAS, AND INLET HAZARD AREAS SHALL BE CAREFULLY CONTROLLED. IF DEVELOPMENT MUST OCCUR IN THESE AREAS, THE PROPER LOCATION AND DESIGN OF SHORELINE STRUCTURES AND THE PRESERVATION OF NATURAL PROTECTIVE FEATURES SHALL BE REQUIRED.

1.1(2) BARRIER ISLANDS WHICH HAVE THE FOLLOWING FIVE CHARACTERISTICS SHALL BE DEVELOPED ONLY FOR WATER DEPENDENT USES SUCH AS PLEASURE BOAT DOCKS AND LANDINGS; THEY SHALL NOT BE DEVELOPED FOR RESIDENTIAL USE:

- a. The land is a barrier island or part of a barrier island with a density equal to or less than one residential unit per five acres.
- b. The barrier island area has been assigned the most severe rank with regard to vulnerability to hurricane forces.
- c. The barrier island area is not connected to the mainland by a permanent network of roads and bridges that would allow safe and timely evacuation by land rather than by boat.
- d. The barrier island area does not qualify for the National Flood Insurance Program as administered by the Federal Emergency Management Agency.
- e. The barrier island area is classified as Conservation in the Land Use Plan.

1.1(3) DEVELOPMENT ACTIVITIES WITHIN THE 100 YEAR FLOODPLAIN SHALL BE CAREFULLY CONTROLLED; IF DEVELOPMENT MUST OCCUR, LOW-INTENSITY USES SUCH AS OPEN SPACE, RECREATION, AND AGRICULTURE SHALL BE PREFERRED.

1.1(4) SHORELINE EROSION CONTROL AND CHANNEL MAINTENANCE PROJECTS SHALL BE SUPPORTED ONLY WHERE:

- a. No significant adverse impacts will occur on shoreline dynamics;
- b. Significant economic or recreational benefits will occur to planning area residents; and
- c. Public shoreline will be the primary beneficiary.

1.1(5) DEVELOPMENT ON CLASS IV SOILS AS DEFINED IN THE 1981 TECHNICAL REPORT, CLASSIFICATION OF SOILS IN NEW HANOVER COUNTY FOR SEPTIC TANK SUITABILITY, SHALL BE DISCOURAGED.

#### Implementation Procedures

1. State standards for development in ocean hazard areas shall continue to receive support.
2. The City and County shall continue to support the State's effort to include Masonboro Island in the Estuarine Sanctuary Program.
3. The development ordinances of the City and County shall be updated to reflect strict control of urban development within the 100 year floodplain.
4. All land areas falling within the 100 year floodplain will be designated Conservation on the Land Classification Map.

5. The New Hanover County Port, Waterway, and Beach Commission shall recommend for local funding only those shoreline erosion control projects meeting the standards set forth in Policy 1.1(4) above.
6. Planning maps regarding general soils and septic tank suitability will be maintained for public use at the County Planning Department.
7. The City and County staffs shall maintain active working relationships with the USDA Soil Conservation Service, the Lower Cape Fear Soil and Water Conservation District, and the N.C. Department of Natural Resources and Community Development.
8. The City and County shall examine the need for special construction requirements in areas containing highly organic soils.

## 1.2 PROTECTION OF CAMA-DEFINED AREAS OF ENVIRONMENTAL CONCERN

- 1.2(1) COASTAL WETLANDS, ESTUARINE WATERS, ESTUARINE SHORELINES, AND PUBLIC TRUST WATERS SHALL BE PROHIBITED FROM USE BY ANY DEVELOPMENT ACTIVITY WHICH WOULD RESULT IN SIGNIFICANT DAMAGE OR ALTERATION TO THE NATURAL FUNCTION OF THESE AREAS.
- 1.2(2) DEVELOPMENT OF ESTUARINE SYSTEM ISLANDS SHALL BE PERMITTED ONLY IF PROPER MEASURES ARE TAKEN FOR HURRICANE EVACUATION, UTILITIES PROVISION, ACCESS ON AND OFF THE ISLAND, POLLUTION CONTROL, AND OTHER DESIGN CONSIDERATIONS THAT WILL INSURE COMPATIBILITY OF THE DEVELOPMENT WITH THE ESTUARINE SYSTEMS.
- 1.2(3) DRAINAGE FROM DEVELOPMENT, AGRICULTURE, AND FORESTRY ACTIVITIES SHALL BE OF A QUALITY AND QUANTITY AS NEAR TO NATURAL CONDITIONS AS POSSIBLE.
- 1.2(4) THE PHASED DEVELOPMENT AND EXTENSION OF THE COUNTY SEWER SYSTEMS SHALL BE CONTINUED AND ENCOURAGED AS THE MEANS OF ELIMINATING POLLUTION FROM MALFUNCTIONING OR INADEQUATE SEPTIC SYSTEMS AND PACKAGE TREATMENT PLANTS.
- 1.2(5) IN ORDER TO PROTECT ESTUARINE WATER QUALITY, ONLY CLASS IV SEWAGE TREATMENT PLANTS SHALL BE ALLOWED TO DISCHARGE INTO PUBLIC SURFACE WATERS. THE STATE OF NORTH CAROLINA DETERMINES IF A SEWAGE TREATMENT PLANT IS CLASS IV, THE HIGHEST CLASS POSSIBLE.
- 1.2(6) THE DEVELOPMENT OF MARINAS SHALL BE SUPPORTED AS A MEANS OF PROVIDING PUBLIC WATER ACCESS TO THE EXTENT THAT THEIR DEVELOPMENT SHALL NOT ADVERSELY IMPACT ESTUARINE RESOURCES OR PUBLIC TRUST WATER.
- 1.2(7) FLOATING HOME DEVELOPMENT SHALL BE DISCOURAGED.

## Implementation Procedures

1. State standards for development within estuarine systems shall continue to receive support.
2. Future City and County plans, public works actions and review procedures relating to drainage shall include provisions to prohibit increases in the flow of runoff and pollutant discharge into receiving waters.
3. The County's septic tank regulations shall continue to be strictly enforced.
4. More emphasis shall be placed on drainage control for the protection of those natural resources in the public trust that are of high economic and ecologic value to the Planning Area. These resources include finfish and shellfish estuarine habitat and groundwater.
5. A single comprehensive set of drainage regulations shall be developed that specifically states objectives and design criteria that can be applied equally to all types of development while requiring adequate maintenance. The existing County Sedimentation and Erosion Control Ordinance would be an excellent ordinance to modify for this purpose.
6. A technical committee, composed of government and private interest representatives, should be created to assist in developing the drainage regulations.
7. A Technical Specifications Manual shall be developed by the County staff that would provide detailed information on materials and structure designs.
8. Plans for any needed modification to, as well as maintenance of, the City's or the County's existing drainage system shall be developed.
9. All coastal wetlands, estuarine waters, estuarine shorelines, and public trust waters shall be designated Conservation on the Land Classification Map.
10. Appropriate ordinance changes shall be made to phase out or eliminate the use of private package treatment plants that do not meet Class IV Standards.
11. A study shall be made of the design standards and ordinance changes necessary for the development of estuarine system islands.
12. The N. C. Division of Environmental Management shall be strongly encouraged to require the connection of existing package treatment plans to available public treatment systems, when discharge permits are issued or renewed.
13. State regulations of marina development shall be supported. Floating home development shall be discouraged through continued support of County floating home regulations.

1.3 POTABLE WATER SUPPLY POLICY

- 1.3(1) SOURCES OF POTABLE SURFACE AND GROUNDWATER FOR THE CITY AND COUNTY SHALL BE CONSERVED AND PROTECTED TO THE MAXIMUM EXTENT POSSIBLE.

Implementation Procedures

1. The City and County shall jointly prepare a Potable Water Plan. This Plan will examine the quality and quantity of present water supplies and examine possible alternatives that may be more efficient and effective, or that may be used if the present systems were to become inadequate or polluted. This effort becomes increasingly important as the County becomes more urbanized and as the City's present water system nears capacity.
2. Controls shall be developed to minimize significant artificial land drainage and the amount of impervious surface which could affect aquifer recharge.
3. The City and County ordinances shall be amended as necessary to regulate inappropriate industries or commercial establishments involved with the use, production or handling of toxic or hazardous materials and other potential pollutants in the County's primary or secondary aquifer recharge area, as documented in the County report New Hanover County Aquifer Management Program.
4. The use of on-site sewage treatment and sludge disposal methods will continue to be closely examined for their impacts on groundwater.
5. The City and County shall develop regulations, incentives, or other measures which encourage potable water conservation.

1.4 POLICIES IN THE CONSIDERATION OF OTHER FRAGILE OR HAZARDOUS AREAS.

- 1.4(1) PLANS FOR THE SAFE TRANSPORTATION OF HAZARDOUS MATERIALS, FOR THE PREVENTION AND CLEAN-UP OF SPILLS OF TOXIC MATERIALS, AND FOR THE EVACUATION OF AREA RESIDENTS IN RESPONSE TO NATURAL OR MAN-MADE HAZARDOUS EVENTS SHALL CONTINUE TO BE SUPPORTED.
- 1.4(2) THE SITING OF INDUSTRIES, INCLUDING ENERGY FACILITIES, SHALL BE CAREFULLY REVIEWED FOR THE PROTECTION OF PLANNING AREA RESIDENTS AND NATURAL RESOURCES.
- 1.4(3) THE COUNTY'S INNOVATIVE INCINERATOR AND LANDFILL SYSTEM SHALL CONTINUE TO BE SUPPORTED AND IMPROVED.

1.4(4) THE COUNTY SHALL ENSURE THE COMPATIBILITY OF SURROUNDING LAND USES WITH THE NEW HANOVER COUNTY AIRPORT.

1.4(5) THE COUNTY SHALL STRIVE TO REDUCE ILLEGAL TRASH DUMPING AND ILLEGAL LANDFILLS.

Implementation Procedures

1. The County shall support the recently created Department of Emergency Services in its role of planning for the transportation and handling of hazardous and toxic materials.
2. The large number of vacant acres of industrially zoned land in the City and County will be examined to explore the possibility of down-zoning portions to residential or commercial use, particularly in environmentally sensitive areas or near residential areas.
3. The City and County shall examine the impact of the present expansion of the New Hanover County Airport in order to determine if adjustments are required to zoning maps or other ordinances; new residential or other noise-sensitive uses shall be restricted in areas affected by existing or proposed flight pattern noise contours.
4. The City and County shall analyze the potential danger of the Sunny Point Military Ocean Terminal munitions shipping in the Cape Fear River.
5. The City and County shall cooperate fully with any efforts on the part of officials of the Brunswick County Nuclear Generating Facility or of its various regulating agencies which serve to reduce the potential for or the negative effects of any accident at the facility.
6. The County shall consider both adopting a mandatory County-wide garbage collection policy to reduce unauthorized dumping and roadside litter, and developing regulations for demolition debris landfills.

1.5 HISTORIC AND CULTURAL RESOURCE POLICIES

1.5(1) THE CITY AND COUNTY SHALL STRIVE TO PROTECT IMPORTANT HISTORIC AND CULTURAL RESOURCES.

Implementation Procedures

1. The City shall continue to implement its Historic District and Historic District Overlay zoning and associated regulations.
2. The County shall continue to protect its cultural resources through the Conservation Overlay District.
3. The County shall complete its inventory of historic architectural resources and develop means for their protection.

## RESOURCE PRODUCTION AND MANAGEMENT

### INTRODUCTION

Resource production and management is concerned with the wise use of the natural resources of the Planning Area. These resources form the basis for much of the area's economic potential and quality of life. Although utilization of these resources is essential to the continued prosperity of the Planning Area, these resources must be effectively managed in order to ensure their continued existence and to minimize any negative impacts.

### PAST POLICIES AND PRESENT ISSUES

The most important resource production and management issue identified in the 1981 Land Use Plan Update involved the loss of farmlands, forests and other open areas to more intensive development. The 1981 Update noted that New Hanover County had become the most urbanized county in North Carolina, and that farming, as a percentage of the County's total workforce and overall economy, had declined considerably in recent years. There was an attempt to reverse or slow these trends through policies and implementation actions designed to encourage retention of land in rural uses. Despite these efforts, these trends have continued throughout the Planning Area since 1981.

As discussed in the Land Use Planning Issues section of this Update (pp 18 - 28), four of the most important current planning issues for the New Hanover - Wilmington area are: (1) Urban design; (2) Economic growth; (3) Density control and development costs; and (4) Environmental issues. Each of these four primary issues directly relate to rural resources. **Urban design** is necessary to insure the continued compatibility between differing land uses as rural areas are converted to urban uses. The **economic growth** of the Planning Area is highly dependent on proper management of the area's natural resources. **Density control and development costs** relate to responsible conversion of rural areas to urban uses. **Environmental issues** include concerns about the continued availability of aesthetically-important and ecologically significant open spaces and other natural resources.

### RESOURCE PRODUCTION AND MANAGEMENT POLICIES AND IMPLEMENTATION PROCEDURES

#### 2.0 GENERAL RESOURCE PRODUCTION AND MANAGEMENT POLICIES

- 2.0(1) SHORT-SIGHTED OR PREMATURE COMMITMENTS OF THE PLANNING AREA'S NATURAL RESOURCES SHALL BE AVOIDED.
- 2.0(2) EFFORTS BY OTHER GOVERNMENTAL AND PRIVATE AGENCIES TO WISELY MANAGE THE NATURAL RESOURCES OF THE AREA AND THE REGION SHALL BE SUPPORTED.

### Implementation Procedures

1. The City and County shall consider impacts on local and regional natural resources in all development decisions.
2. Improved cooperation and coordination with the other public and private agencies in the County and the region shall be encouraged.

#### 2.1 AGRICULTURAL AND FORESTRY RESOURCES POLICY

- 2.1(1) PREMATURE CONVERSION OF THE PLANNING AREA'S REMAINING FARMLANDS AND COMMERCIAL WOODLANDS INTO MORE INTENSIVE USES SHALL BE DISCOURAGED.

### Implementation Procedures

1. The Growth Management Guide and other growth management practices, controls and incentives established in this document shall be utilized to insure the orderly conversion of agricultural and forestry lands into other uses.
2. All available tax incentives which encourage continuance of existing agricultural and forestry operations shall be identified and publicized in an effort to discourage premature conversion of these lands into other uses.

#### 2.2 MINERAL RESOURCES POLICY

- 2.2(1) DEVELOPMENT OF THE PLANNING AREA'S MINERAL RESOURCES, INCLUDING OFF-SHORE OIL EXPLORATION AND PRODUCTION, SHALL BE ENCOURAGED SO LONG AS SUCH DEVELOPMENT OCCURS IN A MANNER WHICH IS COMPATIBLE WITH ENVIRONMENTAL CONSTRAINTS AND OTHER LAND USES.

### Implementation Procedures

1. Prime mineral resource sites away from urbanizing areas as identified in Technical Report No. 3, Environmental Analysis, April 1976 by the Wilmington-New Hanover Planning Department, will be offered protection in the land classification map, and in the County zoning map.
2. The County Planning Department Staff will offer, in its recommendations to the Planning Board, information regarding the location of prime mineral resource sites in relation to proposed developments, whenever appropriate.
3. The City and County will maintain close coordination with the N.C. Division of Land Resources and Outer Continental Shelf Task Force, as applicable, with regard to the siting and operation of new or expanded mineral extraction facilities.

4. The City and County shall support State of North Carolina policy regarding the siting of environmentally responsible off-shore oil exploration facilities so long as such policy favors the siting of these facilities eastward of the 200 Meter Isobath Region, the most ecologically-productive zone of the coastal environment, extending from the shoreline to the point at which the Continental Shelf sharply drops off.

### 2.3 RECREATION AND OPEN SPACE POLICIES

- 2.3(1) PRESERVATION OF UNIQUE NATURAL AREAS SHALL BE ENCOURAGED IN ORDER TO PROVIDE AREA RESIDENTS AND VISITORS WITH A WIDE VARIETY OF RECREATIONAL OPPORTUNITIES.
- 2.3(2) ADEQUATE PUBLIC RECREATIONAL FACILITIES AND OPEN SPACE SHALL BE PROVIDED AND MAINTAINED IN ACCORDANCE WITH PUBLIC DEMAND AND EXPECTED POPULATION GROWTH.
- 2.3(3) EXISTING PUBLIC SHOREFRONT ACCESS SHALL BE PRESERVED AND NEW SHOREFRONT ACCESS AREAS SHALL BE ACQUIRED AND DEVELOPED.
- 2.3(4) OUTSIDE FUNDING SOURCES FOR RECREATIONAL FACILITY DEVELOPMENT SHALL BE PURSUED.

#### Implementation Procedures

1. The City and County shall strive to attain and maintain the recreational standards established by the N.C. Division of Parks and Recreation, consistent with public need and demand.
2. The City and County shall support those actions which preserve unique natural areas for the educational and recreational enjoyment of Planning Area residents and visitors.
3. City and County shorefront access plans and programs, such as the Public Water Access Plan for New Hanover County, the Riverfront Plan, and the Riverwalk Improvement Plan, shall be implemented.
4. The City and County shall support those measures which serve to encourage private provision of both public and private recreational facilities, particularly neighborhood parks. The City and County staffs are directed to continue to prepare for consideration ordinances and resolutions which will encourage creativity on the part of private developers and entrepreneurs in providing recreational opportunities; recreation impact fees and park dedication requirements shall be included in such staff efforts.

5. Flood hazard areas shall be utilized whenever feasible and appropriate in the provision of parks and open space.

#### 2.4 FISHERIES RESOURCES POLICY

- 2.4(1) THE CONTINUED PRODUCTIVITY OF COMMERCIAL AND RECREATIONAL FISHERIES SHALL BE FOSTERED THROUGH THE PROTECTION OF THE UNIQUE COASTAL ECOSYSTEMS, INCLUDING PRIMARY NURSERY AREAS, UPON WHICH THEY DEPEND.

##### Implementation Procedures

1. Studies designed to evaluate and recommend corrective measures to the shellfish pollution problem and to improve management and production of all fisheries resources shall be supported by the City and County.
2. Opportunities to improve commercial and recreational fishing through the construction of off-shore artificial reefs shall be supported by the City and the County so long as such practices are in keeping with sound environmental practices.

#### 2.5 OFF-ROAD VEHICLE POLICY

- 2.5(1) EFFORTS TO CONTROL OFF-ROAD VEHICLE USE IN THE ECOLOGICALLY SENSITIVE OCEAN AND ESTUARINE SHORELINE AREAS SHALL CONTINUE TO RECEIVE SUPPORT FROM COUNTY GOVERNMENT.

1. The New Hanover County Sheriff's Department shall continue to enforce the County's off-road vehicle regulations and to provide law enforcement services to the County area between the Carolina Beach Inlet and the northern corporate limits of the Town of Carolina Beach and the Fort Fisher area.
2. Off-road vehicle use on Masonboro Island shall be prohibited until an Estuarine Sanctuary Management Plan for the Island can be produced by State agencies.

#### 2.6 ENERGY CONSERVATION POLICY

- 2.6(1) INNOVATIVE AND EFFECTIVE MEANS OF IMPROVING ENERGY CONSERVATION TECHNIQUES AND PRACTICES SHALL BE ENCOURAGED.

##### Implementation Procedures

1. The City and County shall support efforts to encourage developers to utilize energy conservation measures in site design and material selection.

2. Every effort will be made to see that sufficient opportunities are provided for the location of steam users proximate to proposed steam generating solid waste incineration facilities.
3. New and retrofitted City and County facilities shall be designed to encourage energy conservation.
4. The City and County shall explore opportunities offered by such agencies as the N.C. Alternative Energy Corporation to conserve energy and to support the use of renewable energy.

## ECONOMIC AND COMMUNITY DEVELOPMENT

### INTRODUCTION

The concept of economic and community development encompasses a wide variety of public and private activities. Generally speaking, however, economic and community development actions can be regarded as those actions which serve to promote the economic, cultural, and physical development of the community in accordance with an established set of goals or objectives.

### PAST POLICIES AND PRESENT ISSUES

Three primary issues were identified in the Economic and Community Development section of the 1981 Land Use Plan Update:

- The need for continued economic growth through specific industrial recruitment and diversification efforts.
- The need to provide for efficient location of development relative to existing or planned public services.
- The need to avoid encroachment problems due to the location of incompatible or inadequately buffered land uses.

As evidenced by the Implementation Scorecard (Appendix B), the City and County enjoyed considerable success during the 1981-1986 planning period in directing work efforts toward these issues. However, an examination of public perceptions regarding these problems indicates that economic growth, efficient public service provision, and land use incompatibility are still regarded as being issues of considerable importance.

One major current economic and community development issue which received relatively little attention in the 1981 Land Use Plan Update was transportation. Rapid growth since 1981 has significantly increased traffic volumes on many of the planning area roadways, creating traffic problems ranging from through traffic on neighborhood streets to congestion on major area highways.

A final current issue which has increased in importance since the last Land Use Plan Update involves the aesthetic aspects of local urban design efforts. As the Planning Area grows, there is increased attention being paid to primarily aesthetic issues, such as tree protection, landscaping, and signage. This attention results from the loss of existing scenic or otherwise aesthetically important areas to development and from the successes achieved in protecting historical and natural resources, particularly the City of Wilmington's Historic District and the County's Conservation Overlay District preservation efforts. Increased development pressure combined with increased community desire for aesthetically-pleasing types of development have created an emphasis on establishing new urban design standards in the following policies.

ECONOMIC AND COMMUNITY DEVELOPMENT POLICIES AND IMPLEMENTATION PROCEDURES

3.0 GENERAL ECONOMIC AND COMMUNITY DEVELOPMENT POLICIES

- 3.0(1) EXISTING AND PROGRAMMED PUBLIC SERVICES SHALL BE COORDINATED WITH FUTURE LAND USE INTENSITIES IN ACCORDANCE WITH THE GROWTH MANAGEMENT GUIDE.
- 3.0(2) USE OF INNOVATIVE AND FLEXIBLE PLANNING AND ENGINEERING PRACTICES AND URBAN DESIGN STANDARDS SHALL BE ENCOURAGED.
- 3.0(3) A SUFFICIENT VARIETY AND AMOUNT OF FUTURE LAND USE TYPES SHALL BE PROVIDED IN ORDER TO ACCOMMODATE PUBLIC DEMAND.
- 3.0(4) COMPATIBILITY BETWEEN FUTURE AND EXISTING LAND USES SHALL BE ENCOURAGED.
- 3.0(5) THE COSTS ASSOCIATED WITH THE AREA'S RAPID GROWTH SHALL BE DISTRIBUTED EQUITABLY, TO THE MAXIMUM EXTENT PRACTICAL.
- 3.0(6) IMPROVED COORDINATION BETWEEN CITY AND COUNTY PLANNING AND DEVELOPMENT EFFORTS, AND THOSE OF OTHER AREA LOCAL GOVERNMENTS, SHALL BE ENCOURAGED IN ORDER TO PROMOTE UNIFORMITY AND CONSISTENCY AND TO REDUCE CONFLICTS.

Implementation Procedures

- 1. The Growth Management Guide shall be implemented through the development of appropriate capital improvement programs, land development regulations, and tax incentives.
- 2. Land development regulations and policies which encourage innovative, flexible and/or efficient development practices shall be supported.
- 3. The Growth Management Guide, zoning and other regulations shall be periodically examined to ensure that sufficient variety and amounts of developable land are available in order to accommodate public demand.
- 4. The County and City shall attempt to develop means by which the cost of development (e.g., service provision and/or extension) shall be borne by the developer based upon the impact each development will have on the type and extent of existing or planned public infrastructure (e.g. sewer).
- 5. Improved coordination with the development efforts of other local governments in New Hanover County (Carolina, Kure and Wrightsville Beaches) and in surrounding counties shall be encouraged.

### 3.1 RESIDENTIAL DEVELOPMENT POLICIES

- 3.1(1) NEW DEVELOPMENT STANDARDS AND INCENTIVES SHALL BE ENCOURAGED TO INSURE THE CONTINUED SUPPLY OF A WIDE RANGE AND SUFFICIENT SUPPLY OF AFFORDABLE RESIDENTIAL HOUSING TYPES.
- 3.1(2) HOUSING OPPORTUNITIES SHALL BE IMPROVED FOR THE FOLLOWING SELECTED GROUPS: THE ELDERLY, THE HANDICAPPED, LARGE HOUSEHOLDS HEADED BY A SINGLE PARENT, AND THE AREA'S HOMELESS POPULATION.
- 3.1(3) ENCROACHMENT UPON RESIDENTIAL NEIGHBORHOODS BY MORE INTENSE LAND USES SHALL BE AVOIDED.
- 3.1(4) RESIDENTIAL CARE FACILITY PROPOSALS SHALL BE ENCOURAGED.
- 3.1(5) EFFORTS WILL BE MADE TO REDUCE THROUGH TRAFFIC IN RESIDENTIAL AREAS.
- 3.1(6) RESTORATION OF STRUCTURES AND NEIGHBORHOODS OF HISTORIC SIGNIFICANCE SHALL BE ENCOURAGED.
- 3.1(7) EFFORTS BY INDIVIDUALS AND NEIGHBORHOODS TO PROMOTE "EXCLUSIONARY ZONING" SHALL BE DISCOURAGED.
- 3.1(8) NEIGHBORHOOD-LEVEL PLANNING SHALL BE UTILIZED, WHERE FEASIBLE AND APPROPRIATE, IN THE PRODUCTION OF LAND USE PLANS, PROGRAMS AND STRATEGIES.

#### Implementation Procedures

1. The City and County staffs are directed to prepare for consideration new residential development standards, regulations and incentives which increase flexibility in residential design, encourage infill development in currently-served areas, and increase the variety, affordability and supply of housing opportunities.
2. The City and County recognize a special responsibility with regard to certain segments of the population which are being excluded from area housing opportunities. Programs and actions, including those of other agencies, which improve the housing opportunities for the elderly, the handicapped, the homeless, and large households headed by a single parent shall be supported.
3. The County staff is directed to prepare for consideration a minimum housing code which serves to increase the safety and aesthetics of deteriorated structures throughout the County while maintaining an adequate supply of affordable housing opportunities for low income citizens.

4. The City and County shall consider all significant encroachment effects of development decisions on adjacent or nearby residential neighborhoods.
5. Residential care facilities shall be supported when applicants provide evidence that the residential integrity of the affected neighborhood will not be threatened.
6. Improvements to the local transportation system which minimize through traffic in neighborhoods shall be supported.
7. Historically significant structures and neighborhoods shall continue to receive regulatory protection; new standards, regulations and incentives which promote the preservation and maintenance of the area's historic resources shall be supported so as to preserve this tangible, aesthetically significant link to the Planning Area's past.
8. The City and County staffs are encouraged to utilize neighborhood planning practices.

### 3.2 COMMERCIAL DEVELOPMENT POLICIES <sup>1</sup>

- 3.2(1) COMMERCIAL DEVELOPMENT PROJECTS SHALL BE ENCOURAGED TO LOCATE IN AREAS WHICH ALREADY CONTAIN THE PUBLIC SERVICES, INCLUDING TRANSPORTATION, REQUIRED BY THE PROJECTS, OR IN AREAS IN WHICH THE NEEDED SERVICES ARE READILY AVAILABLE.
- 3.2(2) INNER-CITY COMMERCIAL DEVELOPMENT SHALL BE ENCOURAGED.
- 3.2(3) UNCONTROLLED STRIP COMMERCIAL DEVELOPMENT SHALL BE AVOIDED.
- 3.2(4) REDEVELOPMENT OF DOWNTOWN WILMINGTON SHALL BE ENCOURAGED.
- 3.2(5) THE CITY AND COUNTY SHALL PROVIDE SUPPORT FOR THE CREATION AND ESTABLISHMENT OF SMALL BUSINESSES.

#### Implementation Procedures

1. The City and County staffs are directed to prepare for consideration development standards, regulations, and incentives which encourage the location of commercial facilities in areas in which needed public services can be efficiently provided, and which promote the location of

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<sup>1</sup>Includes Office and Institutional Development

commercial facilities at appropriate roadway intersections and along roadways that can handle the traffic and insure compatibility with existing land uses. Within the City, neighborhood commercial facilities should be located on roadways classified, at minimum, as minor arterials; community commercial facilities should be located on roadways classified, at minimum, as major arterials; and regional commercial facilities should be located on roadways classified, at minimum, as highways.

2. The City shall produce market analyses, zoning incentives, site location studies and assessments intended to encourage the location of commercial development in the inner city areas.
3. The City and County staffs are directed to prepare for consideration driveway standards, zoning regulations, action plans, and other measures which discourage the establishment of strip commercial development.
4. The City shall promote redevelopment efforts in Downtown Wilmington which reflect the historic and cultural traditions of the area and which serve to efficiently utilize existing public services in the area.
5. The City and County shall continue to support efforts to promote the establishment of small businesses through the Small Business Incubator Program and other similar activities.

### 3.3 INDUSTRIAL DEVELOPMENT POLICIES

- 3.3(1) THE CITY AND COUNTY SHALL ENCOURAGE DIVERSIFICATION OF THE AREA'S ECONOMIC BASE.
- 3.3(2) THE CITY AND COUNTY SHALL FOCUS ON ATTRACTING CERTAIN INDUSTRIES WHICH CAN BE DEVELOPED IN A MANNER CONSISTENT WITH THE LOCAL PUBLIC SERVICE SUPPLY, THE LOCAL EMPLOYMENT BASE, AND THE LOCAL NATURAL RESOURCES.
- 3.3(3) THE CITY AND COUNTY SHALL PRESERVE, PROTECT, AND AUGMENT WHEREVER POSSIBLE, THE COMPLEMENTARY RELATIONSHIPS EXISTING BETWEEN THE AREA'S VARIOUS INDUSTRIES, AND MINIMIZE POTENTIAL CONFLICTS BETWEEN INDUSTRIES.
- 3.3(4) THE CITY AND COUNTY SHALL ENCOURAGE LAND USE COMPATIBILITY BETWEEN THE INDUSTRIAL SECTOR AND THE RESIDENTIAL AND COMMERCIAL SECTORS.
- 3.3(5) THE CITY AND COUNTY SHALL PROMOTE AND ATTRACT INDUSTRIES WHICH ENCOURAGE THE UPWARD MOBILITY OF LOW AND MODERATE INCOME PERSONS.
- 3.3(6) BECAUSE OF ITS RELATIONSHIP WITH THE NATURAL AND

HISTORIC RESOURCES OF THE AREA, THE TOURIST INDUSTRY SHALL RECEIVE SPECIAL SUPPORT FROM THE CITY AND COUNTY.

3.3(7) THE CITY AND COUNTY SHALL CONTINUE TO SUPPORT THE VALUABLE CONTRIBUTIONS TO THE PLANNING AREA'S ECONOMY BY THE STATE PORTS AUTHORITY.

3.3(8) ON-SHORE REFINERY DEVELOPMENT SHALL BE SUPPORTED ONLY IF POTENTIAL IMPACTS TO THE AREA'S ENVIRONMENTAL RESOURCES ARE MINIMIZED.

Implementation Procedures

1. The City and County shall implement programs designed to promote and attract new industries which tend to diversify the Planning Area's economy and which provide a good match with the area's public services, employment base and natural resource potentials and constraints. Substantial cooperation with local industrial recruitment organizations, such as the Greater Wilmington Chamber of Commerce, is a considered essential to the success of this implementation procedure.
2. Land use regulations, promotional campaigns, public service provision and other measures which serve to increase compatibility between industries in the Planning Area and between these industries and other land uses shall be supported.
3. Decisions regarding the location of industrial land uses shall take into account the cost and extent of the public services required by such uses.
4. The City and County shall implement industrial recruitment programs designed to promote and attract new industries which encourage the upward mobility of low and moderate income residents through on-the-job training programs, positive salary structures, and transferability of job skills.
5. The City and County staffs are directed to make special efforts in the promotion of the area's tourist industry through information sharing, technical support, site location studies and assessments and other means, due to the public benefits which accrue from tourism activities which complement the Planning Area's natural, cultural and historic resources. The City and County shall also continue to support the New Hanover Convention and Visitors Bureau through such actions as the commitment of 25% of the room occupancy tax for the promotion of tourism.
6. The City and County shall continue to support the continued development of the N.C. State Ports Authority, including the Authority's efforts to maintain all aspects of its international trade status.

### 3.4 TRANSPORTATION POLICIES

- 3.4(1) LEVEL-OF-SERVICE STANDARDS AND PROGRAMS FOR AREA ROADWAYS SHALL BE ESTABLISHED.
- 3.4(2) TRAFFIC CIRCULATION IMPROVEMENT PRIORITIES SHALL BE ESTABLISHED TO PROVIDE FOR THE TIMELY ALLOCATION OF RESOURCES IN MEETING THE TRANSPORTATION NEEDS OF THE AREA.
- 3.4(3) THE CITY AND COUNTY SHALL SUPPORT THE EFFORTS OF OTHER LOCAL, STATE, AND FEDERAL AGENCIES THAT IMPROVE THE FLOW OF TRAFFIC IN THE CITY AND COUNTY.
- 3.4(4) THE CITY AND COUNTY SHALL INSURE THAT THE TYPE AND DESIGN OF THE EXISTING AND FUTURE TRANSPORTATION SYSTEM AND THE PLANNING FOR FUTURE LAND USES RESULT IN AN EFFECTIVE TRAFFIC CIRCULATION PATTERN.
- 3.4(5) MASS TRANSIT PROGRAMS, BIKEWAYS AND OTHER ALTERNATIVES TO SINGLE OCCUPANT AUTOMOBILES SHALL BE ENCOURAGED.
- 3.4(6) CONTINUED USE AND DEVELOPMENT OF THE WILMINGTON HARBOR, ATLANTIC INTRACOASTAL WATERWAY, THE STATE PORTS AUTHORITY AND THE NEW HANOVER COUNTY AIRPORT SHALL BE ENCOURAGED.
- 3.4(7) CONFLICTS BETWEEN TRANSPORTATION FACILITIES, SUCH AS RAIL SERVICE, AND OTHER LAND USES SHALL BE MINIMIZED.

#### Implementation Procedures

1. The City and County staffs are directed to prepare for consideration priority local roadway level-of-service goals and the costs involved in obtaining and maintaining these goals. The Wilmington Urban Area Thoroughfare Plan, and its subsequent revisions, is considered to be one element of this work process.
2. Coordinative efforts between other local governments in the County and the region, along with State and Federal agencies, shall be initiated and/or maintained in order to encourage all transportation improvement plans and programs which directly or indirectly improve the flow of traffic in the City and County.
3. Cost effective methods for transporting people shall be developed to relieve Planning Area traffic congestion. Alternatives should include carpools, vanpools, bicycling and walking. Particular support will be given to the Wilmington Transit Authority in maximizing ridership and service to key areas. Emphasis will also be placed on pursuing bikeway opportunities.
4. Separate land use and transportation decisions, plans, and programs shall be designed so as to complement one another. Central to this implementation procedure is the development of an evaluation system which links proposed development type and intensity with existing and programmed transportation networks. The City and County staffs are

also directed to prepare for consideration access control standards for various roadway functional classifications.

5. Coordination shall be increased between the City and County and the Wilmington Harbor, the State Ports Authority, the Atlantic Intracoastal Waterway, the railways and the New Hanover County Airport in order to encourage the continued development of these transportation networks and to reduce conflicts between these networks and other transportation facilities and land uses.

### 3.5 CAPITAL FACILITIES AND COMMUNITY SERVICES POLICIES.

- 3.5(1) THE CITY AND COUNTY SHALL PROVIDE TIMELY AND COST-EFFECTIVE PROVISION OF CAPITAL FACILITIES AND COMMUNITY SERVICES ON THE BASIS OF ANTICIPATED GROWTH AND DEMAND.
- 3.5(2) COORDINATION BETWEEN THE CITY, COUNTY AND OTHER GOVERNMENTAL AGENCIES SHALL BE ENCOURAGED IN THE PROVISION OF SERVICES.
- 3.5(3) THE CITY AND COUNTY SHALL CONSIDER THE ADOPTION OF A SYSTEM OF IMPACT FEES TO INSURE TIMELY AND ECONOMICALLY-SOUND PROVISION OF PUBLIC SERVICES TO NEW DEVELOPMENT.

#### Implementation Procedures

1. Planning Area capital improvement programs, tied closely to the Growth Management Guide and the Land Classification Map, shall serve as the driving force behind the provision of public infrastructure and services. Continued analysis of the local taxpayers' willingness-to-pay for service improvements shall also be an element of these capital improvement programs.
2. The establishment and continuance of capital facilities maintenance programs shall be implemented by City and County staffs.
3. An interagency coordination program shall be a key element of any capital facility or community service extension or improvement.
4. The City and County staffs are directed to prepare for consideration a comprehensive system of equitably assigned impact fees to insure that the additional public costs of new development are absorbed by that development rather than by the general taxpayer; special effort shall be made to incorporate the wide range of additional public costs resulting from new development into this system, including expansions of existing capital facilities. Particular

emphasis shall be placed on those impacts which result from high density development.

### 3.6 URBAN DESIGN AND OTHER POLICIES

- 3.6(1) THE DEVELOPMENT OF MORE DETAILED LAND CLASSIFICATION OR FUTURE LAND USE MAPS AND PLANS SHALL BE ENCOURAGED.
- 3.6(2) THE DEVELOPMENT OF A UNIFORM LAND USE EVALUATION SYSTEM FOR USE BY CITY AND COUNTY OFFICIALS AND STAFFS SHALL BE ENCOURAGED.
- 3.6(3) ADEQUATE LANDSCAPING AND TREE PROTECTION SHALL BE ENCOURAGED FOR PARKING LOTS, RESIDENTIAL AREAS, AND COMMERCIAL AND INDUSTRIAL PROJECTS.
- 3.6(4) BUFFERING STANDARDS WHICH PROMOTE COMPATIBILITY BETWEEN LAND USE TYPES SHALL BE SUPPORTED.
- 3.6(5) THE USE OF SIGNS SHALL BE CONTROLLED IN A MANNER THAT RECOGNIZES BOTH AESTHETIC AND COMMERCIAL CONCERNS.
- 3.6(6) MULTIPLE AND ADAPTIVE REUSE OF THE AREA'S HISTORIC RESOURCES SHALL BE ALLOWED AND ENCOURAGED.

#### Implementation Procedures

- 1. Development for consideration of more detailed land classification maps and a uniform land evaluation system to aid in growth management in the Planning Area shall be a priority task for the City and County staffs.
- 2. Urban design regulations concerned with improving the aesthetics and compatibility of land uses, including landscaping, buffering and signage, shall continue to be refined pursuant to the public's increased concern with these issues.
- 3. Staff efforts to continue to encourage the preservation and maintenance of the historic resources of the Planning Area through innovative multiple and adaptive reuse techniques shall be supported.

## PUBLIC PARTICIPATION

### INTRODUCTION

Public participation constitutes a key element in the local planning process. By utilizing public participation to identify, define and otherwise bring into focus planning issues, local officials can build the consensus of community support necessary to accomplish broad goals and implement specific projects. The City and County are therefore committed to utilizing all available local media and educational resources to promote improved public participation.

The City and County further recognize that resource and development issues are often not fully explained to or examined by persons living in the affected neighborhoods. Therefore, the City and County are committed to utilizing neighborhood planning techniques, whenever feasible, to encourage public involvement in important neighborhood issues.

Public participation played a major role in the development of the 1986 Land Use Plan Update. Appendix A: Public Participation lists the methods used to encourage public participation in the development of the plan. These methods included meetings, group discussions, surveys and public hearings before official planning and decision-making boards.

### PUBLIC PARTICIPATION POLICIES AND IMPLEMENTATION PROCEDURES

In order that public awareness of and participation in the local planning process continues after the formal adoption of this Land Use Plan Update, the following policies and implementation procedures have been produced.

#### 4.0 PUBLIC PARTICIPATION POLICIES

- 4.0(1) THE CITY AND COUNTY SHALL CONTINUE TO CREATIVELY UTILIZE ALL SECTORS OF THE LOCAL MEDIA, AS WELL AS THE LOCAL EDUCATIONAL INSTITUTIONS, TO INCREASE PUBLIC AWARENESS AND INVOLVEMENT IN RESOURCE AND DEVELOPMENT ISSUES.
- 4.0(2) NEIGHBORHOOD PLANNING TECHNIQUES SHALL BE UTILIZED TO FURTHER ENCOURAGE PUBLIC AWARENESS AND INVOLVEMENT IN ISSUES AFFECTING NEIGHBORHOODS.

#### Implementation Procedures

- 1. The City and County shall continue efforts to inform, educate and involve the public in planning for the community, primarily through the regular and special meetings of the elected officials and citizen advisory boards.

2. The City and County shall continue efforts to effectively utilize the media, including radio and television public service announcements, newspaper coverage, meeting notification signs, letters and personal contacts.
3. The City and County shall encourage continued representation by a broad cross-section of the Planning Area residents on all citizen advisory boards.
4. The City and County shall encourage participation and seek to cooperate with organized groups such as Neighborhood Assemblies, business groups, professional organizations, environmental groups or service clubs.
5. The City and County shall attempt to utilize neighborhood planning practices and techniques whenever feasible.

## STORM HAZARD MITIGATION, EVACUATION AND RECOVERY

### INTRODUCTION

The City and County are vulnerable to the dangers and damages brought by hurricanes. This policy section is concerned with the Planning areas storm hazard mitigation, evacuation, and recovery programs as defined below in accordance with State guidelines:

Mitigation involves activities which reduce the probability that a disaster will occur and minimize the damage caused by a disaster. Such activities can range from the establishment of a nationwide hurricane tracking system to the adoption of local land use regulations which discourage residential construction in floodprone areas. Mitigation activities are not geared to a specific disaster; they result from a long-term concern for avoiding the damages of future natural disasters.

Evacuation refers to the range of activities involved in the assignment of evacuation routes and shelter locations, the determination of when to issue an evacuation order, the procedures for notifying the public of both the evacuation routes and the order to evacuate, and the implementation of the evacuation during the storm event. Evacuation activities are related to both specific storm events (e.g., actual evacuations) and storm events in general (e.g., establishment of evacuation routes and shelter locations; notification of the public of routes and shelters).

Recovery involves the full range of rehabilitation and reconstruction activities which seek to return the community to "normal." These include financial assistance to cover property damages, economic recovery plans, reassessment of the community's land development policies and the repair, reconstruction, and relocation of damaged structures and utility systems. Recovery activities may continue for years after a particular disaster.

### STORM HAZARD MITIGATION, EVACUATION AND RECOVERY POLICIES AND IMPLEMENTATION PROCEDURES

- 5.0 STORM HAZARD MITIGATION, EVACUATION AND RECOVERY POLICIES
- 5.0(1) THE CITY AND COUNTY SHALL CONTINUE TO DISCOURAGE HIGH-INTENSITY USES AND LARGE STRUCTURES FROM BEING CONSTRUCTED WITHIN THE 100 YEAR FLOODPLAIN,

EROSION-PRONE AREAS, AND OTHER LOCATIONS SUSCEPTIBLE TO HURRICANE AND FLOODING HAZARDS.

- 5.0(2) THE CITY AND COUNTY SHALL CONSIDER PURCHASING PARCELS LOCATED IN HAZARD AREAS OR RENDERED UNBUILDABLE BY STORMS OR OTHER EVENTS, FOR THE PURPOSE OF PUBLIC WATER ACCESS.
- 5.0(3) THE CITY COUNCIL AND COUNTY BOARD OF COMMISSIONERS, AFTER A HURRICANE STRIKES, SHALL BE ESTABLISHED AS THE RECOVERY TASK FORCES FOR THEIR RESPECTIVE JURISDICTIONS.
- 5.0(4) IN THE EVENT OF A HURRICANE, THE CITY COUNCIL AND/OR BOARD OF COMMISSIONERS MAY DECLARE A MORATORIUM UP TO 180 DAYS ON THE ACCEPTANCE OF ANY REQUEST FOR REZONING OTHER THAN FOR REZONING TO A LESS INTENSE USE, UNLESS THAT REZONING REQUEST IS INITIATED BY THE CITY OR COUNTY.
- 5.0(5) IN THE EVENT OF EXTENSIVE HURRICANE DAMAGE TO PUBLIC UTILITIES REQUIRING REPLACEMENT OR RELOCATION OF THESE UTILITIES, EFFORTS SHALL BE MADE TO LOCATE DAMAGED UTILITIES AWAY FROM HURRICANE HAZARD AREAS OR TO STRENGTHEN THEIR CONSTRUCTION.
- 5.0(6) PRIORITY SHALL BE GIVEN TO THOSE REPAIRS THAT WILL RESTORE SERVICE TO AS MANY PERSONS AS SOON AS POSSIBLE.
- 5.0(7) THE CITY COUNCIL AND/OR BOARD OF COMMISSIONERS MAY REQUEST THAT A NEW ASSESSMENT OF HAZARD AREAS BE PERFORMED, DEPENDING ON THE EXTENT OF FLOODING AND THE CHANGES TO SHORELINE AND INLETS CAUSED BY THE HURRICANE.
- 5.0(8) THE CITY COUNCIL AND/OR BOARD OF COMMISSIONERS MAY DECLARE A MORATORIUM UP TO 180 DAYS ON THE PERMITTING OF ANY NEW CONSTRUCTION, INCLUDING NEW UTILITY HOOK-UPS, OR REDEVELOPMENT CONSTRUCTION THAT WOULD INCREASE THE INTENSITY OF THE LAND USES EXISTING BEFORE THE HURRICANE.

#### Implementation Procedures

- 1. The City and County shall closely monitor all construction efforts involving both public and private utilities, including roads, to provide for less vulnerable redevelopment after a hurricane.
- 2. The City and County shall continue to maintain present plans for evacuation, recovery, and reconstruction.

## GROWTH MANAGEMENT GUIDE

### PURPOSE

The Growth Management Guide consists of a Land Classification Map and related text which serves to establish where and how growth should occur in the Planning Area over the next five years. The major emphasis of the Guide (referred to as the Development Guide in the 1981 Land-Use Plan Update) has been and will continue to be the determination of where high density development, defined herein as development greater than 2.5 residential units per acre, should be allowed. The Guide also addresses performance standards for industrial and commercial development.

As in the Urban Services Area concept established for the Planning Area in the 1981 Land Use Plan Update, the Growth Management Guide is primarily concerned with the efficient provision of public services and the protection of the coastal ecosystem. The Guide differs from the Urban Services Area concept through its utilization of service provision performance standards for dense development, rather than through attempting to discourage dense development of traditionally rural areas through the establishment of an Urban Service Boundary line, as in the 1981 Update.

The Guide embraces the general concept of allowing growth to occur as real estate market forces dictate, provided that: (1) The public is not inequitably burdened with the costs of such development; (2) Environmental impacts are minimized; and (3) The development is suitably designed to be compatible with existing and proposed surrounding land uses.

### LAND CLASSES

The following land classes are defined and discussed with regard to permitted types of development:

#### Developed

The purpose of the Developed class is to provide for continued intensive development and redevelopment of existing urban areas. These lands already are developed at a density approaching 500 dwelling units per square mile. Public urban services generally are already in place or scheduled within the immediate future. All lands within the City of Wilmington are considered Developed, except for Conservation areas. Density may exceed 2.5 units per acre within the Developed class, depending upon local zoning regulations.

#### Transition

The purpose of the Transition class is to provide for future urban development on lands that will receive adequate, economically-provided public services. Transition areas are

located in accordance with land use planning policies requiring optimum efficiency in land utilization and public service delivery.

The location of the Transition area in the northern part of the County is based primarily on the Smith Creek watershed, which will serve as a major determinant in the medium range phasing of the County's sewer system. The location of the Transition area in southern New Hanover County recognizes the extensive development efforts already occurring in the area, the presence of an adequate four lane divided highway (US 421) serving the area, and plans for the future phasing of the County's sewer system. The location of the Transition areas along US 421 in the northwestern section of the County recognizes the intense use of the area as an industrial corridor.

High density development (development that exceeds 2.5 residential units per acre) may occur within the Transition class so long as the following conditions are met:

(a) The development shall be adequately served by the following three services:

1. Sewer. The development shall be served by a Class IV sewer system as rated by the State of North Carolina. Although the County is constructing a County-wide sewer system in a series of phases scheduled over the next 10 years, the City or County may extend a sewer line to a new development ahead of the established schedule provided the following requirements are met:
  - The developer shall pay for all costs associated with the extension. The developer will be reimbursed by the City or County, however, when new or existing development pays to receive service from the extension.
  - The extension shall not impact the planned phasing of the sewer system to other areas.
  - The extension shall be sized, designed and constructed in accordance with City and County specifications.
2. Municipal or County water system. The development shall be served by a municipal or County water system. A private water system, however, may be utilized provided that

distribution and fire hydrant systems are constructed in accordance with City of Wilmington standards. The City or County may extend a water line to a new development, provided financing and design requirements similar to those for sewer line extensions are met.

3. Direct access to a minor arterial or larger access road, as classified under the New Hanover County Thoroughfare Classification System. In addition, if the development utilizes a roadway for access which is designated for improvement under the Wilmington Urban Area Thoroughfare Plan or if the development abuts or otherwise lies in the path of a roadway designated on the Thoroughfare Plan or if the development will generate traffic volumes which will exceed the existing excess capacity of the roadway for its rated level of service, the developer may be required to provide or share in the cost of the provision of the roadway improvements needed to adequately serve the proposed development and the community in general as a condition for allowing increased density.

- (b) The development is adequately designed to be compatible with existing and proposed surrounding land uses.

#### Resource Protection

The purpose of the Resource Protection class is to provide for the preservation and protection of important natural, historic, scenic, wildlife and recreational resources. The Resource Protection class has been developed in recognition of the fact that New Hanover County, the most urbanized county in the State, still contains numerous areas of environmental or cultural sensitivity which merit protection from urban land uses.

The Resource Protection class includes land adjacent to the estuarine waters which are classified SA by the North Carolina Division of Environmental Management. The class includes land in the Castle Hayne area where the protection of farmland, the rural lifestyle, and the aquifer system are highly important issues. Residential densities greater than 2.5 units per acre shall not be

permitted in the Resource Protection class. Residential densities may be required to be as low as 1.0 units per acre, depending on the development constraints within a particular area. Compatible commercial and industrial development may be located within the Resource Protection class so long as important resources are not adversely impacted. It is important to note that the County sewer service that will be provided to portions of this area is intended for the purpose of eliminating septic system pollution and not for encouraging increased density of development.

### Rural

The purpose of the Rural class is to provide for an area of low intensity land uses, such as agriculture, forest management, mineral extraction, and low density residential development, in order to discourage the premature conversion of these lands into urban-type uses. Extending urban services into the Rural class is considered an inefficient use of resources; consequently, residential densities in excess of 2.5 units per acre shall not be permitted in the Rural class. Compatible commercial and industrial uses may be located in the Rural class provided that natural resources are not adversely impacted.

### Community

The purpose of the Community class is to provide for a "crossroads" type of land development to help meet housing, shopping, employment and public service needs within the more rural areas of the County.

Lands to be classified Community are those areas within the rural areas of the planning jurisdiction which are characterized by a small grouping of mixed land uses (residences, general store, church, school, etc.), and which are suitable for small clusters of development requiring limited public services.

Only one rural "community" has been designated on the Land Classification Map: Castle Hayne.

Density shall not exceed 2.5 units per acre in the Community class.

### Conservation

The purpose of the Conservation class is to provide for effective long-term management of significant limited or irreplaceable natural resources. This management may be needed because of any of a variety of natural, cultural, recreational, productive or scenic values.

Lands to be placed in the Conservation class are generally the least desirable for development because:

- They are too fragile to withstand development without losing their natural value; and/or

permitted in the Resource Protection class. Residential densities may be required to be as low as 1.0 units per acre, depending on the development constraints within a particular area. Compatible commercial and industrial development may be located within the Resource Protection class so long as important resources are not adversely impacted. It is important to note that the County sewer service that will be provided to portions of this area is intended for the purpose of eliminating septic system pollution and not for encouraging increased density of development.

### Rural

The purpose of the Rural class is to provide for an area of low intensity land uses, such as agriculture, forest management, mineral extraction, and low density residential development, in order to discourage the premature conversion of these lands into urban-type uses. Extending urban services into the Rural class is considered an inefficient use of resources; consequently, residential densities in excess of 2.5 units per acre shall not be permitted in the Rural class. Compatible commercial and industrial uses may be located in the Rural class provided that natural resources are not adversely impacted.

### Community

The purpose of the Community class is to provide for a "crossroads" type of land development to help meet housing, shopping, employment and public service needs within the more rural areas of the County.

Lands to be classified Community are those areas within the rural areas of the planning jurisdiction which are characterized by a small grouping of mixed land uses (residences, general store, church, school, etc.), and which are suitable for small clusters of development requiring limited public services.

Only one rural "community" has been designated on the Land Classification Map: Castle Hayne.

Density shall not exceed 2.5 units per acre in the Community class.

### Conservation

The purpose of the Conservation class is to provide for effective long-term management of significant limited or irreplaceable natural resources. This management may be needed because of any of a variety of natural, cultural, recreational, productive or scenic values.

Lands to be placed in the Conservation class are generally the least desirable for development because:

- They are too fragile to withstand development without losing their natural value; and/or

- They have severe or hazardous limitations to development; and/or
- Though they are not highly fragile or hazardous, the natural resources they represent are too valuable to endanger by development.

Generally, estuarine Areas of Environmental Concern, as defined by the State of North Carolina, and adjacent lands within the 100-year floodplain have been classified as Conservation.

Conservation areas should be preserved in their natural state; woodland, grassland and recreation areas not requiring filling are the most appropriate uses. Exceptions to this standard are limited to water-dependent uses (i.e., uses that cannot function elsewhere), shared industrial access corridors, and those exceptional development proposals which are sensitively designed so as to effectively preserve the natural functions of the site. The following guidelines clarify these Conservation area objectives:

- (1) Water dependent uses may include: utility easements, docks, wharves, boat ramps, dredging, bridge and bridge approaches, revetments, bulkheads, culverts, groins, navigational aids, moorings, pilings, navigational channels, simple access channels and drainage ditches. In instances where a water-dependent use involves coverage of sizeable land areas, a reclassification removing the property from the Conservation class may be required. Consequently, reclassification may be needed for major warehouse/shipping operations along the Cape Fear River, where extensive loading, handling and storage areas consume relatively large land areas and afford limited opportunities to integrate the use with the site's natural features. By contrast, water dependent uses which can be designed to preserve a site's natural features may not require reclassification.
- (2) Shared industrial access corridors, as discussed in the U.S. Army Corps' of Engineers' The Wilmington Harbor: Plan for Improvement, would provide necessary access to the channel of the Northeast Cape Fear River for industries located on high ground while minimizing the adverse environmental impacts of such access.
- (3) Exceptional developments preserving natural features are projects which are sensitively designed so as to harmonize with the site's natural features. Such projects: Minimize erosion, impervious surfaces, runoff and siltation; Do not adversely impact estuarine resources; Do not interfere with access to or use of navigable waters; Do not require extraordinary public expenditures for maintenance; Insure that ground adsorption sewage systems, if used, meet applicable standards; and Do not damage historic, architectural or archeological resources.

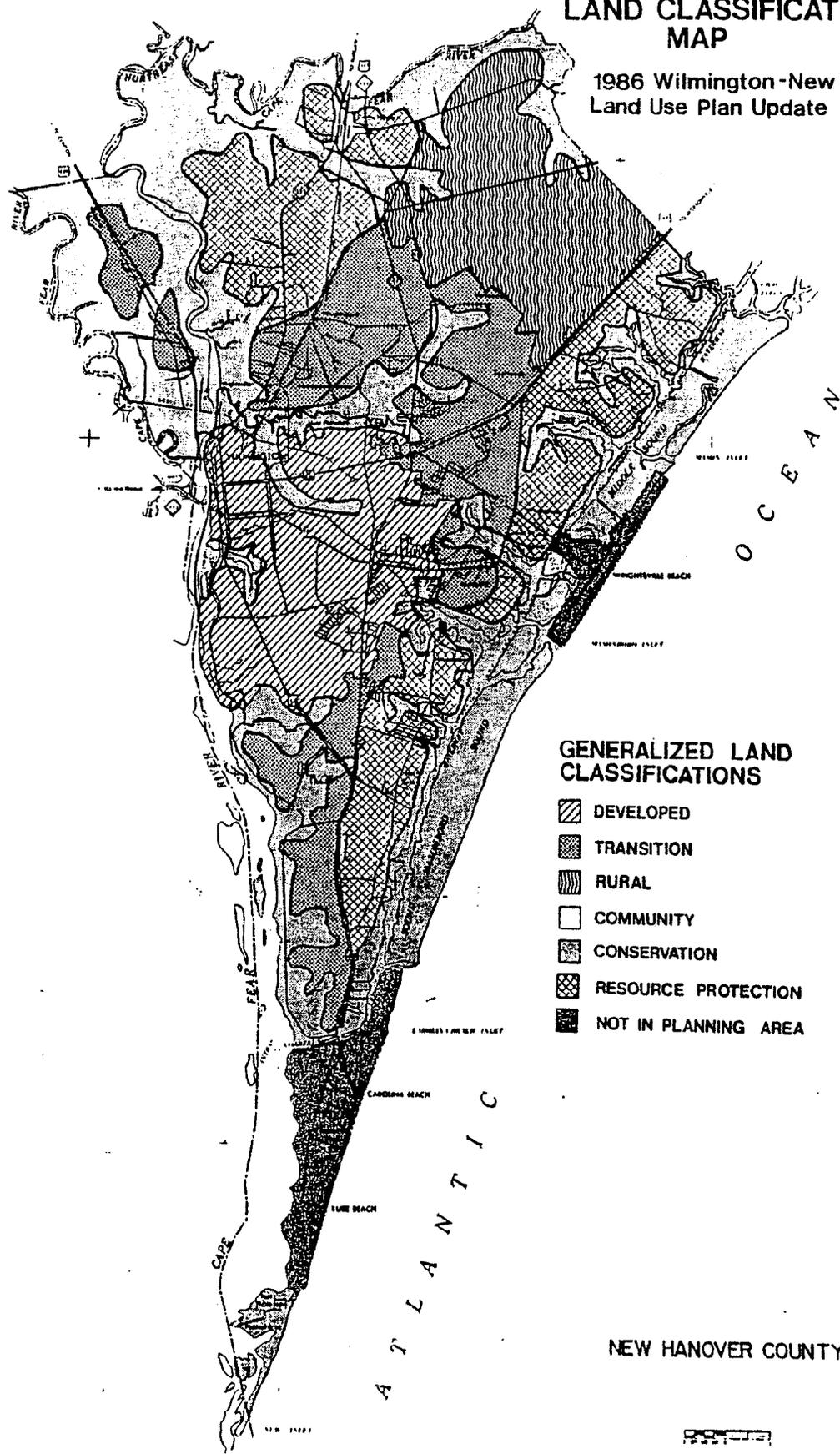
In no case shall residential density in the Conservation class be permitted to exceed 2.5 units per acre, regardless of the existence of public urban services. Residential densities may be required to be as low as 1.0 units per acre, depending on the environmental constraints within a particular area. It is important to note that certain Conservation areas may be served by public sewer in order to eliminate septic system pollution, but this should not be construed as an opportunity to facilitate increased development density.

**LAND CLASSIFICATION MAP**

Included with the text of this document, on the following page, is a Land Classification Map which provides a general description of the location of each of the land classes established in this section. This Land Classification Map should not be utilized for site-specific interpretive purposes; its scale precludes such detailed use. Site-specific questions concerning properties described on the Land Classification Map should be directed to the City of Wilmington, Planning and Development Department and/or the New Hanover County Planning Department, as applicable.

# LAND CLASSIFICATION MAP

1986 Wilmington-New Hanover  
Land Use Plan Update



## GENERALIZED LAND CLASSIFICATIONS

-  DEVELOPED
-  TRANSITION
-  RURAL
-  COMMUNITY
-  CONSERVATION
-  RESOURCE PROTECTION
-  NOT IN PLANNING AREA

NEW HANOVER COUNTY



## AMENDING THE PLAN

The purpose of the Wilmington-New Hanover Land Use Plan is to provide a local planning guide for future growth and development during the period covered by the Plan. Accordingly, the Plan's essential elements - the policies and the Land Classification Map - should remain substantially unchanged during the Plan's tenure. Frequent changes of these elements would undermine the Plan's effectiveness. Nevertheless, future developments involving unanticipated conflicts with the Plan may warrant amendment of the Plan in some instances. This section outlines procedures applicable to such amendments.

### 1. Form of Application

Requests for amendment to the Plan (text or map) must be submitted in writing to the Planning Department office(s) at least 15 working days prior to the next meeting of the appropriate planning advisory body(ies). Applicants shall specify the reasons why the proposed amendment is in the public interest. Applications for map revisions shall include a site map (scale not less than 1" = 1 mile) which clearly indicates the area in question. Local government shall be reimbursed by the applicant for all advertising costs.

### 2. Jurisdiction

The following rules are provided to determine which governmental unit has jurisdiction regarding proposed Plan amendments. All text amendments must be reviewed and approved by City and County government. Requests for map amendments shall be reviewed as follows:

- The City of Wilmington shall review and consider all changes to areas within the City corporate limits.
- The City of Wilmington and New Hanover County shall review and consider all modifications to the Transition area lying outside City limits.
- New Hanover County shall review and consider all other map changes.

### 3. Form of Review

In accordance with CAMA guidelines, a 30-day notice of the hearing date(s) upon which the respective governing body(ies) considers approval of the amendment shall be required. All changes will be submitted to the State Division of Coastal Management. Proposed amendments may then be subject to review by the Coastal Resources Commission, as determined by the State Division of Coastal Management.

All proposed amendments shall be reviewed by applicable planning advisory bodies prior to final governmental action.

Where approval by both governing bodies is required under paragraph (2) above, such approvals must be in the same form.

APPENDICES  
1986 LAND USE PLAN UPDATE

The following two appendices, Appendix A: Public Participation and Appendix B: Implementation Scorecards, provide, respectively, an analysis and supporting documentation of the public participation sources utilized in the development of the 1986 Land Use Plan Update and a listing of the implementation activities of the City and County which carry out the policies of the 1981 Land Use Plan Update. Readers of this document should therefore recognize that it is a companion-piece to the Policies for Growth and Development document which comprises the focus for the 1986 Wilmington-New Hanover Land Use Plan Update.

APPENDIX A  
PUBLIC PARTICIPATION

INTRODUCTION

The purpose of this Appendix is to briefly list the reasons for public participation; describe the participation process used by the County and City in the 1986 Update of the Land Use Plan; and to discuss the initial results of the participation process in identifying the major issues.

REASONS FOR PUBLIC PARTICIPATION

Public participation is extremely important in the land use planning process for the following reasons:

1. Public participation aids in identifying and defining the issues;
2. The public may establish an order of priority for those issues that it believes are the most critical and the most deserving of public funds;
3. Citizens determine the type of community they wish to attain, and set the direction of policies by which to achieve that goal; and
4. The process of public participation helps to create a sense of community which, in turn, helps to ensure that the chosen policies are effectively implemented.

PUBLIC PARTICIPATION PROCESS

New Hanover County and the City of Wilmington has established a multi-component public participation process to aid in the 1986 Update of the Land Use Plan. The major components include the following:

A. Telephone Survey of Registered Voters

A telephone survey of 502 registered voters who voted in the last presidential election was conducted by Independent Opinion Research, Inc. (IOR), in order to identify priority issues in the unincorporated County and the City. The survey was conducted from December 5-11, 1985. The 502 voters were randomly chosen using random digit dialing. Two hundred fifty six (256) voters were from the City. Of the 246 voters from the unincorporated County, 31 voters were from Cape Fear Township, 125 voters from Harnett Township, 56 from Masonboro Township and 23 voters from Federal Point Township. The number of voters chosen from the City and each township were based on the proportion of populations in the City and each township, in order to give representative coverage of the County. The number of surveys conducted and the survey methodology provided a confidence level of approximately 95% that the results of the survey are within several percent of being representative of the opinion of all active, registered voters in the unincorporated County and City.

B. Land-Use Issues Week

The County and City Planning Departments conducted a Land-Use Issues Week from February 24-27, 1986, in an effort to solicit further public input in identifying issues of concern. This week consisted of five evening public meetings held throughout the County and City at local schools. The meetings were advertised in the Wilmington Star News and other local papers. Press releases and copies of the IOR report were distributed to newspapers, radio and television stations, citizen groups, and other interested parties.

Each meeting, attended by an average of approximately 30 citizens, began with a slide show introducing the planning process and its relationship to local land use issues. Small group discussions were then led to solicit comments and opinions. The citizens then completed a questionnaire nearly identical to a questionnaire used during the 1981 Land-Use Plan Update process. Presentations have also been made to various professional groups and civic clubs that have expressed an interest in the County's policies for growth.

C. Land-Use Plan Week

The County and City Planning Departments conducted four evening public meetings in July, similar to the format followed during Land-Use Issues Week, in order to solicit comments concerning the draft Land-Use Plan presented in this report.

D. Public Hearings

Formal public hearings concerning the draft Land-Use Plan were held before the City Planning Commission, County Planning Board, City Council, and County Commissioners, during July, August, and September. The City Council gave preliminary approval to the Plan September 23, 1986, and the County Commissioners approved it October 20, 1986. The North Carolina Coastal Resources Commission will give State approval.

E. Presentation to Citizen Groups

The County and City Planning Departments have informed local citizen groups that staff would be pleased to make presentations concerning the Land-Use Plan to the groups.

## IDENTIFICATION AND RANKING OF THE ISSUES

The principal methods utilized in identifying issues and ranking them in importance have been the IOR survey and Land Use Issues Week, as discussed in the previous section. The results of the IOR survey are summarized in Table A-1, which simply lists the percentages of voters who responded in various ways to the questions. The results of the Land Use Issues Week are summarized in Table A-2, which lists the percentages of respondents for both the 1981 and 1986 questionnaires, and Table A-3, which summarizes some of the comments made by the public.

Generally, the public has expressed concern over growth management issues in response to impacts caused by the moderately rapid growth of the area in the past decade and the need for increased infrastructure services. The major issue, without question, is the need for new and expanded roads. Sixty-one percent (61%) of the voters, according to the IOR, feel that roads and traffic are the major problems facing the County. In addition, traffic was the most frequently mentioned issue during Land Use Issues Week.

Other growth management concerns include the need for more effective planning and land use regulations to ensure greater compatibility of land uses. Strip commercial development and the encroachment of dense, multi-family housing into single-family neighborhoods are examples of the concerns mentioned. In addition, the participants in Land Use Issues Week believe that lack of enforcement of regulations was a major problem.

Environmental problems have continued to be of major concern. According to the IOR survey, 72% agree that water quality is declining in the rivers, creeks, and sounds. Fifty eight percent (58%) believe that their well water is becoming polluted.

Finally, concern has been expressed that development is sprawling all over the County and that growth is proceeding too rapidly. According to the IOR survey, 41% feel the County is growing too fast, compared to only 6% that the County is not growing fast enough. Forty-eight percent (48%), however, feel that the County is growing at an acceptable rate.

TABLE A-1  
 IOR QUESTIONS AND RESPONSES

Note: All numbers after question 4 are percentages.

New Hanover County Survey (N=502)  
 December, 1985

Telephone # \_\_\_\_\_

Hello, I'm \_\_\_\_\_ (write name)  
 from Independent Opinion Research, the national opinion firm, and  
 we're conducting a public opinion survey among over 500  
 registered voter in New Hanover County. This survey is being  
 done to assist New Hanover County update its land use plan, and  
 your input is needed. Your answers are confidential.

1. First of all, are you registered to vote in New Hanover  
 County?

1(x) Yes (continue) 2( ) No/Not Sure (TERMINATE).

2. Did you vote in the 1984 Presidential Election?

1(x) Yes 2( ) No/Not Sure (TERMINATE).

3. Which of the following areas do you live in...

1(256) Wilmington 2( ) Wrightsville Beach 3( ) Carolina  
 Beach 4( ) Kure Beach 5(256) Unincorporated area outside  
 city limits of these four municipalities. (TERMINATE  
 INTERVIEW IF 2, 3, 4)

4. Where did you vote? (which school or public building).

TOWNSHIPS-CAPE FEAR 31, HARNETT 125, MASONBORO 56, FEDERAL POINT  
 23, WILMINGTON 256, UNSURE 11

5. What, in your opinion, is the most important issue facing  
 New Hanover County that the county can do something about?

TRAFFIC	23%	CONSOLIDATION	7%
ROADS	16%	SEWAGE AND WATER	5%
DEVELOPMENT	9%	ENVIRONMENT	3%

6. Do you feel the county is growing?

1 (41) too fast 2 (48) at an acceptable rate 3 (6) not  
 fast enough 4 (1) other 9 (1) don't know/no opinion

7. What economic activity would you most like to see in New  
 Hanover County?

1 (14) heavy manufacturing (like our chemical plants)  
 2 (31) light "high tech" industry (electrical manufacturing)  
 3 (15) trade and service business (retail, banking & trade)

4 (19) tourism/tourist attractions  
 9 (10) no opinion/not sure  
 6 (11) all kinds

8. Should developers be required to share the costs to help pay for new public facilities needed because of growth, such as new roads, parks and schools?

1 (83) Yes 2 (9) No 3 (2) No Opinion 4 (4) Depends 9 (2) Not sure

9. If answer 9 is no, then ask, ) Should costs of growth be entirely covered by the property tax paid by everyone?

1 (55) Yes 2 (43) No 3 ( ) No opinion 9 (2) Not sure

Please tell me whether or not you agree with the following statements as they relate to New Hanover County. If you have no opinion or have never heard of the issues, please say so.

	(1) <u>agree</u>	(2) dis- <u>agree</u> (Percent)	(3) no <u>opinion</u>	(9) don't <u>know</u>
10. Water quality is declining in our river, creeks, and sounds.	72	7	10	11
11. I have no problem parking at the beach when I want to.	17	68	10	5
12. Wilmington needs a convention center.	73	16	6	5
13. Our well water is becoming polluted.	58	13	13	16
14. Billboards are needed along our highways.	24	70	6	2
15. Illegal trash dumping is a problem in my part of the county.	48	44	5	3
16. More public boat access to the river & sounds is needed.	58	15	15	12
17. Traffic congestion is a problem for me.	87	12	1	0
18. New Hanover County has enough public parks & playgrounds.	38	48	7	7

19.	Uniform regulations for zoning and land use should be adopted by Wilmington & New Hanover County (to avoid multi-family developments in single family neighborhoods, for example).	77	6	10	7
20.	There are too many townhouses and condominiums and other dense development along the creeks and sounds.	70	16	8	6
21.	Wilmington and New Hanover County should not consolidate.	35	44	12	9
22.	Continued revitalization of downtown Wilmington is necessary.	73	18	6	3

Please tell me how important you feel the following issues are to Wilmington and New Hanover County. Are they very important, somewhat important, or not important, or do you have no opinion or are not sure of the issues?

	<u>Very Imp.</u>	<u>Some What Imp.</u> (Percent)	<u>Not Imp.</u>	<u>N/O</u>	<u>Not Sure</u>	
23.	Lack of fire hydrants in the outlying areas of the County.	61	15	7	8	9
24.	Use of neighborhood streets for shortcuts by through traffic.	42	24	27	4	3
25.	Lack of public money to help declining neighborhoods.	44	25	17	8	6
26.	Beach erosion that results in the destruction of homes or businesses.	48	17	25	5	5
27.	Lack of public transportation (buses) in the county.	37	21	24	8	10
28.	Commercial development intruding into residential neighborhoods.	61	13	14	5	7
29.	Too many government restrictions on building construction and land development.	34	15	32	7	12

30.	Rapid strip commercial development along major roads, such as College, Market, and Oleander.	51	22	18	5	4
31.	Lack of bicycle paths from downtown Wilmington to Wrightsville Beach & Carolina Beach.	57	14	16	5	3
32.	Removal of trees due to land development.	58	23	11	4	4
33.	Lack of compulsory trash pick up in the unincorporated area.	46	21	12	11	10
34.	Closing of shellfish beds.	51	17	9	12	11
35.	Building new roads and widening streets to handle traffic needs.	92	5	1	1	1

36. Now that we have gone through some of the issues facing New Hanover County, which one do you consider the most important problem?

TRAFFIC 41%	PLANNING 5%	ZONING 4%
ROADS 20	COASTAL DEVELOPMENT 4%	ENVIRONMENT 3%

37. If spending additional dollars would be required to solve your problem, would you be willing for the City or County to do so?

1(80) yes    2(4) no    3(2) depends    4(8) no opinion    9(6) N/S

Finally to insure that we have a representative sample of the County, I need to ask you a few questions for statistical purposes only.

38. What was the last grade you completed in school?

- 1 ( ) 8th grade or less
- 2 ( ) 9th-11th grade
- 3 (45) High School graduate/grade school
- 4 ( ) some technical training
- 5 (25) some college/technical training
- 6 (23) college graduate
- 7 ( 7) post graduate
- 8 ( ) won't say
- 9 ( ) not sure

39. What is your occupation?

White collar 43%	Homemaker 17%
Retired/Disabled 16%	Blue Collar 12%
Service Worker 5%	Self-employed 3%
Student 2%	Unemployed 2%

40. What is your age?

1 (14) 18-29	2 (27) 30-39	3 (16) 40-49	4 (17) 50-59
5 (10) 60-64	6 (16) 65+	7 ( ) won't say	9 ( ) not sure

41. Do you own or rent your home?

1 (78) own    2 (22) rent    9 ( ) not sure

42. What was your total family income in 1984?

1 (12) \$9,999 and under	6 (21) \$30,000-\$39,999
2 ( 8) \$10,000-\$14,999	7 (10) \$40,000-\$49,999
3 (13) \$15,000-\$19,999	8 (12) \$50,000 or more
4 (10) \$20,000-\$24,999	9 ( ) N/S
5 (14) \$25,000-\$29,999	0 ( ) Won't say

43. And, just to make sure we have a representative sample, can you tell me you race?

1 (81) white    2 (19) black    3 ( ) oriental    4 ( ) other

THANK YOU FOR YOUR TIME

44. Sex:    1 (58) female    2 (42) male

TABLE A-2

PUBLIC OPINION QUESTIONNAIRE RESULTS  
 WILMINGTON-NEW HANOVER COUNTY LAND USE PLAN, 1981 AND 1986

The following questionnaire results are presented as a percentage of the total number of responses received for each question. In some cases, the across-row response totals do not equal 100%. This is due to rounding.

		<u>1981</u>		<u>1986</u>					
Number of Completed Questionnaires		42		90					
(PERCENTS)									
		<u>Serious Concern</u>		<u>Some Concern</u>		<u>No Concern</u>		<u>No Response</u>	
		<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>
<b>A. <u>URBAN GROWTH</u></b>									
1.	Sprawling development patterns	38%	66%	48%	27%	5%	0%	5%	7%
2.	Cost of providing public services.	57	49	38	41	0	3	5	7
3.	Rapid population growth.	19	62	55	33	17	3	10	2
4.	Other.	0	10	0	0	0	0	100	90
<b>B. <u>ECONOMIC DEVELOPMENT</u></b>									
1.	Substandard housing.	45	31	43	49	7	10	5	11
2.	Decline of business in downtown area.	50	25	40	49	5	10	5	9
3.	Unemployment.	48	22	45	52	0	15	7	11
4.	Cost of living rising faster than family incomes.	59	42	29	34	2	14	10	10
5.	Other.	0	1	0	2	0	0	100	97
<b>C. <u>ENVIRONMENTAL CONCERNS</u></b>									
1.	Contamination of ground water by inappropriate development.	74	85	19	12	5	1	2	1
2.	Closing of shellfish areas.	55	74	36	23	5	2	2	1
3.	Loss of wet lands.	50	77	43	19	2	1	5	3
4.	Pollution of surface waters by septic tanks.	71	77	19	14	5	3	5	6
5.	Pollution of surface waters by land runoff.	59	78	36	19	2	0	5	3
6.	Solid waste disposal.	79	71	7	18	2	5	2	6
7.	Air quality.	43	60	36	29	5	6	12	6
8.	Other.	0	7	0	0	0	0	100	93

	<u>Serious Concern</u>		<u>Some Concern</u>		<u>No Concern</u>		<u>No Response</u>	
	<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>
<u>D. LAND USE</u>								
1. Inadequate buffer zone between industry and residential areas.	43%	43%	40%	49%	14%	3%	2%	5%
2. Strip commercial development.	40	62	38	28	10	6	10	5
3. Encroachment of commercial development into residential areas.	43	62	43	33	10	2	5	3
4. Loss of prime mineral resource sites to development.	17	30	36	35	29	24	14	12
5. Residential development on inappropriate soils.	48	54	40	39	7	4	5	3
6. Loss of prime farm and woodlands to development.	36	55	36	31	17	4	12	10
7. Development in flood hazard areas.	48	57	29	31	14	4	10	9
8. Development too close to the beach.	52	67	21	21	21	3	5	9
9. Other.	0	3	0	1	0	0	100	96
<u>E. TRANSPORTATION</u>								
1. Lack of an outer loop or beltway.	38	62	40	29	19	6	2	5
2. Rail service through residential areas.	19	13	40	39	36	36	7	12
3. Inadequate public transit service.	31	27	50	44	17	23	2	6
4. Lack of bikeway routes.	36	38	36	40	29	16	10	6
5. Loss of existing neighborhoods.	31	43	45	42	14	7	10	8
6. Other.	0	1	0	0	0	0	100	99
<u>F. RECREATION</u>								
1. Loss of wildlife and open space.	43	65	36	26	14	3	10	6
2. Lack of planned County-wide open space system.	43	61	43	31	10	3	5	6
3. Inadequate recreational facilities.	31	37	50	49	14	9	5	6
4. Inadequate public access to water.	38	51	40	34	17	9	5	7
5. Other.	0	1	0	0	0	0	100	99

LOCAL GOVERNMENT  
FUNDING PRIORITIES

	<u>High Priority</u>		<u>Medium Priority</u>		<u>Low Priority</u>		<u>No Response</u>	
	<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>	<u>1981</u>	<u>1986</u>
1. Beach erosion control.	5%	30%	40%	27%	50%	33%	5%	11%
2. Bikeways.	26	29	46	38	36	27	0	7
3. Civic center.	38	15	43	39	19	36	0	11
4. Old Courthouse renovation	NA	17	NA	38	NA	37	NA	9
5. Downtown revitalization	38	33	50	39	10	16	2	12
6. City drainage	36	46	48	38	14	7	2	9
7. County drainage	45	50	36	35	14	6	7	10
8. Area - wide parks.	24	29	55	47	19	14	2	10
9. Neighborhood parks.	36	36	38	42	26	13	0	9
10. New public schools	29	26	40	42	31	19	0	12
11. Renovation of public schools	50	43	43	42	5	4	2	11
12. Road construction and maintenance	38	69	50	23	10	1	2	7
13. Improvement of city sewer system.	26	42	55	38	12	10	7	11
14. Construction of county sewer system.	52	61	36	22	14	7	0	11
15. Improvement of city water system.	38	41	48	37	14	11	0	12
16. Construction of county water system.	43	40	36	31	21	16	2	14
17. Public access to water.	26	39	24	29	21	10	29	23
18. Other.	0	1	0	0	0	0	100	99

Residence Location For Questionnaire Respondents

	<u>1981</u>	<u>1986</u>		<u>1981</u>	<u>1986</u>
Cape Fear Township	12%	20%	Point Township	5%	2%
Harnett Township	26	29	Wilmington	40	30
Masonboro Township	14	13	No Response	2	3

TABLE A-3

SUMMARY OF COMMENTS DURING  
LAND USE ISSUES WEEK, 1986

Economic and Community Development  
New Hanover County/Wilmington

<u>Number of Times Mentioned</u>	<u>Issue</u>
25	<p>Traffic: problems along Wrightsville Avenue, 17th Street, Market Street and Wilshire Boulevard, widen Market Street and South College Road, extend 41st Street. Insufficient intersection design and no signal coordination. Traffic problems in Castle Hayne. Need for protection of transportation corridors. Another access for Middle Sound Road. Outer loop should be kept out of Wilmington. Need to guard against single access development. Create toll roads.</p>
23	<p>Aesthetic concerns: control litter; eliminate billboards and visual pollution in city. More attractive shopping centers; preservation of trees and other vegetation; improve City entrances.</p>
21	<p>Need tools to control active development and provide for orderly controlled growth. Lenient zoning laws need to be strengthened; too easy to change zoning. Present laws should be enforced. Need for stricter coordination/review of special use permits and rezonings. Need more long range planning. Strengthen the permitting process. Change zoning to less intensive uses. Define optimal growth. Require uniform zoning regulations.</p>
12	<p>Strengthen cluster commercial policies; stop strip development; separate commercial zones. Business encroachment in residential areas should not be allowed. Buffer areas should be required between uses.</p>
10	<p>More recreational programs and facilities; park planning; improve inadequate parks. More open space dedication. Present recreational facilities need lights.</p>

Number of  
Times Mentioned

Issue

10	Developers should pay for widening roads and for provision of utilities. Impact fees should be responsibility of developer. Developer should dedicate open space.
5	Safer and more bike paths. Save rights of way for bike paths.
5	Better subdivision design; need easement rights for drainage.
4	Better zoning controls along the waterways and major roads; special attention to the boom along the waterways. How will the potential increase of density on the waterway be handled? Performance zoning is dangerous because it allows dense development along the creeks.
3	More performance zoning; maintain a mixture of land uses.
3	Preserve existing neighborhoods even to design standards so that things fit in. Prevent the destruction of historic homes. Support housing renovation.
3	Better public transit; protect trolley line.
2	Need for low and moderate income housing.
2	There is no avenue for participating on airport noise planning and impact of airport on residential development.
2	Central sewer and zoning by planning, not vice versa.
2	Fire protection, fire marshal and fire department tax.
2	Prorate taxes and return them; more federal and state money to Castle Hayne.
2	Need parking, particularly downtown
1	Build civic center out in County
1	Protect rail lines
1	Day care centers

Number of  
Times Mentioned

Issue

1	Control traffic induced pollution
1	Require that undeveloped land be taxed at market value.
1	Street maintenance should be better
1	More money for educational materials at the public schools.
1	Sidewalks where roads are being resurfaced
1	Encourage development of vacant lots in Hemenway.
1	Convenient shopping is needed in the inner city
2	Consolidation (for)
1	Consolidation (against)
1	Better police protection

**Resource Management  
New Hanover County/Wilmington**

Number of  
Times Mentioned

Issue

13	Better enforcement and more teeth in regulations; involve legal department in enforcement; more enforcement personnel and enforcement laws.
13	Control drainage through plans and regulations; include a comprehensive drainage plan. Regulate farmland, industrial, impervious surface runoff.
10	Better environmental protection in general
7	Water access to beach and waterways; tie river access to growth
2	Emphasize protection of river quality
2	Clearing permits are inadequate; stop land clearing.

Number of  
Times Mentioned

Issue

1	Improve air quality permitting
1	Better local government coordination w/DOT
1	There is over-regulation at present
1	Make a more festive downtown
1	Make County's waterways more identifiable
1	Better regulation of package treatment plans
1	Preservation of farmlands

**Resource Protection  
New Hanover County/Wilmington**

Number of  
Times Mentioned

Issue

13	Protect the aquifer system and the ground water system
4	Control beach erosion; let nature take its course; require bigger setbacks
3	Control pollution from boat usage and marina discharge
2	Preserve air quality around airport and industry and other areas
2	Development of marshlands should not be allowed
2	Shellfish beds should be protected
2	Control septic tank pollution
1	Need environmental impact study for development in environmentally sensitive areas
1	Protect Masonboro Island
1	Water should be sampled throughout the County
1	Protect sand fiddler crabs

Number of  
Times Mentioned

Issue

1	CRC members should only be from the eastern part of the state
1	Increase wildlife preservation
	<b>Citizen Participation New Hanover County/Wilmington</b>
8	Better public relations and public information i.e., use cable TV for notification of planning issues; information office; education of youth about planning; and better newspaper coverage
4	Better signs and notification of rezoning requests
3	Community clean up - i.e., work force for clean up; support clean community and encourage area pride
2	Correct apathy; more effective citizen participation
2	More public meetings
2	Organize neighborhood groups
2	Correct the adversary relations between City administration and the public
1	Meeting place for council is inadequate and should be changed to, for example, the judicial building
1	System in which the minority rule would affect the decisions of the majority
1	Better notification of utility work scheduling
1	More involvement from schools
1	Politics keep out those willing to serve
1	Publicize bicycle safety and regulations
1	Inform citizens of what they can do to preserve trees and vegetation.
1	What are the benefits of growth? Explain for public

**Storm Hazard Mitigation  
New Hanover County/Wilmington**

<u>Number of Times Mentioned</u>	<u>Issue</u>
4	More direction and control over evacuation; evacuation of Shell Island would be difficult; need adequate evacuation plan for nuclear accidents
2	Guard against single access development; Middle Sound Road is a bottleneck for evacuation - i.e. Bayshore Estates and Figure Eight Island.
2	Improve single bridge access to Wrightsville Beach
1	Utilities go out during storms
1	Flooding of Burnt Mill Creek

APPENDIX B  
IMPLEMENTATION SCORECARDS

Since the 1981 Land Use Plan Update, the City and County have been involved in a number of activities which have served to implement the policies established in that Plan Update. These implementation actions are listed below as City and County "scorecards".

City of Wilmington  
Implementation Scorecard

The 1981 Policies for Growth and Development established policy statements intended to guide decisions concerning the physical development of the City of Wilmington. The following outline summarizes those policies under specific policy headings and describes actions taken by the City of Wilmington over the past five years to implement the policies.

Economic and Community Development

- I. Economic Development Policies - Inherent to these policy statements is the intent that the City of Wilmington encourage economic expansion by encouraging growth in industry, tourism, housing and commerce, and that the City build and maintain transportation systems to attract and encourage continued growth in the area. City plans that serve to implement these intentions are:
- A. Riverwalk Improvement Plan and Riverfront Plan - Both plans recommend projects for improvements and development along the City's riverfront. These projects enhance the growth of tourism in the City. Examples of projects include:
1. Development of Recreational Boat Launch
  2. Water Street Plaza Park Extensions
  3. Development of Riverfront Walkway
  4. Development of Downtown Area Marina
- The plans were adopted in 1984 and 1982, respectively.
- B. Guidelines for Neighborhood Conservation - Outlines policies to fund the rehabilitation of old houses and to provide for new construction when feasible. The Guidelines were amended in 1984.
- C. Ten Year Thoroughfare Plan - Outlines roads to be improved or constructed over the next ten years. Good roads make the area more attractive for industry, commercial activity, tourism, etc. Examples of roadway construction projects include:
1. Smith Creek Parkway/Downtown Spur

2. Northern and southern phases of the Wilmington Urban Area Outer Loop
3. NC 132 (Shipyard Boulevard to US 421) - Four-laning.

This plan is currently being updated and is scheduled for completion during 1986.

- D. Policy by Wilmington Transit Authority to hold mass transportation costs at a level affordable by city's lower income residents. Bus fare has been \$.50 since 1983.  
This policy was adopted on January 12, 1984.
- E. Action by City Council on January 14, 1986 endorsing the Small Business Incubator project. This project is designed to promote and encourage the start of small businesses throughout the City of Wilmington by providing financial and technical assistance.
- F. Three-year Housing and Community Development Plan - Identifies the housing and community needs of the City and sets long and short-term objectives for addressing those needs to include the development of viable urban areas by providing decent housing and expanding economic opportunities, principally for persons of low and moderate income. This plan was adopted in October, 1985.

II. Economic Efficiency/Energy Conservation Policies are concerned with the efficient use of urban services and with energy conservation.

- A. The City's Capital Improvement Program (CIP) addresses the intent of these policies. It outlines improvements to and construction of urban services and outlines expenditures for those services over the next five years. Examples of these improvements and their associated costs are:
  1. Streets and drainage - \$63,013,000
  2. Public facilities - \$8,054,000
  3. Water and sewer rehabilitation - \$12,400,000
  4. Water and sewer - \$45,329,000This program aims to accommodate area demand and growth. The CIP was adopted in 1985.
- B. The Neighborhood Conservation Program Guidelines set policy governing the allocation of loan funds for the rehabilitation of older residential dwellings. Inherent to the rehabilitation process is the intent that the rehabilitated dwelling be made energy efficient. One of the program objectives states "Energy conservation measures in rehabilitation work will be encouraged to reduce

energy cost for the borrowers". These Guidelines were amended in 1984.

III. Residential Land Use Policies are intended to govern the development, rehabilitation, safety and intensity of residential properties. The City has implemented this intent with:

- A. Zoning Ordinance - The recently revised Zoning Ordinance seeks to encourage the most appropriate use of the land within the City, while preserving the character of established residential neighborhoods and protecting their associated property values. Revisions to the Ordinance were adopted in 1984.
- B. Numerous neighborhood rehabilitation programs have been approved by City Council and the Planning Commission that are intended to revive declining neighborhoods and restore many historically significant buildings within the City of Wilmington. They are:
  - 1. Brooklyn Neighborhood Strategy Area Plan - An action plan for the preservation of a declining inner city neighborhood. (Adopted July 26, 1983)
  - 2. Hemenway Neighborhood Plan - A plan of improvements to preserve and restore an historic inner-city neighborhood within the National Register Area of the City of Wilmington. (Adopted April 3, 1985)
  - 3. Lake Village and Riverside Apartments - Both developments were built to house workers during the Second World War and had become dilapidated. Authorization by City Council to apply for financial assistance and to approve tax-exempt financing made it possible to rehabilitate these units and retain them as affordable housing for moderate and low income families. The Lake Village project was authorized on April 27, 1982, and the Riverside project was authorized on July 26, 1983.

IV. Commercial Land Use Policies are intended to regulate and control commercial development in a manner that encourages growth in specific areas and discourages strip development or encroachment into residential neighborhoods.

The new Zoning Ordinance provides specifically for the grouping of commercial development into regional, community and neighborhood centers. Commercial uses are not allowed to encroach into non-commercial areas and buffering is provided where commercial uses adjoin

residential uses. The Zoning Ordinance was adopted in 1984.

- V. Industrial Land Use Policies are intended to encourage the clustering of industry into industrial parks and on land suited for the activities associated particular industrial operations, to discourage any hazard or nuisance resulting from industrial activity that may negatively impact surrounding uses, and to encourage public involvement in the siting of industrial plants.
- VI. Transportation, Communication and Utilities Land Use Policies intend that transportation, communication or utility facilities be located so as to not pose a hazard or threat to surrounding land uses. These policies also support bikeway facilities and ride sharing programs as energy efficient alternatives to the automobile, and supports improved coordination between the land, water and air modes of transportation.
  - A. On March 23, 1982 the City Council accepted the Bicycle Facilities Plan and also passed a resolution establishing the Bicycle Advisory Committee to:
    - 1. Improve bicycle education program
    - 2. Support a state sponsored bicycle enforcement program for New Hanover County
    - 3. Develop and present ideas, projects and plans to promote area bicycle safety.
  - B. On April 12, 1983 the City Council approved a revised Memorandum of Understanding between the City of Wilmington, Town of Wrightsville Beach, Belville, Brunswick County, New Hanover County and the North Carolina Department of Transportation which provides for coordinated planning of transportation facilities through the Transportation Advisory Committee.
  - C. On May 15, 1986 the Transportation Advisory Committee adopted the Wilmington Urbanized Area Transportation Improvement Program for highways, mass transit, bicycles and the Airport.
- VII. Recreation and Open Space Policies direct City of Wilmington to provide and maintain recreational facilities and to preserve natural recreational facilities.
  - A. The Riverfront Plan (adopted in 1982) recommended the development of a Recreational Boat Launch, Water Street Plaza Park, Riverfront Walkway and Downtown Area Marina. The plan provides for

recreational facilities around downtown Wilmington's scenic riverfront.

- B. The Riverwalk Improvement Plan (adopted in 1984) recommends building a continuous walkway, linking public and private development along the downtown riverfront area.
- C. Construction of a Municipal Boat Landing facility at the intersection of Castle and Water Streets occurred during 1985 and early 1986, improving water access for residents and visitors.
- D. The City of Wilmington achieved Certified Local Government Status under the U.S. Park Service requirements on March 18, 1986. This designation allows the City a relatively high degree of local autonomy in administering State and Federal recreation grants, as well as giving the City a competitive advantage in obtaining such grants.

VIII. Historic and Archaeological Resource Policies are intended to provide for the preservation and restoration of Historic Wilmington, allowing for versatility of use as long as the historic character of the area is promoted.

- A. The Planning Commission and City Council have taken numerous actions to promote restoration of historic structures and neighborhoods. These are:
  - 1. Certification of the Hemenway Neighborhood Conservation Area (an historic inner-city neighborhood). This April 3, 1985 plan recommends physical improvements, service improvements, neighborhood self help projects, and housing improvements.
  - 2. Certification of the Downtown Redevelopment Area. Establishes a non-residential redevelopment plan for Wilmington's downtown, recommending improvements to include the area's Central Business District, Commercial Services District and Light Manufacturing District.
  - 3. Authorization to apply for a grant to fund an Architectural Inventory of the Historic District Area. This action was taken on May 25, 1982.

IX. Public Participation Policies promote the involvement of the public in the activity of City government by encouraging attendance at open meetings and by scheduling special meetings for public education and participation when necessary. The City has implemented these policies through:

New Hanover County  
Implementation Scorecard

The 1981 Policies for Growth and Development established policy statements intended to guide decisions concerning the physical development of New Hanover County. The following outline summarizes those policies under specific policy headings and describes actions taken by New Hanover County over the past five years to implement the policies.

Economic and Community Development

- I. Economic Development Policies - Actions taken by the County to implement Economic and Community Development Policies 1.1(1)-(9) include the following:
  - A. Obtained CDBG grant of \$750,000 to aid in the siting of Amhoist Company in Wilmington.
  - B. Established strong program in tourism development including:
    1. Adoption of the Room Occupancy Tax to fund tourism promotion and erosion control efforts.
    2. Established New Hanover Convention and Visitors Bureau.
    3. Funded tourism marketing and development study.
  - C. Maintenance of adequate areas of vacant commercially and industrially suitable land.
  - D. Provision of census and other marketing information to industry.
  - E. Obtained grant for sewer provision in the Seagate area.
  - F. Prepared grant applications for housing rehabilitation and sewer provision in Phase One of the County Sewer Plan.
  - G. Provision of industrial zoning along the rivers.
  - H. Provision of support for airport planning.
  - I. Provision of commercial and industrial land uses along the I-40 corridor.
  - J. Provision of support for the Wilmington Thoroughfare Plan through subdivision review and zoning decisions.
  - K. Provision of financial support to Cape Fear Technical Institute and its training program.

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  - B. Established strong program in tourism development including:
    1. Adoption of the Room Occupancy Tax to fund tourism promotion and erosion control efforts.
    2. Established Wilmington/New Hanover Visitors and Meeting Council.
    3. Funded tourism marketing and development study.
  - C. Maintenance of adequate areas of vacant commercially and industrially suitable land.
  - D. Provision of census and other marketing information to industry.
  - E. Obtained grant for sewer provision in the Seagate area.
  - F. Prepared grant applications for housing rehabilitation and sewer provision in Phase One of the County Sewer Plan.
  - G. Provision of industrial zoning along the rivers.
  - H. Provision of support for airport planning.
  - I. Provision of commercial and industrial land uses along the I-40 corridor.
  - J. Provision of support for the Wilmington Thoroughfare Plan through subdivision review and zoning decisions.
  - K. Provision of financial support to Cape Fear Technical Institute and its training program.

- L. Provision of support for the Urban Service Area as means of controlling urban sprawl and reducing living costs.
  - M. Examination of impacts of railway closings.
- II. Economic Efficiency/Energy Conservation Policies - Action taken by the County to implement Economic Efficiency/Energy Conservation Policies 1.2(1)-(10) include the following:
- A. Developed and supported Urban Services Area concept, including:
    - 1. Determined Urban Services Area boundary based on planned phasing of urban services.
    - 2. Requirement of 2.5 units/acre maximum density outside Urban Services Area boundary.
    - 3. Provision of density bonuses for Planned Developments within the Urban Services Area.
  - B. Give density bonus for use of energy conservation and alternative energy systems in Planned Developments.
  - C. Created the County's incinerator system for the sale of energy from the burning of trash.
  - D. Developed Capital Improvements Program based on Urban Services Area.
- III. Residential Land Use Policies - Actions taken by the County to implement Residential Land Use Policies 1.31(1)-(4) include the following:
- A. Permit multi-family housing by right in four of five residential districts.
  - B. Allow manufactured housing by right or by special use permit.
  - C. Acquired grant for sewer system in Seagate area.
  - D. Application for CDBG housing rehabilitation funds.
  - E. Maintenance of zoning buffers for office and institutional and neighborhood commercial districts around residential areas.
  - F. Permit only low-density residential development in most floodplain areas.
  - G. Require hurricane evacuation planning for vulnerable subdivisions.

- H. Developed inventory of historical and archaeological sites in County and incorporated means for their protection into the Zoning Ordinance.
  - I. Drafted and presented Special Use Permit requirements for hazardous waste facilities.
  - J. Prepared Hurricane Hazard Evacuation Plan
- IV. Office and Institutional Land Use Policies - Actions taken by the County to implement Office and Institutional Land Use Policies 1.34(1)-(3) include the following:
- A. Developed the Office and Institutional Zoning District.
  - B. Recognition of the important future of office and institutional uses in the County's economy.
  - C. Supported the development of free trade zones to attract foreign business.
- V. Commercial Land Use Policies - Actions taken by the County to implement Commercial Land Use Policies 1.33(1)-(2):
- A. Established Shopping Center, Highway Business, Neighborhood Business, and Planned Development zoning districts to accommodate various commercial uses.
  - B. Establishment of landscaping and buffer strips requirements for commercial uses.
  - C. Provision marketing information for businesses wishing to expand or to locate in the County.
- VI. Industrial Land Use Policies - Actions taken by the County to implement Industrial Land Use Policies 1.34(1)-(3) include the following:
- A. Maintenance of adequate areas of industrially-zoned land along the rivers, major highways, and railways.
  - B. Provision of support for the Committee of 100 and other marketing organizations.
  - C. Established the Airport Industrial Park.
  - D. Obtained CDBG funds for Amhoist.
  - E. Zoned Castle Hayne area in effort to protect County's aquifer system.

VII. Transportation, Communication and Utilities Land Use Policies - Actions taken by the County to implement Transportation, Communications, and Utilities Land Use Policies 1.35(1)-(6):

- A. Maintenance of low density residential zoning around Airport.
- B. Participation in the development and support of the Wilmington Area Thoroughfare Plan.
- C. Classified streets in County as means to review and regulate development.
- D. Required bike path for Landfall Planned Development.
- E. Approved Bike Plan.

VIII. Recreation and Open Space Policies - Actions taken by the County to implement Recreation and Open Space Policies 1.36(1)-(4) include the following:

- A. Acquired several shorefront access grants from the State and initiated the improvement of public water access.
- B. Prepared park facility impact fee requirement for new subdivision development.
- C. Prepared draft legislation establishing an excise tax on real property sales, for use for water access and other uses.
- D. Require waterfront access for subdivisions on barrier islands.
- E. Prepared Public Water Access Plan for New Hanover County.
- F. Established open space requirement for high density development and for planned developments.

IX. Estuarine Areas of Environmental Concern Policies - The County has taken the following actions to implement Estuarine System Areas of Environmental Concerns (AECs) Policies 2.3(1)-(4):

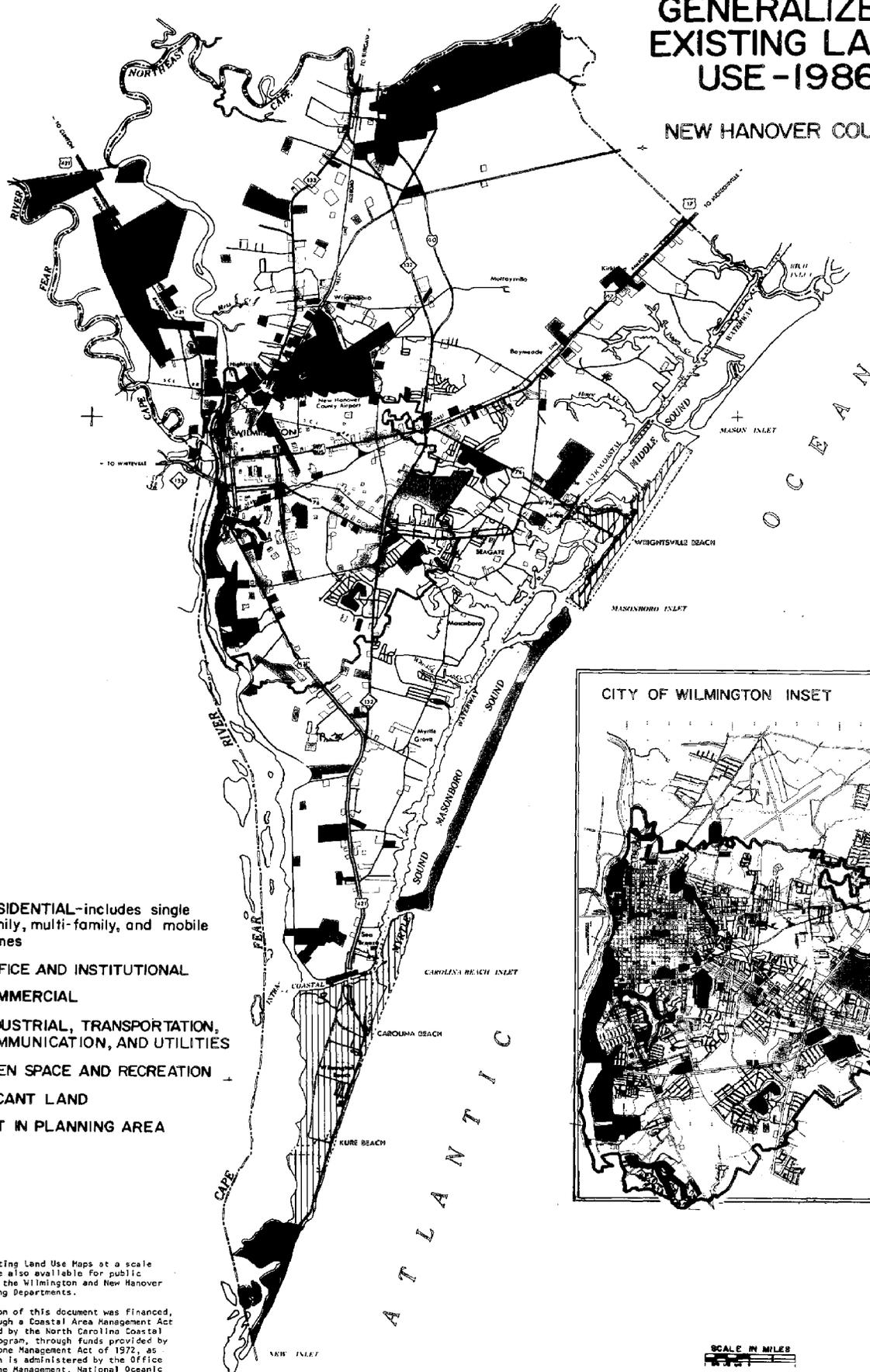
- A. Established drainage, buffer, and natural area preservation requirements for wetlands in the Conservation Overlay District.
- B. Coordination of County Health Department and U.S. Soil Conservation Service review of subdivisions.

- C. Established regulations for floating homes and marinas.
  - D. Adopted County-Wide Sewer Plan and initiated construction of Phase One of this sewer system.
  - E. Established policies and documentation supporting the development of a County drainage ordinance.
- X. Ocean Hazard Areas of Environmental Concern Policies - The County has taken the following actions to implement Policies 2.2(1)-(3) concerning Ocean Hazard AEC's:
- A. Prepared a Hurricane Hazard Mitigation Plan.
  - B. Adopted room occupancy tax to aid in the funding of beach renourishment.
  - C. Provision of supporting for the Estuarine Sanctuaries Program in the acquisition of Masonboro Island.
  - D. Provision of only low density residential development in the ocean hazards areas.
- XI. Other Natural and Man-Made Hazards/Development limitations Policies - The County has taken the following actions to implement Policies 2.3(1)-(5) concerning Other Natural and Man-made Hazards/Development Limitations:
- A. Examination of the incidence of Class IV soils and floodplain as major determinants in reviewing subdivisions and establishing allowable density.
  - B. Established a County Department of Emergency Services to support planning for hazardous waste transportation and handling.
- XII. Groundwater Policies - The County has taken the following actions to implement Groundwater Policies 2.4(1)-(2):
- A. Established zoning in Castle Hayne area to help protect aquifer systems.
  - B. Published New Hanover County Aquifer Management Program.
- XIII. Historic and Archaeological Resource Policies - The County has taken the following actions to implement Policies 2.5(1)-(6) concerning Historic and Archaeological Resources:

- A. Developed inventory of historical structures and archaeological sites in the County.
  - B. Established Conservation Overlay District as a means to protect important sites.
  - C. Conducted tourism development study of County.
- XIV. Resource Production Policies - The County has taken the following actions to implement Resource Production Policies 3.1-3.4.
- A. Analyzed and presented farmland preservation alternatives in workpaper.
  - B. Inventoried significant farmland in County.
  - C. Provision of industrial zoning for quarry operation.
  - D. Require stringent performance standards in Conservation Overlay District for developments affecting Primary Nursery Areas.
  - E. Adoption of an Off-Road Vehicle Ordinance that restricts vehicles from being operated on dune areas in certain parts of the County including Masonboro Island.
- XV. Public Participation Policies - The County has taken the following actions to implement Policies 4.1(1)-(2) concerning Public Participation:
- A. Advertised and held public hearings for rezoning cases.
  - B. Utilized direct mailings to interested parties for controversial issues.
  - C. Held evening meetings for public convenience.
  - D. Made presentation to different groups and organizations.
  - E. Held Land Use Issues Week for the ongoing Land Use Plan Update.

# GENERALIZED EXISTING LAND USE - 1986

NEW HANOVER COUNTY



- RESIDENTIAL—includes single family, multi-family, and mobile homes
- OFFICE AND INSTITUTIONAL
- COMMERCIAL
- INDUSTRIAL, TRANSPORTATION, COMMUNICATION, AND UTILITIES
- OPEN SPACE AND RECREATION
- VACANT LAND
- NOT IN PLANNING AREA



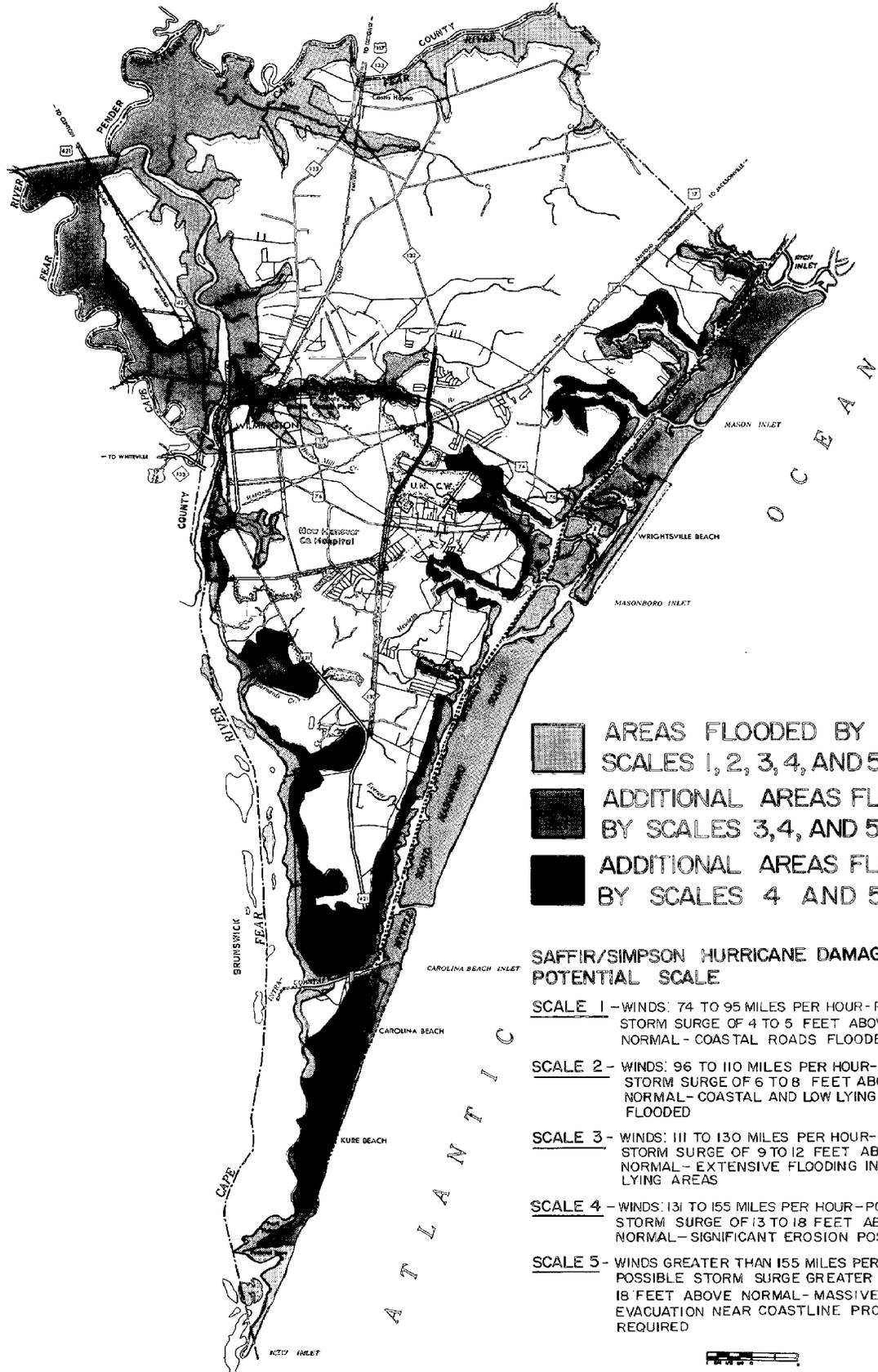
Detailed Existing Land Use Maps at a scale of 1"=400' are also available for public inspection at the Wilmington and New Hanover County Planning Departments.

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SCALE IN MILES



# POTENTIAL HURRICANE FLOODING IN NEW HANOVER COUNTY



-  AREAS FLOODED BY SCALES 1, 2, 3, 4, AND 5
-  ADDITIONAL AREAS FLOODED BY SCALES 3, 4, AND 5
-  ADDITIONAL AREAS FLOODED BY SCALES 4 AND 5

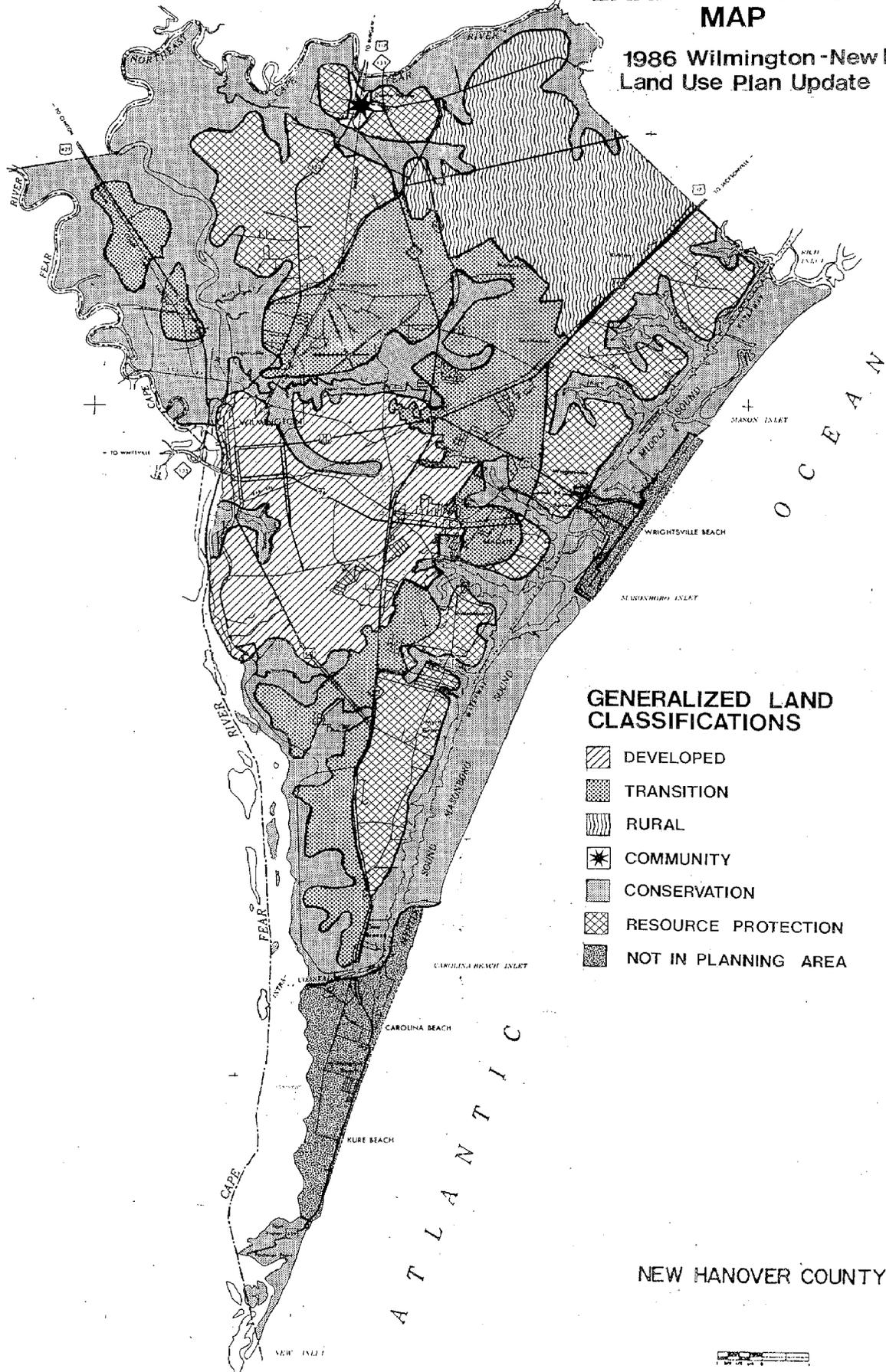
## SAFFIR/SIMPSON HURRICANE DAMAGE POTENTIAL SCALE

- SCALE 1** - WINDS: 74 TO 95 MILES PER HOUR - POSSIBLE STORM SURGE OF 4 TO 5 FEET ABOVE NORMAL - COASTAL ROADS FLOODED
- SCALE 2** - WINDS: 96 TO 110 MILES PER HOUR - POSSIBLE STORM SURGE OF 6 TO 8 FEET ABOVE NORMAL - COASTAL AND LOW LYING ROADS FLOODED
- SCALE 3** - WINDS: 111 TO 130 MILES PER HOUR - POSSIBLE STORM SURGE OF 9 TO 12 FEET ABOVE NORMAL - EXTENSIVE FLOODING IN LOW LYING AREAS
- SCALE 4** - WINDS: 131 TO 155 MILES PER HOUR - POSSIBLE STORM SURGE OF 13 TO 18 FEET ABOVE NORMAL - SIGNIFICANT EROSION POSSIBLE
- SCALE 5** - WINDS GREATER THAN 155 MILES PER HOUR - POSSIBLE STORM SURGE GREATER THAN 18 FEET ABOVE NORMAL - MASSIVE EVACUATION NEAR COASTLINE PROBABLY REQUIRED



# LAND CLASSIFICATION MAP

1986 Wilmington - New Hanover  
Land Use Plan Update



## GENERALIZED LAND CLASSIFICATIONS

-  DEVELOPED
-  TRANSITION
-  RURAL
-  COMMUNITY
-  CONSERVATION
-  RESOURCE PROTECTION
-  NOT IN PLANNING AREA

NEW HANOVER COUNTY

