

Carolina Coastal Zone Management Program

LAND USE PLAN UPDATE

PREPARED FOR:

THE TOWN OF CASWELL BEACH, NC

COASTAL ZONE
INFORMATION CENTER

BY:

SATILLA PLANNING
PLANNERS □ LANDSCAPE ARCHITECTS

Adopted November 14, 1985

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LAND USE PLAN UPDATE

Caswell Beach, North Carolina

U. S. DEPARTMENT OF COMMERCE NOAA
COASTAL SERVICES CENTER
2234 SOUTH HOPESON AVENUE
CHARLESTON, SC 29405-2413

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SATILLA PLANNING

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ST. MARYS, GEORGIA 31558
912/882-6650**

Adopted: November 14, 1985

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

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INTRODUCTION

The Coastal Area Management Act of 1974 establishes a cooperative program of coastal area management between local governments and the State. Land use planning is intended to be central to the local government's involvement, because it gives local leaders an opportunity to establish and implement policies to guide the development of their community.

The Caswell Beach Land Use Plan is an expression of long range planning goals in which the local government has set forth its major policies concerning desirable future development over the next ten years.

The land use plan is an important policy document at local, regional, state and federal levels. The users, in addition to the Town of Caswell Beach, are regional councils of government, state and federal permitting agencies, and public and private funding and development groups. Implementation of this plan is intended to provide for sound economic development while insuring the protection of natural resources, public health and safety.

Local Government Uses

The plan provides policy guidance for decisions related to overall community development, and provides the basis for land development regulations and capital facilities programming. Planning for the provision of capital intensive services, such as central sewer and water, is aided by the land use plan's identification of likely growth trends and by plan policies which will effect growth.

Local Land Development Uses

Developers and investors (including prospective residents) can use the land use plan as a primary source of information about the community. The plan provides data and analysis on present development patterns, capacity of community facilities, population and growth patterns, and physical limitations, all of which are useful in market analyses and other feasibility studies. The plan also provides the investor with information about the community's preferences for development types, densities, and locations.

Regional Uses

The Caswell Beach Land Use Plan will be used by the Cape Fear Council of Governments for regional planning purposes and in their function as regional clearinghouse (A-95) for state and federal funding programs. Brunswick County is using municipal plans in its jurisdiction in the development of a County-wide land use plan. The local plan indicates to these agencies what types of development the community feels are likely and where the development should take place.

State and Federal Uses

Local land use plans are used in the granting or denial of permits for various developments within the coastal area. State and Federal agencies must ensure their decisions consider the policies and land classification system established by this plan. The Coastal Area Management Act stipulates that no development permit may be issued if the proposed development is inconsistent with the local land use plan. Similarly, decisions related to the use of federal or state funds within the community and projects being undertaken by state and federal agencies themselves must also be consistent with the local plan.

EXISTING CONDITIONS

Data Collection and Analysis

The data collected in this section of the plan is taken from several sources. Land use data was derived based on field surveys conducted by Satilla Planning in September, 1985. Sources for data on community facilities, economic conditions, transportation, environmental constraints include the Brunswick County Planning Department, the U.S. Army Corps of Engineers, the NC Department of Natural Resources and Community Development, the N. C. Department of Transportation, local officials, and personal observations by staff members of Satilla Planning.

The Existing Conditions section of the plan presents brief descriptions of conditions pertinent to land use in Caswell Beach. General section headings include: Existing Land Use, Policy Documents and Land Use Controls, Economic Conditions, Traffic and Parking Conditions, Community Facilities, and Community Design Structure.

Existing Land Use

Caswell Beach is almost entirely low density residential in character. The largest part of the beach strand is devoted to single family residential uses. Existing Land Use is displayed graphically on Map 1. Acreage and housing unit counts are found in Table 1.

Residential

The September, 1984 field survey identified 124 single family dwellings in Caswell Beach occupying 41.8 acres of land in the corporate limits. An additional 93 single family lots are platted. A multi-family complex, Oak Island Beach Villas, consists of 140 units on a 9.2 acre tract. Caswell Dunes, another multi-family complex, is underway on a 45.9 acre tract overlooking Caswell Beach Road and the Atlantic Ocean. The first phase of Caswell Dunes is scheduled to include 144 units.

Existing residential uses comprise 13.6 percent of the land area in the town. When this figure is combined with planned and platted acreage, the percentage increases to 32.1 percent, about one-third of the Town's land area.







The density of existing residential development is quite low compared to other North Carolina beach towns, about 5.2 units per acre. Planned residential development, which includes undeveloped, platted single family lots in addition to the first phase of Caswell Dunes, averages 3.4 dwellings per acre. The density of all existing, platted and planned residential areas would be slightly more than four units per acre, if all of these lands were developed.

Presently, there are 264 dwelling units in the Town of Caswell Beach. Planned residential uses (platted lots and Phase 1 of Caswell Dunes) would double this figure, to 501 dwellings.

CASWELL BEACH, N.C.

EXISTING LAND USE

LEGEND:

-  SINGLE FAMILY RESIDENTIAL
-  MULTI-FAMILY RESIDENTIAL
-  PUBLIC, INSTITUTIONAL & RECREATIONAL
-  COMMERCIAL/RECREATIONAL
-  TRANSPORTATION & UTILITIES
-  VACANT

MAP 1

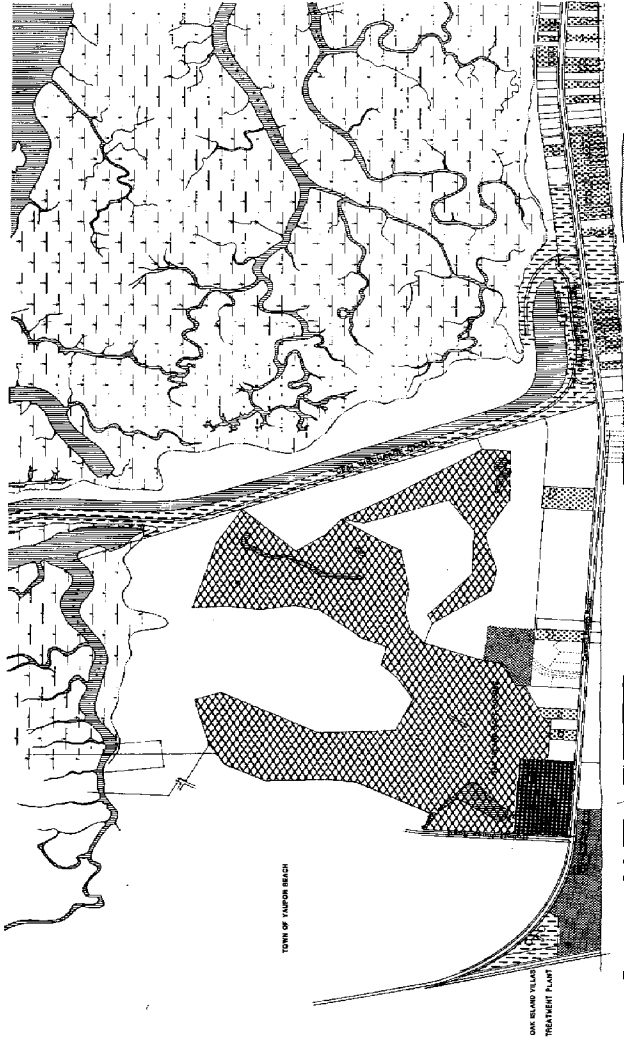
Prepared By:
 SATILLA PLANNING
 200 Ochsama Street
 St. Marys, Georgia

Map Date: JANUARY, 1985

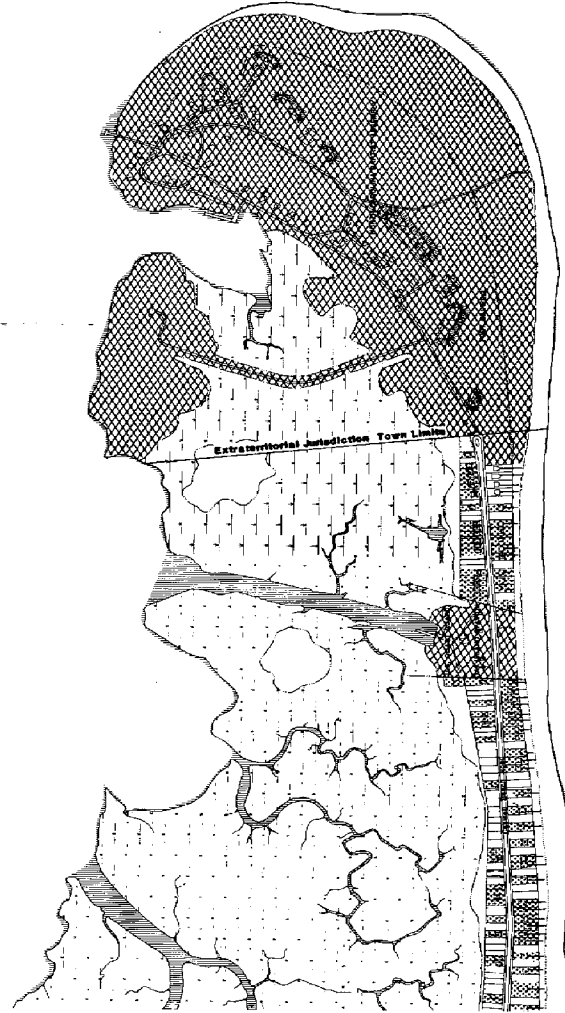


The preparation of this map was financed in part through a grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resource Management, NOAA.

Original Base Map by Duncan Stewart, 12/63



ATLANTIC OCEAN



ATLANTIC OCEAN

TABLE 1. EXISTING LAND USE IN CASWELL BEACH¹

Land Use	Acres	Percent	Units	D.U./acre
Single Family	41.8	(11.1)	124	3.0
Multi-family	9.2	(2.5)	140*	15.2
Existing Residential	51.0	13.6	264	5.2
Planned Single Family (platted lots)	23.5	(6.3)	93	4.0
Planned Multi-family	45.9	(12.2)	144	3.0
Planned Residential	69.4	18.5	237	3.4
Total Residential	120.4	32.1	501	4.1
Recreation/Commercial	107.0	28.5		
Utilities	81.6	21.8		
Recreation/Beach Access	2.0	.5		
Vacant Land	63.9	17.0		
TOTALS	374.9	100.0		
Additional Lands				
U.S. Coast Guard Station	10.7			
Ft. Caswell (N. C. Baptist Assembly)	248.0			

¹ Data based on results of field survey conducted September, 1984, by Satilla Planning.

*Units in Caswell Dunes built or under construction counted as part of planned development.

Recreation/Commercial

This category reflects the 107 acre Oak Island Golf Course, which includes a clubhouse facility in addition to an 18 hole course. The golf course is the largest single use in Caswell Beach, covering some 28.5 percent of the Town's developable land area.

Utilities

Land in this category includes the CP & L outfall canal (79.7 acres) and the Oak Island Beach Villas waste treatment facility (1.9 acres).

Recreation/Beach Access

Two acres are accounted for in this category. Beach access points include several walkways at various points along the beach strand and land leased by the Town from CP & L which is scheduled to be improved as a beach access parking area.

Vacant Land

Map 2, Vacant Land Ownership, displays categories of ownership for significant vacant land in Caswell Beach. The two largest tracts are development company holdings. Construction is underway on a 45.9 acre tract, scheduled for development of 144 multi-family units. A 62 acre tract will be a future phase of the same development, Caswell Dunes. The land is located in and around Oak Island Golf Club. Vacant land accounts for 17 percent of the land area within Caswell Beach.

Additional Lands

Located adjacent to Caswell Beach but distinct from its jurisdiction are the U. S. Coast Guard Station (Oak Island) and the N. C. Baptist Assembly property at Fort Caswell. A \$3 million renovation program was recently announced for the 248 acre Baptist Assembly property, which serves as a summer retreat center for North Carolina Baptists.

Summary: Existing Land Use and Land Use Compatibility

The 1980 Land Use Plan assigned over 2600 acres to Caswell Beach; however, the Town's developable land area of Caswell Beach is roughly 375 acres. Of the developable land, some 83 percent has been developed, planned for development or platted in residential or other uses. At the present time it is expected that almost all of the remaining vacant land will be developed for low density residential uses. No significant land use compatibility problems exist now in Caswell Beach and none are anticipated.

CASWELL BEACH, N.C.

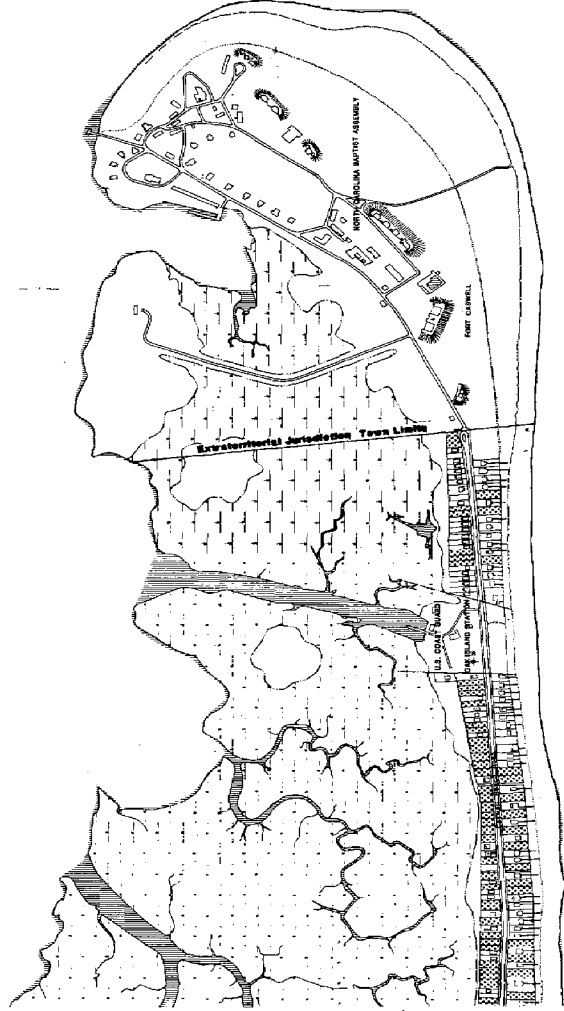
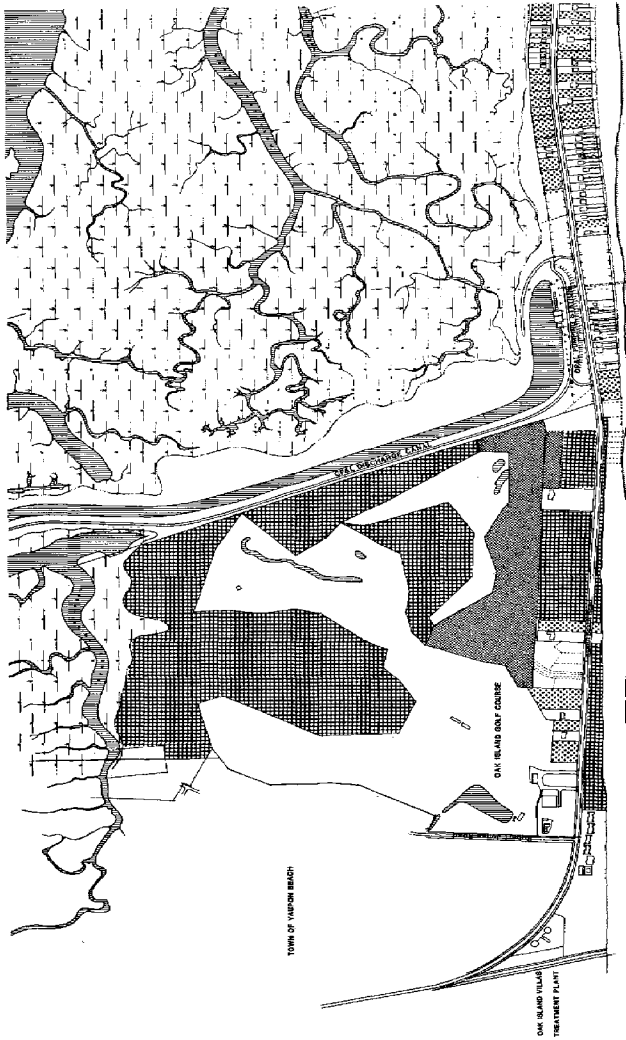
VACANT LAND OWNERSHIP

LEGEND:

INDIVIDUAL OR FAMILY

DEVELOPMENT COMPANY
WITH PRELIMINARY APPROVAL
FROM TOWN

DEVELOPMENT COMPANY



MAP 2

Prepared By:
SATILLA PLANNING
200 Osborne Street
St. Marys, Georgia

Mapping Date: JANUARY, 1985



The preparation of this map was financed in part through a grant awarded by the National Oceanic and Atmospheric Administration, Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resource Management, N.O.A.A.

Original Easement Map by Duncanson Stewart, 12/68

Policy Documents and Land Use Controls

Caswell Beach participates in the CAMA land use planning program and enforces a zoning and planned development ordinance and subdivision regulations. The Town also has a sign ordinance and enforces the North Carolina Building Code and Coastal Area Management Act (CAMA) minor permit regulations. The Town has received preliminary FEMA Flood Insurance rate maps, dated January 22, 1985, which are still being evaluated by the Town. It is not known when these preliminary maps will become final.

CAMA Land Use Plan

The Caswell Beach Land Use Plan (1980) is a policy document containing basic land use planning data and expressions of local policy on issues of local and state concern. The 1985 Caswell Beach Land Use Plan will supercede this plan on adoption.

Zoning Ordinance

The Caswell Beach Zoning Ordinance divides the Town into six zoning districts, of which four are residential in character.

All of the developable land in the Town's business-zoned district has been developed for multi-family uses. The remaining non-residential zone is the recreation/commercial classification applied to the Oak Island Golf Club.

The minimum lot size for single family lots requires 8,000 square feet (R8 classification). The Town has a maximum building height of 35 feet, and requires significant open space (70 percent of lot area) in conjunction with multi-family and planned developments. A provision for planned developments is included in the ordinance, and limits the density of planned developments to no more than four dwellings per acre.

Subdivision Regulations

This ordinance provides for procedures and site requirements for the subdivision and platting of land in Caswell Beach and its extraterritorial area. (The E.T.J. does not include the Baptist Assembly Property.)

Sign Ordinance

This ordinance essentially limits signage in the town to signs for the purpose of advertising real estate for sale or rent.

Economic Conditions

Caswell Beach is primarily a residential community which has a low year round population. The only commercial activity in the community, if it can be considered such, is the 18-hole Oak Island Golf Course. There are no retail commercial establishments in Caswell Beach other than the golf course pro shop.

The nearest commercial and service establishments are located in Yaupon and Long Beaches. A fuller range of retail and service establishments is available in Southport, seven miles away. The nearest urban center is Wilmington, 35 miles distant.

Land values in Caswell Beach are higher, on a comparison basis, than many other portions of Oak Island. The higher real estate values may be attributable to the community's low density and the proximity of most high ground areas to natural amenities such as marsh and oceanfront views.

Traffic and Parking Conditions

Caswell Beach is linked to the mainland via N.C. 133 and Caswell Beach Road. Because of the extreme narrowness of most of the Town, all residential lots access directly onto N.C. 133. Internal circulation patterns have been designed for Oak Island Beach Villas and are planned or under construction for Caswell Dunes.

Average daily traffic loads on Caswell Beach Road average less than 1000 cars per day, according to N. C. Dept. of Transportation figures. Traffic in summer is substantially higher than in other seasons due to the presence of seasonal residents, vacationers, and the use of the N. C. Baptist Assembly property by church groups. However, even if the number of dwelling units in Caswell Beach reaches its potential buildout capacity, the capacity of the existing road should be adequate to handle the expected traffic volumes.

The town's main corridor, Caswell Beach Road, is seriously threatened by erosion. Early in 1985, a severe winter storm caused sections of the road to be undermined for a distance of about 500 feet. The road has been repaired, but the road is still vulnerable to erosion.

Parking conditions in Caswell Beach are generally associated with beach access. In the past, the Town has experienced problems with roadside parking along Caswell Beach Road during the summer tourist months. The addition of a planned 25 car beach access parking area may reduce this problem. Town officials have expressed a desire to place no parking signs along Caswell Beach Road but must secure N. C. Department of Transportation approval to do so.

Community Facilities

Caswell Beach is a small community with a limited year round population and limited services. Services provided directly by the Town include police protection and garbage collection.

Sewer and Water

Caswell Beach has no central sewage treatment plant. Oak Island

Beach Villas operates and maintains a package treatment plant. Single family residences are served by septic tanks, as are units in Caswell Dunes.

The Town's water supply is part of the Brunswick County water system. The County is in the process of forecasting long range population trends on a county-wide basis, partly in order to predict water demand for areas it supplies. These forecasts are discussed under **Population** (page 16 - 18).

Police and Fire

The Town of Caswell Beach employs one full time police officer. Fire services are provided by neighboring Yaupon Beach. The Town contributes funds to Yaupon Beach for the provision of fire protection.

Town Government and Administration

The Town Hall is currently housed in Oak Island Beach Villas. The Town employs a Town Clerk. A new Town Hall is scheduled to be built on land adjacent to Oak Island Beach Villas. Under the currently proposed plan, access to the new Town Hall would be possible from both Caswell Beach Road and Robert L. Jones Street. Jones Street, presently an unpaved pedestrian access way and utility easement, would be partially paved to provide access and additional parking spaces.

Recreation and Beach Access

There are currently five beach accessways in Caswell Beach. The Town has recently reached an agreement with Carolina Power & Light to construct a 25 car beach access parking lot on lots on the oceanfront side of the CP & L discharge facility. Spaces for bicycle parking are also planned for the access area.

Additionally, the Town has recently discussed the possibility of placing a bicycle path along the length of Caswell Beach Road with officials at the North Carolina Department of Transportation.

Community Design Structure

The way a person views the town he or she lives in - that is, how it looks and the kinds of feelings it evokes - is a subtle but very important part of a town's liveability. Caswell Beach is arguably one of North Carolina's most attractive beach communities. A curving barrier island strand, it lies at the eastern end of Oak Island, at the mouth of the Cape Fear River. Its ocean views are enhanced by the presence of Bald Head Island to the east; many of its sound views feature the historic community of Southport to the north.

A community's design structure is composed of those physical features which give a town individuality and legibility. Its public image can be traced to a specific mental picture carried by a large number of the town's residents and visitors. Generally speaking, community design is shaped by the following elements:

CASWELL BEACH, N.C.

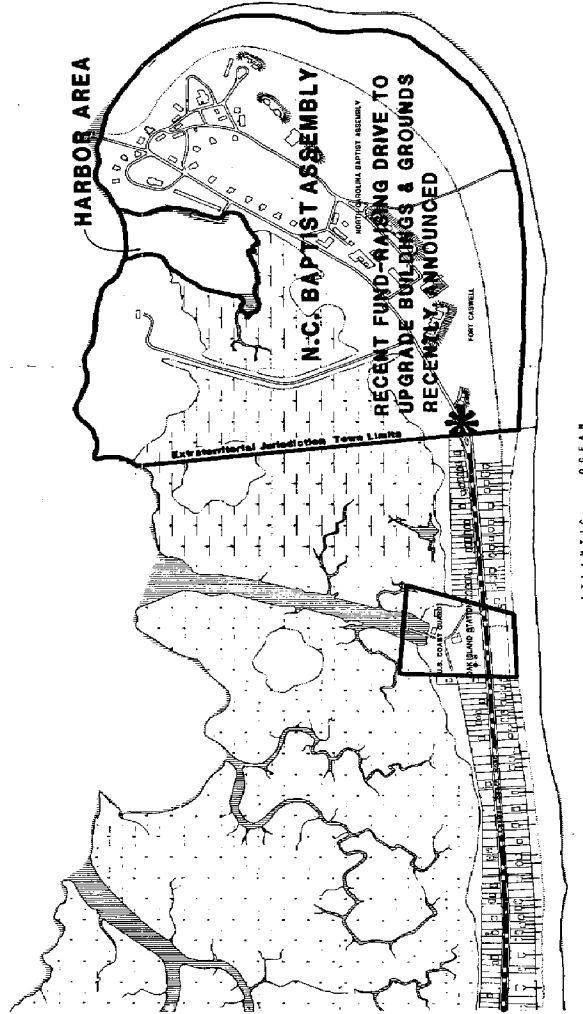
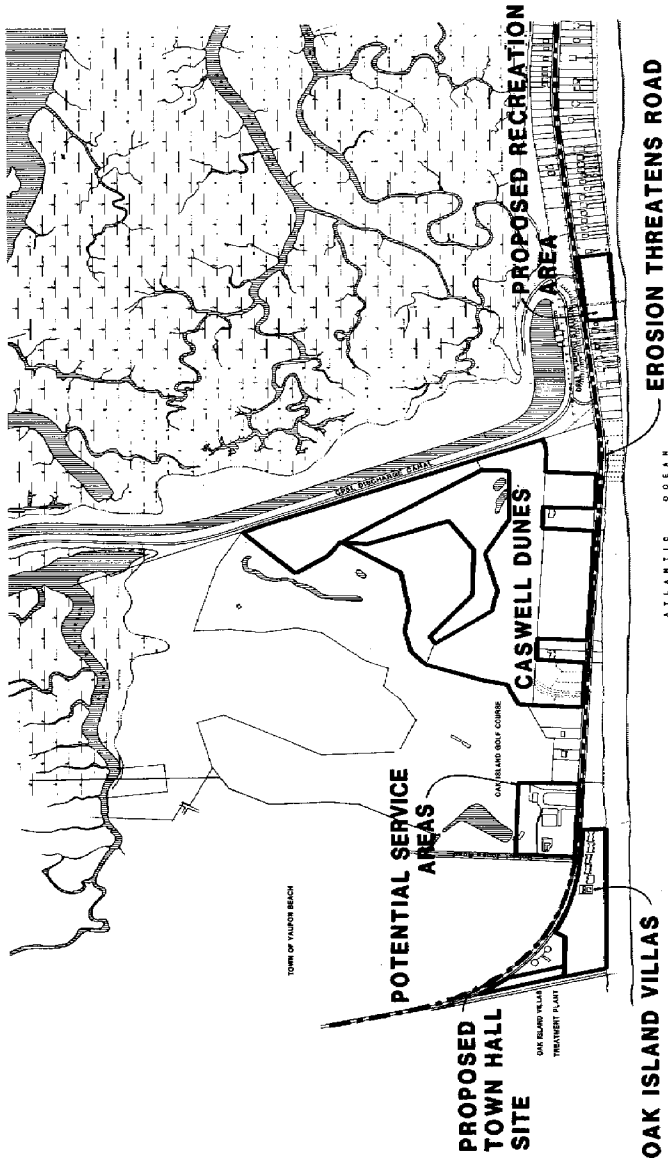
COMMUNITY DESIGN STRUCTURE

LEGEND:

* LANDMARK

□ DISTRICT

--- PATHWAY



MAP 3

Prepared By:
SATILLA PLANNING
200 Osborne Street
St. Marys, Georgia



Mapping Date:
JANUARY, 1985

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Original Base Map by Duncan Stewart, 12/63

- o Pathways. These are the channels along which an observer moves. For many people, these are the predominant elements in their community image. Caswell Beach Road is the key pathway in Caswell Beach.
- o Districts. These are sections of the town with a two-dimensional character, which the observer mentally enters "inside of", and which are recognizable as having some common identifying character. Examples of districts in Caswell Beach include unincorporated areas of activity, such as the U.S. Coast Guard Oak Island Station and the N.C. Baptist Assembly.
- o Landmarks. These are another type of point reference but in this case the observer does not enter within them - they are external. They are usually simply defined physical objects: a building, sign, store or mountain. Some landmarks are visible from only a short distance, while others are some distance away. The gated entrance to the N.C. Baptist Assembly property is such a landmark.

The pattern of these elements provides a framework for organizing and analyzing the form and appearance of the natural and manmade environment. Map 3 (previous page) graphically displays the concept of Community Design Structure in Caswell Beach.

Physical and Environmental Constraints

Physical Limitations to Development

Soils

Most residential dwellings in Caswell Beach are served by septic tanks. Because of the proximity of most developable lands to fragile areas such as wetlands and surface waters, soil suitability for septic tanks is of concern in Caswell Beach.

The 1980 Land Use Plan Update contained an extensive soil analysis for Caswell Beach. Of the developed and developable land within Caswell Beach, almost all soils were judged to have only slight limitations for septic tank suitability. The only developable area with limitations in the moderate category was a portion of the Oak Island Beach Villas property. Oak Island Beach Villas is served by a package sewage treatment plant.

Soils in Caswell Beach were analyzed according to their development suitability for five indicators:

- o depth of seasonal high water table
- o drainage conditions
- o bearing capacity
- o septic tank capability
- o local roads and streets

Based on these five indicators, soils have been classified in one of four categories:

- o suitable
- o moderately suitable, some drainage needed
- o marginally suitable if drained
- o highly unsuitable, flooding common

Soils classified as suitable have slight limitations for all of the development indicators and generally are excessively well drained. Soils in the suitable category include:

- o Kureb fine sand
- o Wando fine sand
- o Newhan fine sand

Most soils in the developed and developable areas of Caswell Beach are classified suitable.

Soils classified as moderate include the Newhan - Corolla complex. These soils are generally found in only one area in Caswell Beach, in the vicinity of Oak Island Beach Villas.

Soils in the marginally suitable category include two categories of manmade soils and one soil classification with a seasonally high water table requiring extensive drainage activity for urban use. Soils in the marginally suitable category include:

- o Leon fine sand
- o Dredge spoil
- o Madeland

Two distinct types of soils in Caswell Beach fall into the unsuitable category. Accounted for here are soils associated with the beach and dune area and soils associated with wetlands and marshes. Soils in the unsuitable category include:

- o Beach - Foredune association
- o Bohicket soils

Potable Water Supply

Caswell Beach is served by the Brunswick County water system, which draws potable water from wells located in rural, inland areas of the County. It is unlikely that activities in Caswell Beach can effect the potable water supply and recharge of Brunswick County well fields.

Hazard Areas

Hurricane Hazard Areas

In 1983, the North Carolina Coastal Resources Commission adopted rules for hurricane hazard planning for all coastal communities. One of the first requirements in planning for storm hazards is the identification of hazard areas and those structures at risk within them. As part

of the hurricane guidelines, classifications for hazard areas were defined as follows:

Severity Rank 1: Ocean Erodible AEC's, Inlet Hazard AEC's, and Estuarine Shoreline AEC's

Severity Rank 2: Federal Emergency Management Administration (FEMA) V-zones and Coastal Wetlands AEC's

Severity Rank 3: FEMA A-zones

Severity Rank 4: Rest of community

Caswell Beach is in the emergency phase of the Flood Insurance Program but has received preliminary Flood Insurance Rate Maps. These maps have not as yet been adopted by the Town; however, a hazard assessment based on the preliminary maps is given below. Flood Hazard "A" and "V" zones, as indicated on the Town's preliminary FIRM, are shown on Map 4.

Hazard Area 1: These areas are potentially subject to erosion and scour, wave action and battering, flooding and high winds in hurricane or tropical storm conditions.

In Caswell Beach, only those structures located within the Ocean Erodible AEC fall into this category. A small number (4) of single family dwellings were counted in this category as well as portions of Caswell Beach Road. Portions of Caswell Beach Road and these structures classified in this category are located on the oceanfront in the vicinity of the CP & L outfall.

The economic implications of structures at risk can be determined by estimating reconstruction costs at current prices. For single family dwellings, reconstruction costs can be estimated on the basis of average square footage times the number of units at risk times \$ 60 per square foot. If houses average 1700 square feet in size, the replacement cost for single family structures at risk in Hazard Area 1 would be \$ 408,000.

Hazard Area 2: This category includes coastal wetlands and FEMA V-zones. Much of the development along Caswell Beach Road falls into this category. The actual number of dwelling units located in this hazard area are:

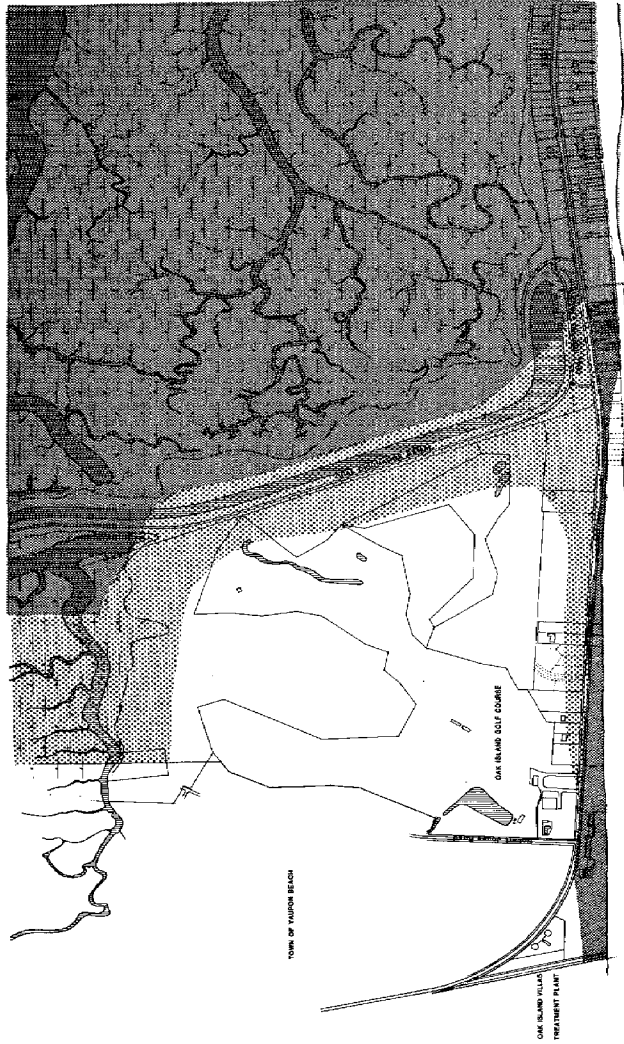
Single Family Residential:	114
Multi-family Residential	70

Using the same methodology to calculate the value of single family dwellings at risk as was used for Hazard Area 1, the replacement cost for single family dwellings in Hazard Area 2 is \$ 11.6 million. If the replacement cost of multi-family units is estimated at \$ 90,000 (present retail value), the value of multi-family structures at risk in Hazard Area 2 is \$ 6.3 million.

Hazard Area 3: This category includes FEMA A-zones. Properties in such hazard areas are subject to flooding and high winds during hurricane or

CASWELL BEACH, N.C.

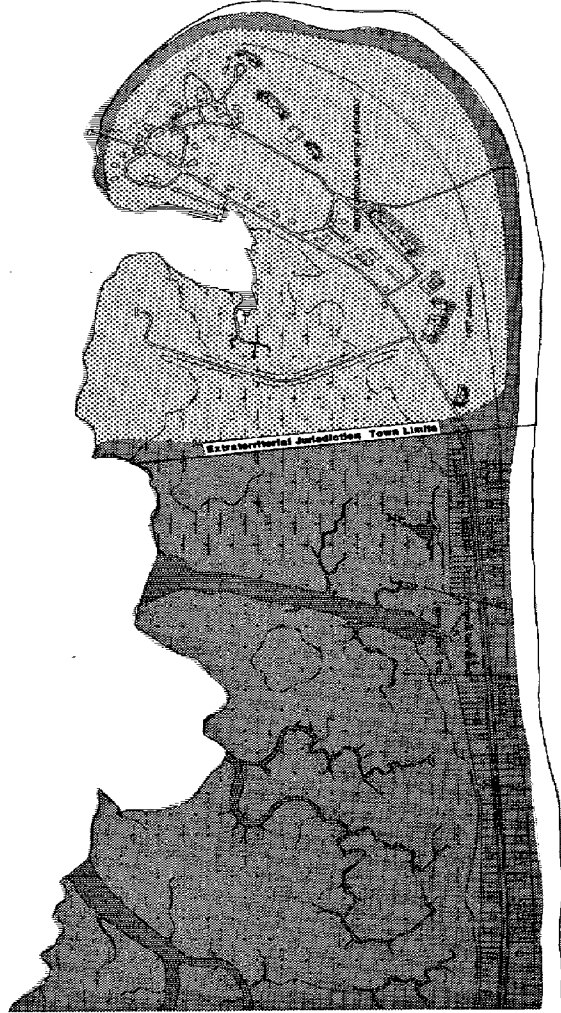
FLOOD HAZARD MAP



LEGEND:

-  FLOOD HAZARD AREAS ("V" ZONES)
-  FLOOD HAZARD AREAS
100 YEAR FLOOD PLAIN ("A" ZONES)


This Map is Based on the Town Flood Insurance Rate Map
Dated 1-22-85, Which is Currently Under Review



MAP 4

Prepared by:	SATILLA PLANNING 200 Osborne Street St. Marys, Georgia
Mapping Date:	JANUARY, 1985

NORTH



The preparation of this map was financed in part through a grant provided by the North Carolina Coastal Management Program, through funds provided by the Coastal Zone Management Act of 1972, as amended, which is administered by the Office of Ocean and Coastal Resource Management, N.C.A.A.

Original Base Map by Duncan Stewart, 12/83

tropical storm conditions. The following uses were found in Hazard Area 3:

Multi-family Residential: 46

The replacement cost of structures in Hazard Area 3, using the same methodology as applied for other hazard areas, is \$ 4.1 million.

Although much existing residential development in Caswell Beach falls into hazard areas, almost all new development in Caswell Beach will be concentrated in areas above the 100 year flood plain and out of Ocean Hazard Areas. The planned and under construction Caswell Dunes development lies almost entirely in B-zone areas.

Fragile Areas

Areas of Environmental Concern

Areas of Environmental Concern (AEC's) are sensitive environmental and cultural areas protected by the Coastal Area Management Act (CAMA). General categories of these areas are identified through state guidelines according to the Administrative Procedures Act, as administered by the Division of Coastal Management. Special areas of local or regional environmental or cultural significance can be nominated as AEC's by individuals, groups or governing bodies.

AEC's lying within Caswell Beach's jurisdiction include Coastal Wetlands, Estuarine Waters, Estuarine Shorelines, Public Trust Areas, Ocean Erodible Areas, High Hazard Flood Areas, and Natural and Cultural Resource Areas.

Coastal Wetlands are defined generally as any marshland subject to regular or occasional flooding by tides. These wetlands are the breeding and nursery grounds for fish and shellfish species which make up over ninety (90) percent of North Carolina's commercial catch.

Estuarine Waters are defined as all waters of the Atlantic Ocean within the state boundaries and all waters of the bays, sounds, rivers and tributaries seaward to the dividing line between coastal fishing waters and inland fishing waters, as defined by North Carolina law. Their productive significance is similar to that of coastal wetlands. Additional benefits include the stimulation of the coastal economy through operations required to serve coastally-oriented commercial and sporting industries.

Estuarine Shorelines are non-ocean shorelines which are especially vulnerable to erosion and flooding. They extend landward a distance of 75 feet from the mean high water level along all estuarine waters.

The significance of estuarine shorelines lies in their proximity to sensitive coastal systems. Estuarine shorelines are also subject in many areas to intense development activities which may have a potentially detrimental impact on those sensitive systems.

Public Trust Areas can be generally defined as all estuarine water areas and all lands under such waters, and may also include artificially created bodies of water (and the lands underneath) to which the public has rights of access and/or navigation.

Ocean Erodible Areas are areas where there exists a substantial possibility of excessive erosion and significant shoreline fluctuation. The seaward boundary of Ocean Erodible areas is the mean low water line. The landward boundary is variable and is determined on a site to site basis, calculated from the first line of stable vegetation to a recession line based on past erosion rates for the area as determined by the Coastal Resources Commission.

High Hazard Flood Areas are those areas subject to high velocity waters in a storm having a one percent chance of being equaled or exceeded in any given year. These areas correspond with "V-zone" areas mapped on flood insurance rate maps prepared by the Federal Insurance Administration, U. S. Dept. of Housing and Urban Development.

Natural and Cultural Resource Areas are defined as areas containing environmental, natural or cultural resources of more than local significance in which uncontrolled or incompatible development could result in major or irreversible damage to natural systems or cultural resources.

GROWTH TRENDS

Population

The 1980 Census found that Caswell Beach had a permanent population of 110 persons. This represented a tripling of year round population since 1970 (year round 1970 population: 28); however the actual numerical increase for the decade is still very low.

The N. C. Office of State Budget and Management published an estimate of Caswell Beach's July 1982 permanent population in late 1983. The 1982 estimate was 127 persons.

Of more utility in a beach community like Caswell Beach are peak seasonal population estimates. The Brunswick County Planning Department has prepared draft peak seasonal population estimates for all of its municipalities for summer, 1984. These figures are subject to refinement. The preliminary figures for Caswell Beach are as follows:

Seasonal Units	Seasonal Population	Permanent Population	Total Peak Population
87	696	201	897

Data derived from the citizen's survey conducted in conjunction with the citizen participation plan has been analyzed and is used here for comparison with the Brunswick County figures.

The Brunswick County figures reflect two separate calculations: one for year round population, one for seasonal population. Peak seasonal population is the result of adding these totals. The same approach will be used here using data gathered from the survey.

Survey results show that 24 % of responders who indicated they resided in Caswell Beach on a year round or seasonal basis were year round residents. Multiplying the applicable percent figure times the total of number of units in Caswell Beach yields 63 year round dwellings. Multiplying this figure times the average occupancy rate (2.8 persons per dwelling for year round occupancy, as indicated in the survey) results in a year round population estimate of 176, about 12 % lower than the Brunswick County 1984 estimate of 201.

It is possible to estimate peak seasonal population using the same methodology for each group of units (year round: 63; seasonal: 201). In the following chart, each group of units was multiplied times an estimated overall occupancy rate (such as 75 % in the low seasonal estimate), then multiplied times the appropriate dwelling occupancy for each group of units. The occupancy rate used for the moderate estimate was derived by combining average and peak scores for each tenancy group.

Peak Seasonal Population Estimates (1985)

Low (75 % of dwellings occupied (198) times average occupancy rate: 3.45 persons per unit)	684
Moderate (80 % of dwellings occupied (211) times combined average and peak occupancy rates: 5.35 persons per unit)	1,130
High (95 % of dwellings occupied (250) times peak occupancy rates: 7.55 persons per unit)	1,888

An additional factor not accounted for in the peak population estimates is the summertime use of Fort Caswell by church groups. As many as one thousand persons may reside at the Baptist Assembly facility in a given week. While many Fort Caswell users arrive at their destination by bus, a significant amount use personal vehicles, adding a significant transportation impact on Caswell Beach Road.

Because of the present lack of parking facilities at beach access points in Caswell Beach, peak summer day visitorship is low in proportion to other population factors. However, a combination of the potential peak seasonal population, peak Fort Caswell population, and day visitorship could yield a summertime high of nearly 3,000 persons based on the above analysis.

Projected Population

Because Caswell Beach is such a small community, it is difficult to project population over a time frame with any degree of confidence. However, almost all of the community's small land area is either developed, platted or planned. The remaining vacant land is subject to a zoning limitation of four (4) units per acre. It is therefore possible to estimate a build out housing count, which can be used to estimate future population.

Existing and planned dwelling units total 501. The maximum development potential of the remaining vacant land in Caswell Beach is 255 dwellings. Thus, Caswell Beach has a potential housing total of 756 dwellings.

There is no way to accurately estimate when and if these units will be built. However, given past growth trends in Caswell Beach and the relatively small amount of vacant land remaining, a good likelihood exists that most or all of these potential units will be built within the next ten years.

Based on this assumption and using the current year round occupancy rates (24 % of all units at 2.8 persons per dwelling), Caswell Beach's permanent population for 1995 would be 508 persons.

Using the same methodology used in estimating current peak seasonal population, the following projections would result for 1995.

Peak Seasonal Population Projections (1995)

Low (75 % of dwellings occupied (567) times averag occupancy rates: 3.45 persons per unit)	1,958
Moderate (80 % of dwellings occupied (605) times combined average and peak occupancy rates: 5.35 persons per unit)	3,238
High (95 % of dwellings occupied (718) times peak occupancy rates: 7.55 persons per unit)	5,405

Constraints to Development: Impact on Community Facilities

The nearly exponential growth forecast for Caswell Beach over the ten-year planning period will require the Town's continued attention to the provision of necessary municipal services.

Expansion will probably be required in terms of police personnel; the Town's current methods of handling fire protection and building inspections may need to be modified to accommodate greater demands as they arise. The Town's current plans for expanding recreation/beach access facilities and the construction of a new Town Hall are far-sighted and should prove adequate for projected needs during the planning period.

The continued development of the Town will increase the desirability of some sort of centralized sewage treatment system to serve present and future demand. The economic viability of providing this service to the Caswell Beach area depends on whether or not such a system is economically feasible for the larger Oak Island area.

In terms of capacity, Caswell Beach Road (N.C. 133) should be adequate to accommodate average daily traffic (ADT) loads for even the highest projected population levels over the next ten years. The build-out projection of 756 dwellings would result in an ADT load of about one half of N.C. 133's capacity.

POLICY STATEMENTS

The Caswell Beach Board of Commissioners has adopted the following policies for dealing with land use planning issues which will affect the community within the next ten years. These policies establish a systematic basis by which proposed developments will be judged. If a proposed project or development would violate the intent of these policies, action to prevent its construction will be taken by local, state and federal government agencies.

Outline of Policy Statements

1. RESOURCE PROTECTION
 - a. Estuarine System
 - b. Ocean Hazard Areas
 - c. Natural and Cultural Resources
 - d. Storm Water Runoff
 - e. Marina & Floating Home Development
 - f. Development of Sound & Estuarine Islands
 - g. Water Supply Protection
2. PHYSICAL CONSTRAINTS TO DEVELOPMENT
 - a. Septic Tank Suitability
 - b. Package Sewage Treatment Plants
 - c. Storm Drainage
3. RESOURCE PRODUCTION AND MANAGEMENT
 - a. Commercial and Recreational Fisheries
 - b. Off-Road Vehicles
 - c. Residential and Commercial Development
4. PROVISION OF SERVICES TO DEVELOPMENT
 - a. Public Water Supply
 - b. Public Sewerage System
 - c. Solid Waste Disposal
 - d. Rescue Squad and Fire Protection
 - e. Public School system
 - f. Transportation, Roads
 - g. Beach and Water Access
5. ECONOMIC AND COMMUNITY DEVELOPMENT
 - a. Community Development, Residential and Commercial
 - b. Industrial Development
 - c. Commitment to State and Federal Programs
6. GROWTH PATTERNS
 - a. Compact Growth
 - b. Provision of Services
 - c. Population Growth
 - d. Segregation of Existing Land Uses
 - e. Housing and Land Use Development
 - f. Compliance with Official Plans and Ordinances

7. POST DISASTER AND STORM HAZARD MITIGATION PLANNING
8. CONTINUING PUBLIC PARTICIPATION

1. RESOURCE PROTECTION

Caswell Beach will support and enforce through its CAMA permitting capacity the State Policies and permitted uses in the Areas of Environmental Concern (AEC's). The State Policy Statements for AEC's offer protection for Caswell Beach's fragile and significant environmental resources through CAMA permitting procedures. In Accordance with those policies set forth in subchapter 7H of the State CAMA regulations, Caswell Beach adopts the following policies concerning AEC's in its jurisdiction.

- a. The Estuarine System. In recognition of the enormous economic, social, and biological values the estuarine system has for North Carolina, Caswell Beach will promote conservation and management of the estuarine system as a whole, which includes the individual AEC's: coastal wetlands, estuarine waters, public trust areas, and estuarine shorelines.

The management objective for the system shall be to give highest priority to the protection and coordinated management of all the elements as an interrelated group of AEC's, so as to safeguard and perpetuate their biological, social, economic, and aesthetic values, and to minimize the likelihood of significant loss of private property and public resources.

In general, permitted land uses in the coastal wetlands, estuarine waters, and public trust areas shall be those which are water dependent. Examples of such uses may include: utility easements, docks, boat ramps, dredging, bridges and bridge approaches, revetments, bulkheads, culverts, groins, navigational aids, mooring pilings, navigational channels, simple access channels, and drainage ditches.

Land uses that are not water dependent shall not be permitted in coastal wetlands and public trust areas. Examples of uses that are not water dependent may include: restaurants, residences, apartments, motels, hotels, trailer parks, private roads, factories, and parking lots.

Specific policies regarding the individual AEC's of the estuarine system are stated below. In every instance the particular location, use, and design characteristics shall be in accord with the general use standards for coastal wetlands, estuarine waters, and public trust areas as stated in subchapter 7H of the State CAMA regulations.

- (1) Coastal Wetlands. Activities in the coastal wetland areas shall be restricted to those which do not significantly affect the unique and delicate balance of this resource. Suitable land uses include those giving highest priority to the protection and management of coastal wetlands, so as to safeguard and perpetuate their biological, social, economic, and aesthetic values to establish a coordinated management system capable of conserving and utilizing coastal wetlands as a natural resource essential to the functioning of the entire estuarine system. Highest priority of use shall be allocated to the conservation of existing coastal wetlands. Second priority shall be given to those uses that require water access and cannot function elsewhere.

Acceptable land uses may include utility easements, fishing piers, and docks. Unacceptable uses may include, but would not be limited to, restaurants, businesses, residences, apartments, motels, hotels, parking lots, private roads, and highways.

- (2) Estuarine Waters. In recognition of the importance of estuarine waters for the fisheries and related industries as well as aesthetics, recreation, and education, Caswell Beach shall promote the conservation and quality of this resource. Activities in the estuarine water areas shall be restricted to those which do not permanently or significantly affect the function, cleanliness, salinity, and circulation of estuarine waters. Suitable land/water uses include those giving highest priority to the conservation and management of these areas so as to safeguard and perpetuate their biological, social, economic, and aesthetic values and to establish a coordinated management system capable of conserving and utilizing estuarine waters in order to maximize their benefits to man and the estuarine system. Highest priority of use shall be allocated to the conservation of estuarine waters and its vital components. Second priority shall be given to uses that require water access and cannot function elsewhere.

Appropriate uses may include simple access channels, structures which prevent erosion, navigation channels, boat docks, marinas, piers, and mooring pilings.

Caswell Beach, in recognition of potential shellfish areas pollution problems which would close these areas to harvesting, supports the construction of waste water collection and treatment facilities.

- (3) Public Trust Areas. In recognition of certain land and water areas in which the public has certain established rights and which also support valuable commercial and

sports fisheries, have aesthetic value, and are resources for economic development, Caswell Beach shall protect these rights and promote the conservation and management of public trust areas. Suitable land/water uses include those which protect public rights for navigation and recreation and those which preserve and manage the public trust areas in order to safeguard and perpetuate their biological, economic, social, and aesthetic value, e.g. dredging, bulkheading, jettying.

In the absence of overriding public benefit, any use which significantly interferes with the public right of navigation or other public trust rights which apply in the area shall not be allowed. Projects which would directly or indirectly block or impair existing navigation channels, increase shoreline erosion, deposit spoils below mean high tide, cause adverse water circulation patterns, violate water quality standards, or cause degradation of shellfish waters will, in general, not be allowed.

Uses that may be allowed in public trust areas shall not be detrimental to the public trust rights and the biological and physical functions of the estuary. Examples of such uses include the development of navigational channels or drainage ditches, the use of bulkheads to prevent erosion, the building of piers, docks, or marinas.

- (4) Estuarine Shoreline. CAMA defines the estuarine shoreline at Caswell Beach as the areas 75 feet landward of the estuarine waters. Caswell Beach recognizes: (1) the close association between estuarine shorelines and adjacent estuarine waters, (2) the influence shoreline development has on the quality of estuarine life, and (3) the damaging processes of shorefront erosion and flooding to which the estuarine shoreline is subject.

Shoreline development may have profound effect on adjacent estuarine waters. For example, effluent from poorly placed or functioning septic systems can pollute shellfish areas which represent much greater economic benefit to the town's citizens than do the residential uses of estuarine shoreline areas. In recognition of this fact, Caswell Beach discourages the use of estuarine shoreline areas for residential purposes where there is a substantial chance of pollution occurring.

The natural process of erosion transforms shoreline areas into public trust areas. It shall be the policy of Caswell Beach to allow this natural process to occur if life or structures are not in jeopardy.

Suitable land uses are those compatible with both the

dynamic nature of estuarine shorelines and the values of the estuarine system.

Residential, recreational, and commercial land uses are all appropriate types of use along the estuarine shoreline provided that:

- (a) a substantial chance of pollution occurring from the development does not exist,
- (b) natural barriers to erosion are preserved and not substantially weakened or eliminated,
- (c) the construction of impervious surfaces and areas not allowing natural drainage is limited to only that necessary to adequately service the development,
- (d) standards of the North Carolina Sedimentation Pollution Control Act 1973, as amended, are met,
- (e) development does not have a significant adverse impact on estuarine resources,
- (f) development does not significantly interfere with existing public rights of access to, or use of, navigable waters public resources.

- b. Ocean Hazard Areas. In recognition of the critical nature of Ocean Hazard Areas due to their special vulnerability to erosion and dynamic processes and their possible danger to life and property because of natural forces, Caswell Beach supports the State Policies for Ocean Hazard Areas in Subchapter 7H of the State CAMA Regulations. The Ocean Hazard Area designation for Caswell Beach includes the AEC's of ocean erodible areas, high hazard flood areas, and inlet hazard areas.

Suitable land uses in Ocean Hazard Areas generally are those which eliminate unreasonable danger to life and property and which achieve a balance between the financial, safety, and social factors involved in hazard area development. Ocean shoreline erosion control activities and dune establishment/stabilization are acceptable types of land uses. Residential, and recreational land uses and parking lots for beach access are also acceptable types of use in Ocean Hazard Areas provided that:

- (1) Setback measurements (this setback applies only to structures with more than 3 dwelling units or 5,000 square feet) begin at the first line of stable vegetation and continue inland to a depth 60 times the average annual rate of erosion. Provided there has been no long term erosion or the rate of erosion is less than two feet per year, this distance is set at 120 feet. In areas where the erosion rate is more

than 3.5 feet per year, the setback line is based on a distance of 30 times the long-term annual erosion rate plus 105 feet. Average annual erosion rates in Caswell Beach are as follows:

- o 5 feet from Robert Jones Drive east to the end of Oak Island Villas.
 - o 3.5 feet from Oak Island Villas east to the C.P.& L. canal/pumping station.
 - o 2 feet from the C.P.& L canal east to the North Carolina Baptist Assembly Grounds.
- (2) Development does not involve the significant removal or relocation of frontal dune sand or vegetation thereon.
 - (3) Development is consistent with minimum lot size and setback requirements established by local regulations.
 - (4) Development implements means and methods to mitigate or minimize adverse impacts of the project.
 - (5) Development of growth-inducing public facilities such as sewers, waterlines, roads, bridges, and erosion control measures occurs only in cases where:
 - (a) national or state interest and public benefits are clearly overriding factors,
 - (b) facilities would not exacerbate existing hazards or damage natural buffers,
 - (c) facilities would be reasonably safe from flood and erosion related damage,
 - (d) facilities do not promote growth and development in Ocean Hazard Areas.
 - (6) Prior to the issuance of any permit for development in the Ocean Hazard AEC's, there shall be a written acknowledgment from the applicant is aware of the risks associated with development in this hazardous area. By granting permits, the Coastal Resources Commission does not guarantee the safety of the liability for damage to the development.
 - (7) Caswell Beach, recognizing that erosion along the beach has caused many problems, supports beach renourishment projects that would allow approved-suitable soils to be taken from the Intracoastal Waterway and inlet dredging operations and placed on designated island beaches area.
 - (8) Caswell Beach has adopted an ordinance to prohibit vehicles in beach and dune areas. One of the intents

of the ordinance is to control erosion.

- (9) Caswell Beach supports the establishment of programs to control littering throughout the town and particularly in Ocean Hazard Areas.

- c. Natural and Cultural Resource Areas. Uncontrolled or incompatible development may result in major or irreversible damage to fragile coastal resource areas which contain environmental, natural, or cultural resources of more than local significance. In recognition of this Caswell Beach will seek to protect such natural systems or cultural resources; scientific, educational, or associative values; and aesthetic qualities.

Individual AEC's included in this general category are: coastal complex natural areas, coastal areas that sustain remnant species, unique coastal geologic formations, significant coastal architectural resources, and significant coastal historic architectural resources. Their description and significance is found in this plan under Fragile Areas.

In general, these resources are noted to be valuable educational, scientific, and aesthetic resources that cannot be duplicated. They may be important components in a natural system or in the broad patterns of history. Their importance serves to distinguish the designated areas as significant in relation to the coastal landscape and historical architectural and archaeological remains in the coastal zone.

In accordance with policies stated in subchapter 7H of the State CAMA regulations, Caswell Beach will support the following actions regarding these irreplaceable resources:

- (1) Protection of unique habitat conditions that are necessary to the continued survival of threatened and endangered native plants and animals and to minimize land use impacts that might jeopardize these conditions.
- (2) Protection of the features of a designated coastal complex natural area in order to safeguard its biological relationships, educational and scientific values, and aesthetic qualities. Specific objectives for each of these functions shall be related to the following policy statements either singly or in combination:
 - (a) To protect the natural conditions or the sites that function as key or unique components of coastal systems. The interactions of various life forms are the foremost concern and include sites that are necessary for the completion of life cycles, areas that function as links to other wildlife areas (wildlife corridors), and localities where the links between biological and physical environments are most fragile.

(b) To protect the identified scientific and educational values and to ensure that the site will be accessible for related study purposes.

(c) To protect the values of the designated coastal complex natural area as expressed by the local government and citizenry. These values should be related to the educational and aesthetic qualities of the feature.

(3) Conservation of coastal archaeological resources of more than local significance to history or prehistory that constitute important scientific sites, or are valuable educational, associative, or aesthetic resources. Specific objectives for each of these functions shall be related to the following policy statements either singly or in combination:

(a) to conserve significant archaeological resources, including their spatial and structural context and characteristics through site preservation or scientific study,

(b) to insure that the designated archaeological resource, or the information contained therein, be preserved for and be accessible to the scientific and educational communities for related study purposes.

(c) to protect the values of the designated archaeological resource as expressed by the local government and citizenry; these values should be related to the educational, associative or aesthetic qualities of the resource.

Development may be permitted in designated fragile coastal natural or cultural resource areas provided that:

(1) The proposed design and location will cause no major or irreversible damage to the stated values of a particular resource. One or more of the following values must be considered depending upon the stated significance of the resource:

(a) Development shall preserve the values of the individual resource as it functions as a critical component of a natural system.

(b) Development shall not adversely affect the values of the resource as a unique scientific, associative, or educational resource.

(c) Development shall be consistent with the

aesthetic values of a resource as identified by the local government and citizenry.

- (2) No reasonable alternative sites are available outside the designated AEC.
- (3) Reasonable mitigation measures have been considered and incorporated into the project plan. These measures shall include consultation with recognized authorities and with the Coastal Resources Commission.
- (4) The project will be of equal or greater public benefit than those benefits lost or damaged through development.

- d. Storm Water Runoff - Uncontrolled development adjacent to coastal waters can pose a serious threat to the estuarine system through the rapid discharge pollutants washed off of impervious surfaces via storm water. Impervious surfaces include streets, parking lots, and rooftops.

Caswell Beach's existing development policies as specified in the Town's zoning ordinance, limit residential development to no more than four dwelling units per acre with a minimum of 70% open space or a maximum of 30% lot coverage. Additionally, all Planned Development applications must include a drainage plan submittal which in turn is reviewed by the Town to insure that impervious surfaces are kept to the minimum required to adequately serve the development and to insure that storm water from large impervious areas is not directly discharged to the estuarine system.

Further, it is the policy of the town to promote the use of best available management practices to minimize the threat of pollution from storm water runoff. This will be accomplished through site plan reviews, as required by the Town's development regulations. Examples of these practices include using pervious or semi-pervious materials, such as turfstone or gravel-run, for driveways and walks, retaining natural vegetation along marsh and waterfront areas to retain its natural filtering properties, and allowing storm water to percolate into the ground rather than discharging it directly to coastal waters.

- e. Marina and Floating Home Development. Marina and associated Floating Home Development can impact surrounding land and water areas in many ways. For example, alteration to natural systems can significantly effect resource production. Recognizing this, the State, U.S. Environmental Protection Agency and the U.S. Army Corps of Engineers have placed extensive limitations on the Alteration of Natural Systems in conjunction with marina development. Caswell Beach's jurisdiction as to marina development lies primarily with its zoning authority. The Caswell Beach zoning ordinance will allow the town to consider location of any proposed marina

facility in conjunction with the location and scale of operation because any marina proposal will require rezoning under the terms of the existing zoning ordinance.

It is the policy of Caswell Beach to consider the appropriateness and desirability of any specific proposal to construct a marina or associated Floating Home development on the basis of impact on neighboring uses including aesthetics, hours of operation; traffic generation including ability of the existing road network to adequately handle peak traffic loads; environmental impacts including water quality and dredge spoil disposal sites; and consistency of the proposal with other policies of the Land Use Plan.

- f. Development of Sound and Estuarine Islands. The only sound and estuarine islands within Caswell Beach's jurisdiction are dredge spoil areas which are controlled by the U.S. government. Therefore, the Town has no policy with respect to the use of these areas beyond other Land Use Plan policies.
- g. Water Supply Protection. The Town's water system is supplied by Brunswick County. The County system draws its supply from the Castle Haynes Aquifer which is recharged on the mainland. Therefore, little or no danger of pollution of the water supply from island development exists.

2. PHYSICAL CONSTRAINTS TO DEVELOPMENT

Caswell Beach adopts the following policies regarding physical constraints to development.

a. Septic Tank Suitability

Septic tanks are allowed in Caswell Beach only in conformity with State Health regulations. Because the town has no direct permitting authority over septic tanks and supports current state policy in this area, a local policy has not been adopted beyond applicable policies contained elsewhere in this plan.

b. Package Sewage Treatment Plants

Caswell Beach may permit the use of private sewage collection and treatment systems if associated development is consistent with the town's development plans and policies; the system meets state and federal permitting requirements; the project will have no adverse impacts beyond its boundaries.

c. Storm Drainage

Growth and development will not be allowed where poor drainage exists unless appropriate corrective improvements are proposed as part of the project. Corrective measures must be proposed by way of a project drainage plan and must

be certified by a State Registered Civil Engineer, Architect or Landscape Architect.

3. RESOURCE PRODUCTION AND MANAGEMENT

Caswell Beach's natural resources play a vital role in its economy. Its waters and beaches are utilized for recreational uses as well as for fishing. Protection of these resources is a prime concern of Caswell Beach. To deal with issues that involve resource production and management, Caswell Beach adopts the following policies:

a. Commercial and Recreational Fisheries

Protection of Coastal and Estuarine Waters is a prime prerequisite to the protection of area fisheries. Habitats for shellfish and finfish in all stages of their life cycle must be preserved in order to maintain fishing as a viable economic and recreational activity. Therefore, any development which will profoundly and adversely affect Coastal and Estuarine Waters will be discouraged. In the design, construction and operation of water dependent developments, every effort must be made to mitigate negative effects on water quality and fish habitat. These efforts will be at the owners' or operators' own expense.

b. Off - Road Vehicles

Caswell Beach's beach and dune areas are the principal concern with respect to off-road vehicle policies. Accordingly, all vehicles are prohibited from beach and dune areas year round except emergency vehicles under the terms of a Town ordinance adopted November 6, 1975.

c. Residential and Commercial Development

Caswell Beach supports low density residential and minimal commercial development that is in compliance with the Town's zoning ordinance, other applicable town development regulations, and the other policy areas.

4. PROVISION OF SERVICES TO DEVELOPMENT

a. Public Water Supply

Water is currently supplied to all developed areas in the Town. It is Caswell Beach's responsibility to provide the sources of water to the public. Caswell Beach purchases its water from Brunswick County, and supports the regional concept of water distribution in Brunswick County. The cost of securing this supply is to be borne by the users through users fees.

Caswell Beach has provided major trunk lines throughout the

town where public water is feasible and needed. Individual connections will be done at the user or property owners' expense. Developers of new subdivisions will be required to install water lines at their own expense.

b. Public Sewage System

Caswell Beach supports the construction of waste water collection and treatment facilities and believes the most practical way to develop such a system is on an island wide basis. Such a project would include: Long Beach, Yaupon Beach, The N.C. Baptist Assembly and the Oak Island Coast Guard Station.

c. Solid Waste Disposal

Caswell Beach recognizes its role as the provider of solid waste disposal services for its residents. It is the policy of Caswell Beach to have this service provided in an efficient, safe, and sanitary manner. In order to carry out this role, adequate means of final disposition must always be available. Caswell Beach presently uses a County landfill and will support the County's participation in regional landfill projects so long as they are retained, appropriately located, provided, maintained, and guaranteed.

d. Rescue Squad and Fire Protection

It is the policy of Caswell Beach to provide rescue and fire protection service through the support and use of neighboring communities volunteer departments.

e. Public School System

Although Caswell Beach has no school facilities in its jurisdiction, Caswell Beach does support and encourage the improvement of the Brunswick County school facilities utilized by its residents. Therefore, Caswell Beach will encourage continued and expanded multi-purpose use of school facilities for recreation and other purposes.

f. Transportation, Roads

Caswell Beach does not currently own any Road Rights of Way within its jurisdiction. All roads are either owned and maintained by the N.C. Department of Transportation or private development organizations.

g. Beach and Water Access

Beach and water access is a priority of the Town government. Caswell Beach supports the development of Beach Access facilities for full time residents, overnight visitors, guests and day vistorers. The Town has provided beach access by way of dune crossovers without major

parking facilities which are intended for full time residents, overnight visitors and guests who do not have direct beach access from their accommodations. Beach access with parking facilities is currently being developed on C.P. & L lands adjacent to the pumping facility. This area is designated as the principal beach access point for day visitors. A secondary day visitor beach access facility with parking is to be developed in conjunction with the proposed New Town Hall at the western end of the Beach on Robert L. Jones Drive.

5. ECONOMIC AND COMMUNITY DEVELOPMENT

Caswell Beach supports the development of residential, and recreational uses within the town provided that proper and adequate measures are incorporated into the design, construction and operation of such development to eliminate substantial negative impacts to neighboring land uses and the environment. New development will be encouraged in the most appropriate areas as determined from the Caswell Beach suitability map. New, approved, development shall be provided with the necessary public services.

a. Community Development, Residential and Commercial

It is the policy of Caswell Beach to encourage low density residential development in accordance with existing development standards. Tourism development is encouraged through seasonal home developments of this character. Commercial Development is discouraged anywhere in the town except within the existing commercial zone at the North end of the beach.

b. Industrial Development

Industrial development of any type is discouraged in any area of Caswell Beach. This policy is supported by the Caswell Beach zoning ordinance.

c. Commitment to State and Federal Programs

Caswell Beach strongly supports State and Federal efforts to maintain channels, conduct beach nourishment projects and limit shoreline erosion.

6. GROWTH PATTERNS

a. Compact Growth

Caswell Beach is a contained community at the eastern end of Oak Island with a natural limit on growth; all growth within the town therefore, occurs in a compact manner.

b. Provision of Services

Urban growth and development will be directed to occur in areas where services are available or planned. Caswell Beach will provide its municipal services to all approved developments within the Town.

c. Population Growth

Caswell Beach's policy is to discourage large amounts of growth and development and large increases in population. Low and medium density growth is recommended due to the Town's present lack of a sewer system.

d. Segregation of Existing Land Uses

Spatial segregation of conflicting land uses will be encouraged.

e. Housing and Land Use Development

Caswell Beach supports the development of low density multi-family and single family residential housing in accordance with the Town's zoning ordinance.

f. Compliance with Official Plans and Ordinances

Caswell Beach supports the compliance with the following official plans;

(1) Thoroughfare Plans. When a proposed subdivision includes any part of a proposed thoroughfare which has been designated as such in an officially adopted Thoroughfare Plan for the Town of Caswell Beach, all parts of such thoroughfare shall be platted by the subdivider in the locations shown on the Plat and at the right-of-way width specified in this Ordinance.

(2) Zoning Ordinance. Where a proposed subdivision is located in an area in which the Town Council of the Town of Caswell Beach has adopted a zoning ordinance and zoning map, said subdivision must comply in all respects with the requirements of the zoning ordinance.

7. POST DISASTER RECONSTRUCTION AND STORM HAZARD MITIGATION PLANNING

The Town's Post Disaster Reconstruction and Storm Hazard Mitigation Plan are provided as a separate plan. Such plan includes the following policies concerning Storm Hazard Mitigation and Post Disaster Reconstruction. These policies presume intergovernmental cooperation with the Brunswick County Evacuation Plan and recovery procedures operations.

- a. Storm Hazard Mitigation. Although much of the present development in Caswell Beach lies in hazard areas susceptible to significant storm damage, almost all future development will take place in B-zone areas, above the 100-year storm line. In general, the Town's existing mitigation policies

meet the requirements for hazard mitigation planning outlined in Before the Storm (McElyea, Brower, and Godschalk, UNC Center for Urban & Regional Studies, 1982). These policies consist of a combination of accompanying Land Use Policies and regulations established by the Town's land development ordinances. Specifically:

(1) The Town's growth policy encourages low density residential development, avoiding high density - high rise developments that are found in many North Carolina beach communities. The lack of specific plans for a central sewage treatment system will also enhance the continuance of this policy.

(2) The Town's policies support and are consistent with State policies and regulations for development in Areas of Environmental Concern.

(3) All new development must conform with the provisions of the N.C. Building Code.

(4) The Town's flood plain development policies conform with all Federal and State requirements and the Town is making all possible efforts to move from the emergency to the regular phase of the National Flood Insurance Program.

(5) The Town does an excellent job of controlling mobile home development in order to minimize hazard damages. Mobile homes are only allowed in a specific zoning district and must conform with elevation and other requirements. While the zoning ordinance provides for the development of mobile home parks through a specific zoning district, there are no areas in the town currently zoned for mobile home development and there are no mobile homes in the town at this time.

b. Post Disaster Reconstruction. The Town's Post Disaster Reconstruction Plan is organized in the following sections:

- o Introduction
- o Organization of Local Damage Assessment Team
- o Damage Assessment Procedures and Requirements
- o Organization of Recovery Operations
- o Recommended Reconstruction Policies

The following provides a summary of the plan's most important provisions and policies from each of these five sections.

(1) Introduction. Defines plan purpose and use; identifies three distinct reconstruction periods: Emergency, Restoration and Replacement/Reconstruction. Outlines sequence of procedures to be followed to meet State and Federal Disaster relief regulations: 1) Assess storm damage and report to County, 2) County compiles and summarizes individual community reports, 3) State compiles County data and makes recommendation to the

Governor, 4) Governor requests presidential declaration, 5) Federal relief programs available.

(2) Organization of Local Damage Assessment Team. Outlines personnel available and sets up means for mayoral appointment of team.

(3) Damage Assessment Procedures and Requirements. The purpose of this phase is to rapidly determine immediately following a storm disaster: 1) number of structures damaged, 2) magnitude of damage by structure type, 3) estimated total dollar loss, and 4) estimated total dollar loss covered by insurance. To accomplish this, the plan establishes four categories of damage: 1) destroyed (repairs > 80 % of value), 2) major (repairs > 30 % of value), 3) minor (repairs < 30 % of value), and 4) habitable (repairs < 15 % of value). A color coding system is recommended for this phase of damage assessment. Total damage in dollars is estimated by taking the tax valuation times a factor to make prices current, then factoring these figures according to number of structures in each of the above damage classifications. Estimated insurance coverage is made by utilizing information as to average coverage obtained by insurance agencies on an annual basis.

(4) Organization of Recovery Operations. The Mayor and Board of Commissioners assume the duties of a Recovery Task Force. The Task Force must accomplish the following:

- o Establish re-entry procedures.
- o Establish overall restoration scheme.
- o Set restoration priorities.
- o Determine requirements for outside assistance and requesting such assistance when beyond local capabilities.
- o Keep appropriate County and State officials informed using Situation and Damage Reports.
- o Keep the public informed.
- o Assemble and maintain records of actions taken and expenditures and obligations incurred.
- o Proclaim a local "state of emergency" if warranted.
- o Commence cleanup, debris removal, and utility restoration activities undertaken by private utility companies.
- o Undertake repair and restoration of essential public facilities and services in accordance with priorities developed through situation evaluations.

- o Assist individual property owners in obtaining information on the various types of assistance that might be available from Federal and State agencies.

(5) Recommended Reconstruction Policies. The policies outlined are for the Mayor and Commissioners to consider after a storm occurs. It is impractical to determine at this time what specific responses are appropriate, since the circumstances surrounding a given storm can vary greatly. The following policy areas are discussed:

- o Re-entry. Not allowed until the Mayor determines it safe and initial damage assessment is complete. A list of property owners will be maintained and kept at S. R. 133 entry to town.

Permitting. Permits to restore previously conforming structures outside AEC's issued automatically. Structures suffering major damage allowed to rebuild to original state but must be in compliance with N.C. Building Code, Zoning, and Flood Hazard Regulations. Structures with minor damage allowed to rebuild to original state before the storm. Structures in AEC's allowed to rebuild only after determination has been made as to adequacy of existing development regulations in these special hazard areas.

Utility and Facility Reconstruction. Water system components repaired or replaced must be floodproofed or elevated above the 100 year flood level. Procedures established to effect emergency repairs to N. C. 133 if necessary.

Temporary Development Moratorium. To be considered after major storm damage for AEC's if existing regulations appear inadequate to protect structures from storm damage.

CONTINUING CITIZEN PARTICIPATION

Caswell Beach actively encouraged citizen participation in the preparation of the 1985 Land Use Plan Update. Planning Board meetings on the subject of the Land Use Plan were announced to the public through press releases to local media and through the posting of notices at Town Hall. At least six meetings were held over the course of the planning process during the fall and spring.

A citizen's survey was developed and mailed to all property owners in Caswell Beach in January, 1985. Additionally, surveys were hand delivered to all condominium residents. Over 300 surveys were distributed; more than 100 were returned. Survey results are presented under separate cover by the report: "1985 Land Use Plan Update Citizen Survey Results".

The results of the survey were analyzed by the planning staff and discussed with Town officials prior to the development of new Town policies. The survey results provided insight into community values and were used to guide policy development and refinement. Particularly helpful were the results related to permanent and seasonal occupancy rates, which were invaluable in projecting future population, and the results of questions related to density and current zoning, which helped reinforce the Town's commitment to maintaining the low density residential character of Caswell Beach.

In keeping with the Town's actions in the development of the 1985 plan update, the following public participation policies will continue to be implemented:

All land use plans and updates will be prepared with public participation. Citizen participation in the land use planning process will be accomplished by using the following plan.

I. Citizen Education

- A. Newspaper: News Releases
- B. Working Papers, Draft Plans
- C. Public Meetings

II. Citizen Input

- A. Public meetings
- B. Surveys: mailed and returned via postal service or delivered door to door in condominiums
- C. Review and comments: public review meetings

III. Citizen Support - Ongoing

- A. On-going use of I & II above
- B. Formal public hearings

LAND CLASSIFICATION

The land classification system for Caswell Beach provides a graphic representation of Caswell Beach's general land use policies and orientation toward low density, residential development.

The land classes used here are derived from the five broad classifications described in NCAC 15, Subchapter 7B, the State land use planning guidelines. The five classes are Developed, Transition, Community, Rural and Conservation. Only two of these categories are applicable to Caswell Beach: Transition and Conservation.

The Transition category has been broken down into two subclasses: Transition Residential and Transition Mixed Use. The Conservation category includes a subclass of Conservation/Utility Access.

Transition

The purpose of the Transition class is to provide for future intensive urban development on lands that are suitable and that will be provided with the necessary urban services to support intense urban development.

Predominantly residential areas meet the intent of the transition classification if they exhibit characteristics such as:

- o a density at or approaching 500 dwelling units per square mile, or
- o a density which will meet or exceed three dwelling units per acre, or
- o a majority of lots are 15,000 square feet or less.

The Transition Residential category in Caswell Beach includes those areas which are largely residential in character. These areas are provided with partial municipal facilities (central water, fire and police protection, solid waste collection, etc.) and should be served with central sewage treatment facilities if such facilities become available in the Caswell Beach area.

The Transition Mixed Use class includes those areas which are more suitable for a broader range of activity, including recreational, limited commercial, and residential uses. These areas are also provided with partial municipal services (central water, fire and police protection, solid waste collection, etc.) and should be served with central sewage treatment facilities if such facilities become available in the Caswell Beach area.

Conservation

The purpose of the conservation class is to provide for the effective long-term management and protection of significant, limited, or irreplaceable areas. Management is needed due to the

natural, cultural, recreational, scenic or natural productive values of both local and more than local concern.

The Conservation class in Caswell Beach is applied to lands that contain:

- o AEC's, including but not limited to public trust waters, estuarine waters, coastal wetlands, etc. as identified in 15 NCAC 7H; and
- o Other similar lands, environmentally significant because of their natural role in the integrity of the coastal region and which include, but are not limited to, major wetlands, essentially undeveloped shorelands that are unique, fragile or hazardous for development; necessary wildlife habitat or areas that have a high probability for providing necessary habitat conditions; publicly owned water supply, water sheds and aquifers; and forest lands which are undeveloped and will remain undeveloped for commercial purposes.

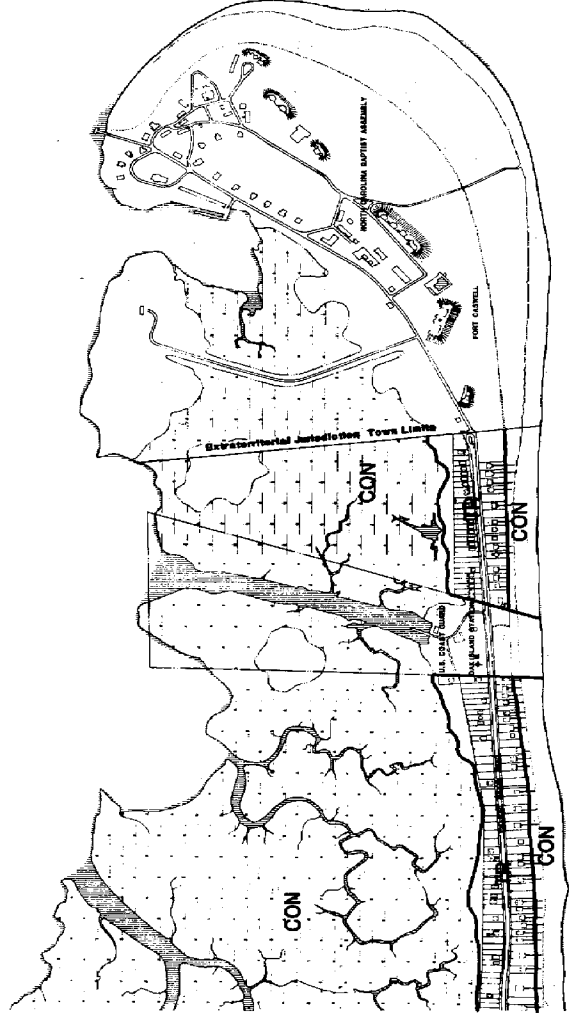
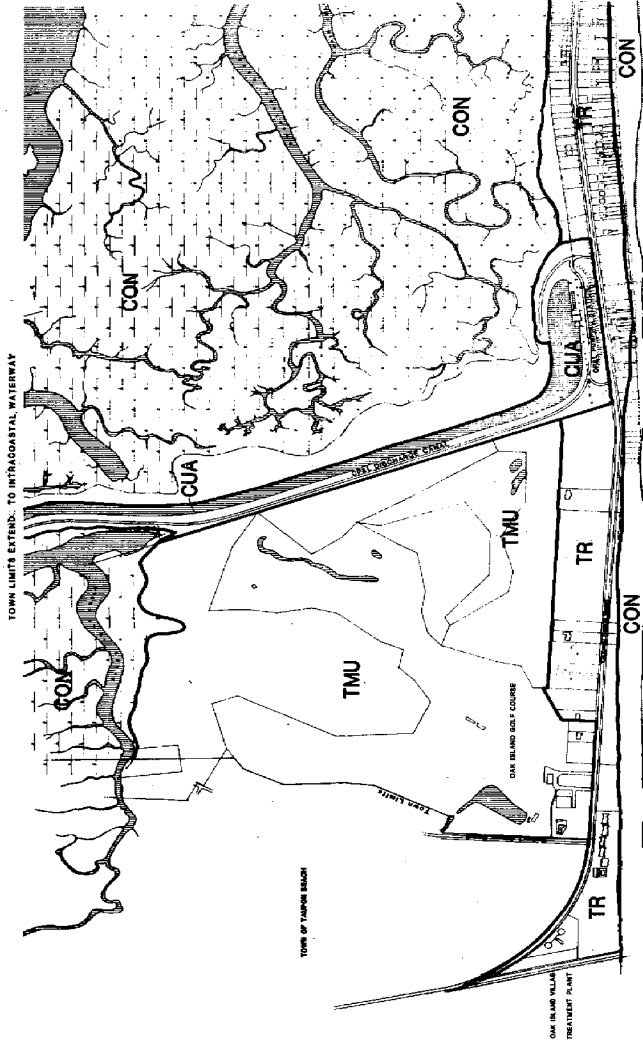
A subclass of the Conservation category is Conservation/Utility Access. The purpose of this classification is to provide for ingress and egress to navigational waters for utilities. Lands in this category would be maintained in their natural state and would otherwise be classified conservation. In Caswell Beach, the CP & L cooling canal is classified in this category.

CASWELL BEACH, N.C.

LAND CLASSIFICATION MAP

LEGEND:

- TR TRANSITION RESIDENTIAL
- TMU TRANSITION MIXED USE
- CUA CONSERVATION/UTILITY ACCESS
- CON CONSERVATION (includes all AEC's)



MAP 5

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Mapping Date: JUNE, 1985



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