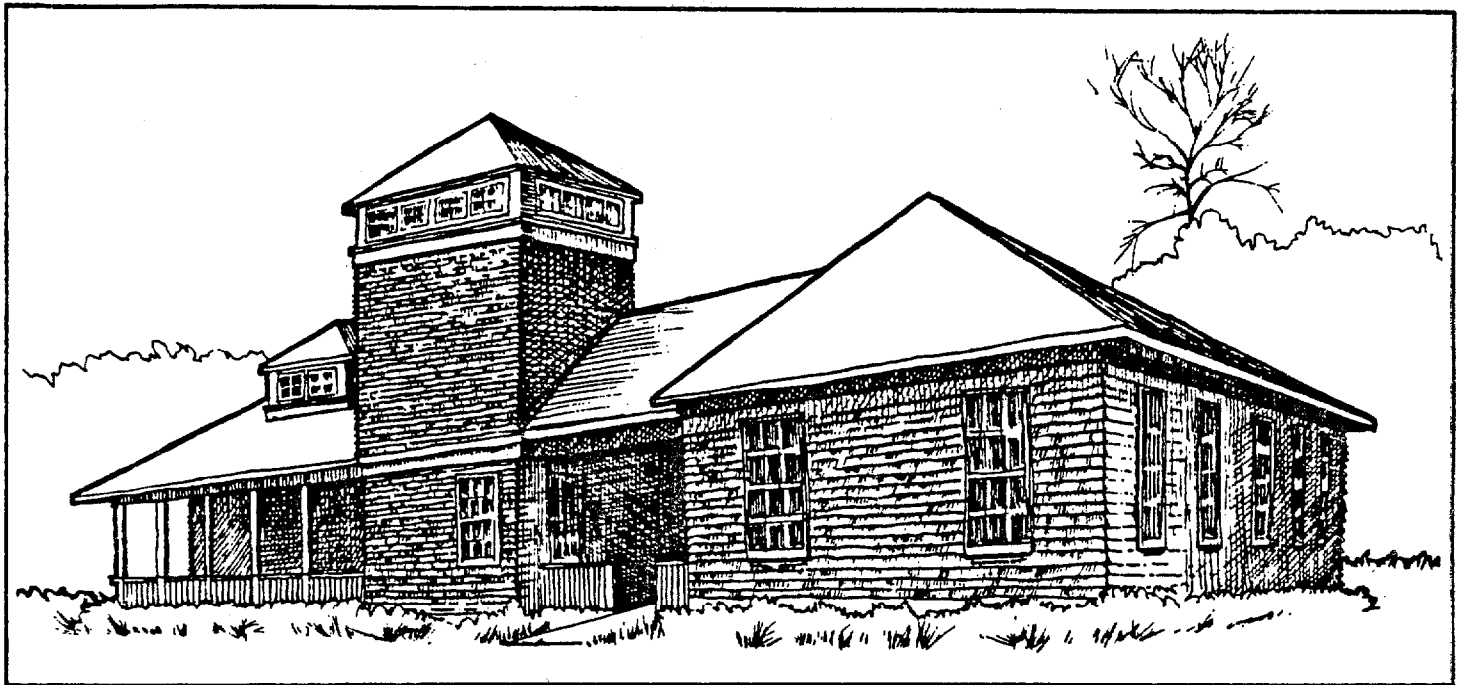


LAND USE PLAN  
KITTY HAWK  
NORTH CAROLINA  
1989



LAND USE PLAN

TOWN OF KITTY HAWK, NORTH CAROLINA

1989

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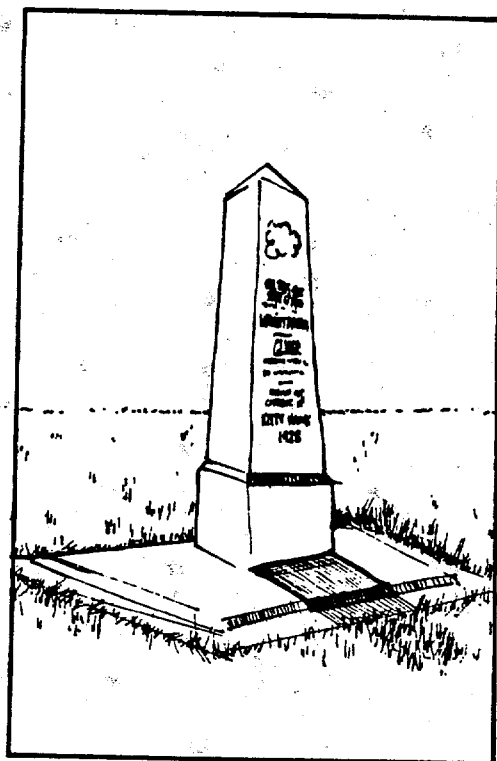
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## INTRODUCTION



## **Introduction**

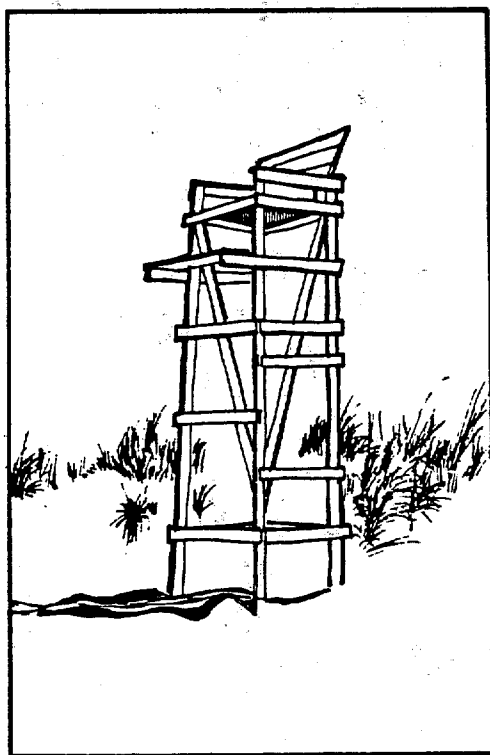
A land use plan is both a tool and a requirement. Communities in coastal North Carolina are required by the Coastal Area Management Act to have and maintain current land use plans which provide a management system to safeguard natural resources. The Town adopted its first Land Use Plan in 1983; this Plan is an updated version of that Plan. An effective Plan must ensure that development proceeds in an orderly fashion that is consistent with the capability of the land to sustain that development. It recognizes that economic development of the coastal area is vital and that the protection of the natural system is essential.

A land use plan charts the course for future development. It carries with it the effect of law in that no permit shall be issued for development that is inconsistent with the approved land use plan. Kitty Hawk's residents recognize the value of growth and want to avoid the problems experienced by other oceanfront communities which have been overwhelmed by change before starting to plan.

The Kitty Hawk Land Use Plan begins with a brief history of the community. It then analyzes conditions in Kitty Hawk -- its economy, its land use patterns, its natural resources, its capacity for growth, and its community services. This analysis includes declarations of policy regarding different aspects of development in the community. To summarize development policies, the Plan contains a land classification system that describes the general character of existing land use and the desired pattern for future land use. The land classification system is refined by a map of future land use and policies for Kitty Hawk which define the location, type, and density of residential, commercial, and industrial uses of the land. It concludes with an implementation plan to carry out the policies.

In developing the plan a consultant worked with the Town Planner and Planning Board which held nineteen public meetings. It was approved by the Town Council after a public hearing on April 27, 1989 and by the Coastal Resources Commission on May 26, 1989.

# HISTORY OF KITTY HAWK





## Chapter One

### History of Kitty Hawk

In the early 1500s, the Italian explorer, Giovanni da Verrazano, was the first European to leave a written account of his expeditions and observations along the coast of what is now the southeastern United States. Sixty years later, Sir Walter Raleigh sent two ships as England's first, and unsuccessful, attempt to colonize the New World.

They found an entrance through the Banks above Cape Hatteras, probably at the present-day Jeanguite Creek north of Kitty Hawk, and "cast anker about three harquebushot within the havens thither" and went ashore on the south side of the inlet "to take possession of the same in the right of the Queenes most excellent Majestie." They found friendly Indians, an "incredible abundance" of fish, fruit, birds, deer and other edible game, and "the highest, and reddest cedars of the world." (David Stick. 1958. The Outer Banks of North Carolina. Chapel Hill: University of North Carolina Press)

Despite the mysterious fate of the "Lost Colony," later English efforts were successful, and by the later 1700s, the pattern of European settlement of the Outer Banks was fairly well established. The people lived off the bounty of the land, the ocean, and the bays. People raised garden crops and livestock. They harvested fish, oysters, clams, crabs, and other fruits of the sea. They timbered stands of forest to build their houses and boats. Other occasional activities supported people too -- from piloting outside boats through the inlets and sounds to scavenging the remains of frequent shipwrecks.

Lively arguments can still be heard concerning the origin of Kitty Hawk's name. It most likely comes from an Indian place name, as the area appears as "Chickehawk" or "Chickahawk" on maps of the early 1700s. However, by the later 1700s, residents were spelling the name much as it is today, with old deeds referring to the settlement as "Kittyhuk," "Kittyhark," "Kittyhawk," and "Kitty Hawk."

Well into the twentieth century, the residents of the Outer Banks followed traditional pursuits reflecting high degrees of both self-sufficiency and dependence on the ocean, sounds, and marshes. They were commercial fishermen, sailors, salvagers, boat builders, lumbermen, pilots, Coast Guardsmen, shore-whalers, and porpoise seiners.

One of the seven original U.S. Coast Guard Lifesaving stations on the Outer Banks was constructed on Kitty Hawk beach in 1874. The community's first post office opened in 1878.

The community was not prosperous, but it existed comfortably as long as the land and waters continued to supply fish, shellfish, and game and as long as outside work could be found as a pilot, Coast Guardsman, fisherman, or boat builder. Kitty Hawk remained to itself and sustained itself.

In 1900, two young visitors from Ohio, Orville and Wilbur Wright, came to Kitty Hawk. It was a place where they could begin a series of experiments that would change the world -- a place clear of trees and low hills and having steady, moderate winds.

The Wrights pitched camp and began their experiments on Kill Devil Hill, the high ridge just south of Kitty Hawk Village. From the beginning, they were profoundly impressed with the austere living conditions of the "friendly and neighborly" people who greeted them. In letters to his father and sister back in Dayton, Ohio, Wilbur Wright reported "little wealth and no luxurious living . . . . This is a great country for fishing and hunting. The fish are so thick you see dozens of them whenever you look down into the water. The woods are filled with wild game. . . ."

In three years of intense experimentation, the Wrights endured extremes of wind, weather, sand, insects, wrecked theories, and mechanical failures. Then, on the afternoon of December 17, 1903, Orville Wright hurried across the dunes to the Kitty Hawk Weather Station and sent a terse telegram to his father:

**SUCCESS FOUR FLIGHTS THURSDAY MORNING ALL AGAINST TWENTY-ONE  
MILE WIND STARTED FROM LEVEL WITH ENGINE POWER ALONE AVERAGE  
SPEED THROUGH AIR THIRTY-ONE MILES LONGEST 57 SECONDS INFORM  
PRESS HOME CHRISTMAS**

Around the same time, the unique Outer Banks economy began to die on the vine. Waterfowl and boat-grade timber were becoming scarce. Eelgrass beds were destroyed by a blight. Fisheries began to decline. Steam freighters no longer plied the sounds. Shipwrecks became a rarity. Kitty Hawk remained isolated from the mainland in a world that was relying more and more on the automobile to move goods and people from one place to another.

In the 1920s, a growing band of citizens shared a vision of opening the Dare Beaches with bridges and roads connected to the mainland. Their efforts led to the construction of a bridge from Nags Head to Roanoke Island in 1928 and, in 1930, the construction of the Wright Brothers Memorial Bridge from Kitty Hawk to Point Harbor. An 18-mile sand and asphalt highway linked Kitty Hawk, Nags Head, and the two bridges.

While the Great Depression stalled the impact of these public works, it also marked the transition of the Outer Banks economy from one based on commercial fishing and maritime traffic to one based on tourism and second-home development. After World War Two, the nation began an era of unprecedented prosperity, and a boom in tourism and development began on the Dare Beaches. This boom intensified in the 1960s and 1970s and continues today.

The Town of Kitty Hawk incorporated on April 13, 1981. Up until 1920, the village of Kitty Hawk was under the jurisdiction of Currituck County, though it was directly connected to Dare County, which was established in 1870. In 1920, the General Assembly made Kitty Hawk and the neighboring community of Duck part of Dare County. Despite recurrent talk of incorporation, a petition of incorporation was not circulated until the winter of 1980-1981. The petition, signed by a solid majority of Kitty Hawk's residents, was then presented to and approved by the General Assembly. Incorporation gave Kitty Hawk the ability to preserve its historical identity and chart its own course for the future.

The Town Charter, issued on November 20, 1981, created a Mayor-Council form of government but short experience soon lead to a change to the Council-Manager form.

When it incorporated, the Town had 1,598 taxpayers and 477 registered voters. At the end of 1988 there were 3,273 taxpayers and 972 voters.

Another indicator of growth is the building permits that have been issued for construction in Kitty Hawk:

Year	1982	1983	1984	1985	1986	1987	1988
Permits Issued	100	137	188	149	183	176	222

Kitty Hawk's permits represent an average of 8% of the building permits issued in Dare County as a whole.

The town's staff numbered three in 1981 and increased to sixteen by 1988. The four room commercial office which the Town acquired for its Town Hall was renovated with two additional rooms but proved totally inadequate for the Town's needs. A Town Hall containing a 100 seat auditorium and eleven offices has been constructed on a 27 acre parcel of land that was donated to the Town and was occupied in February 1989.

All of the above indicators verify the published reports that Kitty Hawk is one of the communities experiencing explosive expansion. It also demonstrates the need for a Land Use Plan which effectively manages development to provide for the health and welfare of the population.

Recognizing that accelerating growth required professional attention, the Town hired a Planner in September, 1987. He also acted as Zoning Administrator. A number of program changes have evolved: There has been a shift from lot-by-lot commercial development to ordinances encouraging unified development; procedures were instituted which involve the Town earlier in the development process with developers; and ordinance changes now ensure better compliance with zoning standards. In 1989 the Town will establish an office of Planning Development and Management for full time planning. It also proposes to hire a Codes Enforcement Officer for the Office of Enforcement and Permits.

The Town is not only growing but it is also growing-up. It is moving towards a program of professionalism in the management of growth and the multitude of related problems.

ATTITUDES ABOUT GROWTH IN  
KITTY HAWK



## Chapter Two

### Attitudes About Growth in Kitty Hawk

This Plan was first adopted by the Town in 1983. In the process of updating the Plan the Town made a concerted effort to learn how people felt about the future of Kitty Hawk. The Planning Board held a number of meetings to discuss the Plan and its several elements. All of the meetings were open to the public and were advertised as such. The public was encouraged to participate in the meetings and many did. The Kitty Hawk Citizen's Association reviewed the preliminary plan and made contributions. In addition to inviting this sort of participation the Town mailed a survey to every person who owned land in the Town; 137 responses were received from people whose address was in Kitty Hawk; 391 were received from people whose address was outside Kitty Hawk.

Both groups indicated very protective feelings about Kitty Hawk. The attitudes expressed support and continuation of policies developed in the first plan. Those policies sought to protect the environment and allow guided growth. This plan endeavors to attempt to ensure that growth does not have a deleterious effect on the natural environment.

A number of questions were asked about specific development issues and existing development policy. Again the responses were quite uniform indicating a high level of support for existing policy. In some instances the non-residents indicated an even more protective stance than the residents which would tend to support one of the underlying assumptions of this Plan: that a well-planned community and a healthy natural environment attracts visitors and those visitors are good for the economy.

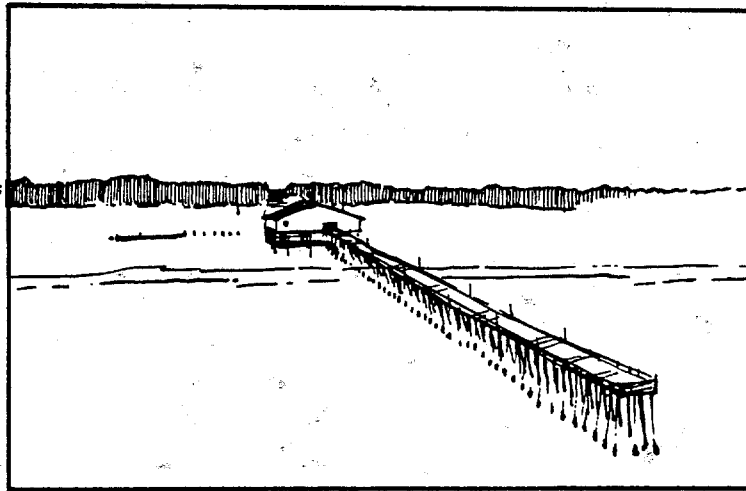
In summary, the respondents liked Kitty Hawk a lot. They chose it for what it is, a small, family oriented beach community. They love the natural environment but are concerned that it may be slipping away from them. They recognize that some growth is inevitable and want it to be integrated into and compatible with the natural environment.

The Town of Kitty Hawk has relied on public involvement in formulating this Land Use Plan. The Town's Planning Board has represented various viewpoints of the people of the Town. In addition, they have actively sought the opinions of Kitty Hawk's residents and land owners to identify what makes the community so special to people, what the Town's greatest needs are, how development should be managed, and what directions future development should take. The Planner took the Land Use Plan to a meeting of the Kitty Hawk Citizen's Association, discussed it in detail and received much input. Carol Lyons, President of Kitty Hawk Citizen's Association, was appointed to serve on the editing committee.

**POLICY:**

To ensure a strong voice in the government in the Town of Kitty Hawk the public will continue to be actively involved in the planning process.

ECONOMY





## Chapter Three

### Economy

Kitty Hawk's economy is based primarily on recreational tourism and the service related support businesses such as real estate, accommodations, restaurants, sporting and commercial fishing, golfing, professional services, retail stores, construction activities and supplies. This heavy reliance on tourism creates the need to attempt to broaden the economic base to include non-tourist related activities to provide some sense of stability in the event that the Outer Banks becomes less attractive as a tourist area.

As with all of the communities on the Outer Banks, Kitty Hawk's economy bustles from May to September and continues at a slower, more relaxed pace in the off-season. This annual cycle is part of the Town's character and appeal. While much more retail activity occurs during the summer months, a certain number of stores and professional offices operate year-round to meet the needs of Kitty Hawk's residents, which include a large number of retired persons, and an increasing number of "off season" visitors.

Many of the Town's residents commute to jobs in nearby communities such as Kill Devil Hills, Nags Head, Manteo, and Wanchese; some people who live in these communities work in Kitty Hawk.

As of January, 1989 the following types of businesses were located in Kitty Hawk: general retail, 48; accommodation, eating, entertainment, 38; construction, building supply, real estate, 32 and personal services, 26, for a total of 144. There were no support industries for off-shore drilling nor does the Town encourage such businesses.

Kitty Hawk has no commercial agriculture or forestry operations, nor does it have large-scale fisheries. However, several people in Kitty Hawk Village have small-scale, independent commercial fishing and crabbing operations. As Kitty Hawk's residents have done for generations, these people harvest fish, shellfish, and crabs when the season is right; they keep some for themselves, and they sell

the rest. These operations and their small scale are part of Kitty Hawk Village's traditional economy and way of life. They are worth preserving and enhancing.

It is recognized that Kitty Hawk is just one of many communities fronting on the Atlantic Ocean and that each of these places offers a different mix of attractions to the visiting public. Some places offer a carnival sort of environment, others assume that people come to the beach only to shop or to gamble. Kitty Hawk is, and intends to stay, a family oriented beach community in which the beauty and intrinsic value of the natural resources are preserved and the built environment is safe, convenient and aesthetically pleasing. The economy of Kitty Hawk depends on the continued existence of these values because without them it would be just another place with nothing special to offer the visitor except just another honky tonk and T-shirt shop.

It is also recognized that cluttered and confused entranceways and thoroughfares are not only not good for the local economy, they are a traffic hazard by diverting drivers attention as well.

#### **POLICIES:**

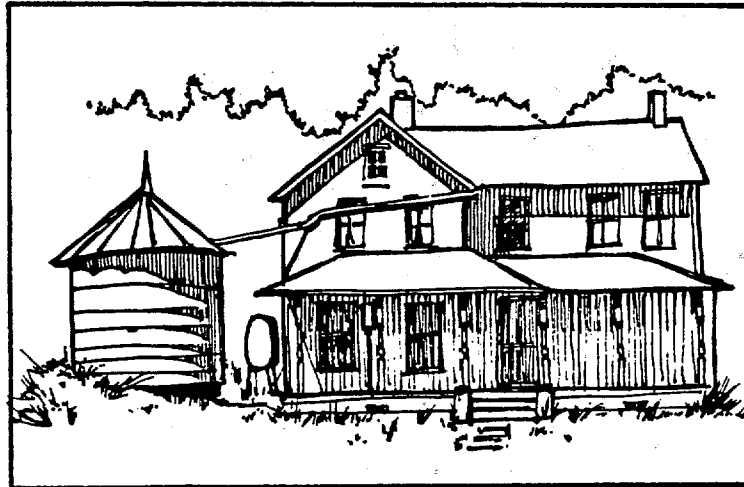
The Town will maintain and promote its appeal as a place to visit and as a place to live by preserving its character as a low-density beach community, by preserving and enhancing its physical attractiveness and its natural beauty, and by planning for public beach access and open space through the land use plan, zoning and subdivision regulations, and other development policies.

The Town will encourage the continuation of independent fishing and crabbing operations and family oriented tourism as a part of Kitty Hawk's traditional economy.

The Town will explore all options open to it to preserve and enhance the beauty of its natural and built environment. This will include but not be limited to ordinances and other policies to clear up existing eyesores, e.g., a reexamination of the sign provision of the zoning ordinance and the formulation of policy dealing with the visual appearance of the entranceways to and major passageways through the Town.

The Town will explore non-tourist related business to broaden the economy but is not interested in businesses which have an adverse impact on the natural environment.

NATURAL ENVIRONMENT



## Chapter Four

### Natural Environment

#### Water

On September 23, 1900, Wilbur Wright closed his first letter from Kitty Hawk with this reassurance to his worried father: "I am taking every precaution about my drinking water." He could have been overly cautious; then, as now, Kitty Hawk's wells were producing potable and plentiful water (with a few notable exceptions). From colonial times until recently, water for household use has come from individual wells. However, since the Dare County water system was completed in 1980, most of the Town's homes and businesses have been connected to it (see map for areas presently served).

#### POLICIES:

The Town of Kitty Hawk will continue to vigorously pursue extending the Dare County water system into unserved areas where growth is anticipated.

The Town of Kitty Hawk will continue to project the community's future water needs in relation to its growth potential.

The Town of Kitty Hawk will continue to encourage Dare County to modify the existing water system into "loops" which will help to maintain service in the case of a malfunction in the system.

#### Soils

Soils are a basic natural resource whose properties greatly influence how people use the land. Soil analyses can indicate hazardous areas which development should avoid or modify. Certain soil types indicate periodic storm flooding in low-lying soundside locations. Other soil types are associated with a high seasonal water table which can make an area unsuitable or uncomfortable for year-round habitation. The load-bearing capacity of different soils is also important in Kitty Hawk because of the number of structures that are built on pilings to withstand wind and flooding damages; the depth to

which these pilings are driven must be determined through a knowledge of subsoil properties to ensure the strength of the building.

Probably all of the soils in Kitty Hawk could be modified to accommodate any selected use, but environmental, monetary, and social costs would be excessive. The costs of improperly planned soil modifications is borne not only by the developer, but also by the public since misuse of the land can lead to severe environmental problems for the community. Therefore, it is desirable to recognize the limitations of certain soils and to evaluate their potential or suitability for septic tanks, landfills, waste disposal, urban development, industrial development, recreation, roads, and the like.

The following table, derived from the U.S. Soil Conservation Service's Soil Survey of the Outer Banks, shows the different types of soil in Kitty Hawk, their depth to the water table, and the severity of their limitations for bearing development.

Soil Unit	Depth to Water Table	Limitations Rating
Beach-Foredune Association	0-3.0'	Severe
Corolla fine sand	1.5-3.0'	Severe
Corolla fine sand, forested	1.5-3.0'	Severe
Corolla-Duckston complex	1.0-3.0'	Severe
Duckston fine sand, forested	1.0-3.0'	Severe
Fripp fine sand	6.0'	Severe
Madeland	3.0'	Severe
Currituck soils	0-3.0'	Severe
Conaby soils	0-1.0'	Severe
Duneland	6.0'	Severe
Newhan fine sand	6.0'	Slight
Newhan-Corolla complex	7.0'	Slight
Duneland-Newhan complex	6.0'	Slight
Newhan-Urban	6.0'	Slight

Soil limitation ratings refer to the soil's capacity to support dwellings, streets, and septic tank fields. The attached soils map shows the extent of those soils which have limitations for development. A rating of "slight" means that the soils' chemical and physical properties are generally favorable for these uses or that any limitations are minor and easy to overcome. A rating of "severe" means that the soil's properties are unfavorable and that these limitations are difficult to correct or overcome. A rating of "severe" does not preclude possible development; however, any unfavorable conditions must be overcome by appropriate land development techniques. A rating of "very severe" is a subdivision of "severe" and has one or more features so unfavorable that it would be very difficult and expensive to correct. In all cases, "slight" and "severe," on-site investigations of the soil are necessary for the proper design and placement of buildings, foundations, roads, utility lines, and septic systems.

In Kitty Hawk the best (there are none better) soils have slight limitations. (See Soil Limitations Map.) Only slightly over 1,000 acres, or 20% of the land in Kitty Hawk, falls into this category. But of that, only 212 acres is undeveloped and is zoned for residential purposes. The remaining land has severe or very severe limitations.

#### Soils

<u>Limitation</u>	<u>Acres</u>	<u>Number of Areas</u>	<u>Percent of Total</u>
Slight	1081.72	1	21.34
Severe	2176.87	12	42.94
Very Severe	<u>1810.88</u>	22	<u>35.72</u>
	5069.47		100.00

In rating a soil for any limitations for dwellings, emphasis falls on its load-bearing capacity (for holding the foundation), slope, susceptibility to flooding, depth to seasonal high water table, and other hydrologic conditions. In rating a soil for limitations for roads, emphasis falls on its susceptibility to flooding, depth to seasonal high water table, texture, drainage, and ease of hauling and loading. In

rating a soil for any limitations for septic tank filter fields, emphasis falls on its permeability, susceptibility to flooding, depth to water table, and slope.

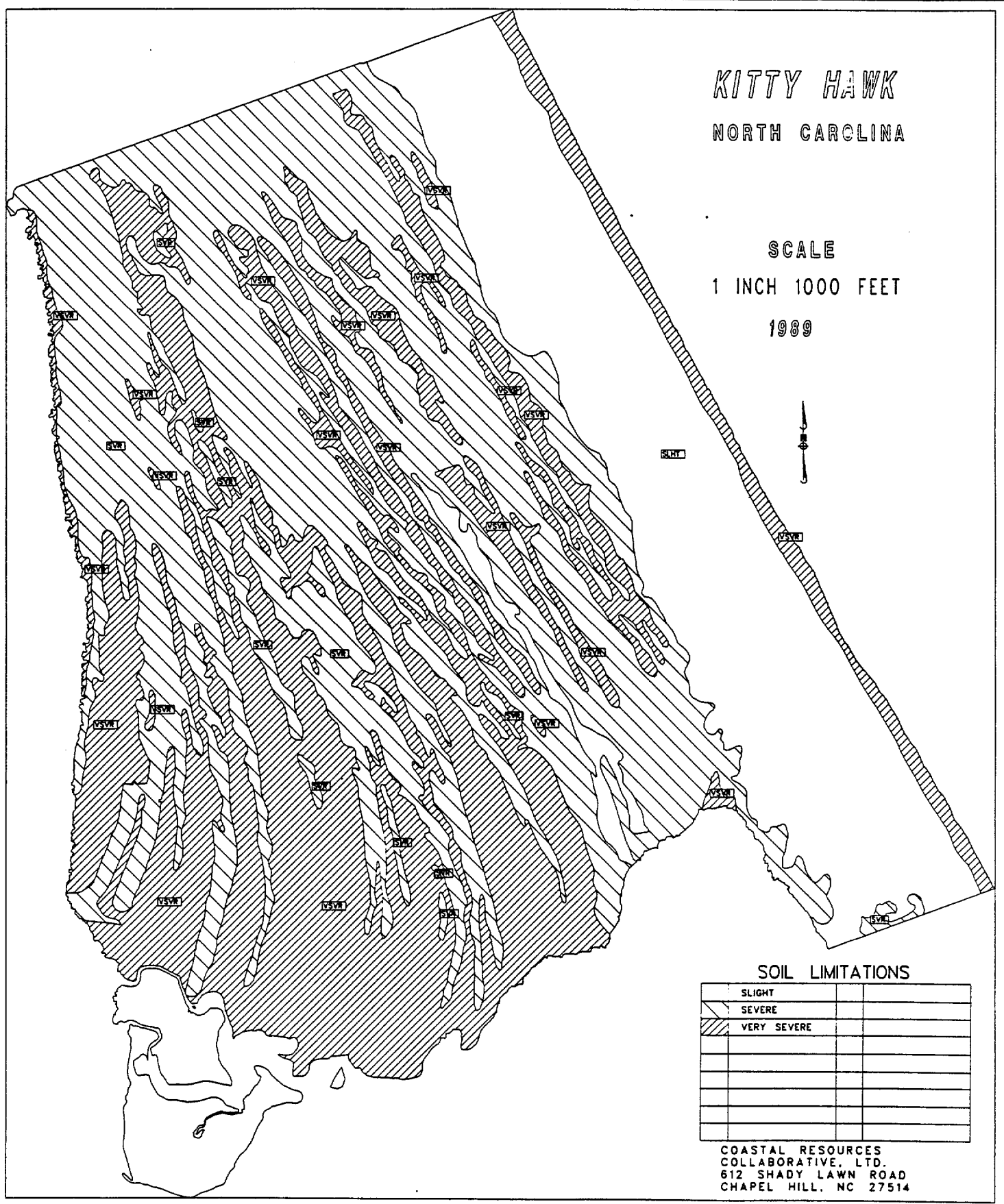
The on-site disposal of septic tank effluent is a common soils problem in Kitty Hawk. Using existing septic tank technology, many wet and/or impermeable soils in the area are severely limited in their ability to accommodate effluent in a safe and sanitary manner. In some dry soils, such as dune sand, the soil is too permeable to accommodate effluent, leading to the pollution of ground waters and adjacent estuarine waters. Using existing technology, it is difficult and/or expensive to overcome these limitations in a way that is not damaging to the environment. When local officials know these problems exist, they can deal with them by adopting appropriate requirements for development, such as minimum lot sizes or centralized sewage treatment and disposal systems. Then, proper technical adjustments and innovations can often make development environmentally acceptable.

Nearly all of the homes and businesses in Kitty Hawk rely on septic tank and drainfield systems to treat and dispose of wastewater. While under good conditions, such systems are perfectly adequate, Kitty Hawk's natural environment presents enough hazards to the proper functioning of septic systems that their use must be carefully monitored. As noted earlier, most of the soils in the Town of Kitty Hawk are not well-suited for septic tanks and drainfields. Periodic high water tables in certain areas can block the proper percolation of wastewater throughout the soil and can lead to the contamination of estuarine waters. In addition, placing septic systems too close to wells creates a threat to human health. The Dare County Health Department is responsible for overseeing and permitting the use of septic systems in Kitty Hawk; in doing so, the Health Department uses standards adopted by the State of North Carolina's Department of Human Resources. These standards cover the design and location of septic tanks and drainfields. The standards are currently adequate to meet Kitty Hawk's needs and concerns.

# KITTY HAWK

## NORTH CAROLINA

SCALE  
1 INCH 1000 FEET  
1989



### SOIL LIMITATIONS

SLIGHT		
SEVERE		
VERY SEVERE		

COASTAL RESOURCES  
COLLABORATIVE, LTD.  
612 SHADY LAWN ROAD  
CHAPEL HILL, NC 27514



**POLICIES:**

The Town will explore ways in which the effects of stormwater runoff can be minimized. This will include an examination of existing development management policy dealing with coverage, lot size, protection of natural drainage systems, etc.

It is recognized that all of the soil in Kitty Hawk is limited in terms of its ability to adequately accommodate septic tanks. Much of the better soil has already been developed leaving only the soils with severe and very severe limitations. It is the policy of the Town that a community-wide public sewer system will not be installed. The Town will explore the possibility of formulating regulations dealing with package treatment plant inspection and maintenance. If it is not feasible, the Town will explore urging the county and state to formulate a program to insure the continued adequate operation of these facilities.

**Areas of Environmental Concern**

Under the Coastal Area Management Act, North Carolina's Coastal Resources Commission (CRC) has designated a number of areas of environmental concern (AECs) in order to protect the state's valuable natural resource. (See AEC Map.) The Town of Kitty Hawk contains six types of AEC in two categories:

**Estuarine System AECs**

1. Estuarine Waters
2. Coastal Wetlands
3. Public Trust Areas
4. Estuarine Shorelines

**Ocean Hazard AECs**

5. Ocean Erodible Areas
6. High Hazard Flood Areas

These AECs are indicated on the AEC Maps; their exact location and extent must be determined by on-site inspections.

**Estuarine System AECS:**

The lands and waters that comprise the estuarine system hold enormous economic, biological, social, and aesthetic values for the Town of Kitty Hawk and the State of North Carolina as a whole. These lands and waters are interdependent and must be managed as a unit. Any alteration, however slight, in one component of the estuarine system may result in unforeseen consequences to seemingly unrelated areas of the system. In order to protect the estuarine system, the CRC has designated individual components of it as AECs and adopted guidelines for their use. These components are the estuarine waters, coastal wetlands, public trust areas, and estuarine shorelines. Each of these is either directly within the estuary itself or significantly affects the estuary. All of these are found within Kitty Hawk.

The estuarine waters AEC includes all waters of the State's bays, sounds, and streams seaward of the dividing line between coastal fishing waters and inland fishing waters (as set forth by a joint agreement between the Wildlife Resources Commission and the Marine Fisheries Commission). In the Town of Kitty Hawk, the estuarine waters AEC includes Currituck Sound, Kitty Hawk Bay, and the streams draining into them.

The coastal wetlands AEC includes any salt marsh or other marsh subject to regular or occasional flooding by tides (whether or not the tidal waters reach the wetlands through natural or artificial watercourses). Coastal wetlands are important because they yield high levels of organic detritus and nutrients which serve as a primary food source for various species of fish, shellfish, and waterfowl. Their dense vegetation and root networks also help retard shoreline erosion and trap sediments before they reach the estuarine waters. There are no coastal wetlands along Kitty Hawk's ocean shoreline; however, extensive wetlands line Currituck Sound and Kitty Hawk Bay (see map).

The public trust AEC includes 1) all waters of the Atlantic Ocean and the lands thereunder from the mean high water mark to the seaward limit of state jurisdiction, 2) all other bodies of water subject to lunar tides (and the lands thereunder) below the mean high water level, 3) all waters in artificially created bodies of water containing significant public fishing resources or other public resources which

are accessible to the public by navigation from bodies of water in which the public has rights of navigation, and 4) all waters in artificially created bodies of water in which the public has acquired rights by prescription, custom, usage, dedication, or any other means. In the Town of Kitty Hawk, the public trust AEC covers the waters and submerged lands of the Atlantic Ocean, Currituck Sound, and Kitty Hawk Bay. It also covers the many navigable natural and man-made channels that open into Currituck Sound and Kitty Hawk Bay (see map).

The estuarine shoreline AEC covers non-ocean shorelines, which are typically subject to erosion, flooding, and other adverse effects of wind and water. Though the estuarine shorelines are typically dry land, they are intimately connected to the estuary; development along the shoreline can have a strong effect on the quality of estuarine waters, coastal wetlands, and their ability to sustain their economic, biological, social, and aesthetic values. As defined by the CRC, the estuarine shoreline AEC extends from the mean high water level (or normal water level) along the estuarine waters AEC to a line 75 feet landward. In the Town of Kitty hawk, the estuarine shoreline AEC encompasses the entire shoreline along Currituck Sound and Kitty Hawk Bay (see map).

#### Ocean Hazard AECs:

The Atlantic shoreline is especially vulnerable to erosion and other adverse effects of wind and water. Ocean hazard AECs include beaches, frontal dunes, inlet lands, and other areas in which geologic, vegetative, and soil conditions indicate a substantial possibility of excessive erosion or flooding. Uncontrolled or incompatible development within these areas can present an unreasonable danger to life and property. In the Town of Kitty Hawk, there are two types of ocean hazard AECs: ocean erodible areas and high hazard flood areas.

The ocean erodible AEC includes that area in which there exists a substantial possibility of significant erosion and shoreline fluctuation. The seaward boundary of this area is the mean low water line. The landward boundary of this area is determined as a combination of:

1. a distance landward from the first line of stable natural vegetation to the recession line established by multiplying the long-term annual erosion rate, as most recently determined by the CRC, by 60. Where there has been no long-term erosion or the rate is less than two feet per year, this line is 120 feet landward from the first line of stable natural vegetation; plus
2. the distance landward from the above recession line to a second recession line that would be generated by a storm having a one percent chance of being equalled or exceeded in any given year.

In the Town of Kitty Hawk, the ocean erodible AEC covers the entire Atlantic shoreline; it consists of three separate segments with different rates of erosion and different "setbacks" established by the CRC (see map) from the first line of stable natural vegetation.

The high hazard flood AEC is the oceanfront area subject to flooding and high velocity waters (including wave wash) in a storm having a one-percent chance of being equalled or exceeded in any given year, and indicated as Zones V1-V30 (known as "V zones") on the flood insurance rate maps established by the Federal Insurance Administration. Since Dare County enrolled in the Regular Phase of the National Flood Insurance Program prior to 1981, flood insurance rate maps were prepared for the Kitty Hawk area in 1983. There are indications that these maps are no longer accurate, especially along the ocean front. The Town will make every effort to see that accurate maps are prepared.

#### Current Policies Regarding AECs:

The Coastal Areas Management Act includes guidelines covering uses of and development in areas of environmental concern, with separate guidelines for the different categories of AEC designated by the Coastal Resources Commission. These guidelines are as follows:

In estuarine shoreline AECs, no uses are absolutely prohibited. However, any development that occurs within the estuarine shoreline AEC is to be compatible with both the dynamic nature of estuarine shorelines and the economic, biological, and social values of the estuarine system.

In ocean erodible AECs and high hazard flood AECs, the CRC's guidelines carry out their mission of protecting the line of oceanfront sand dunes by enforcing the oceanfront setback lines, keeping structures behind the crests of frontal and primary dunes, and prohibiting the relocation or

removal of these dunes and their vegetation. The guidelines for these areas include standards for construction to be designed and located to minimize damage due to fluctuations in ground elevation and wave action in a storm that has a one percent probability of being equalled or exceeded in any given year.

**Kitty Hawk's Role in Protecting AECs:** The Coastal Resource Commission's policies regarding activities in AECs are currently implemented for minor projects by the local CAMA permit officer and for major projects by the state's Division of Coastal Management and the Coastal Resources Commission.

#### **POLICIES:**

The Town of Kitty Hawk recognizes that the identification and protection of AECs is one of the central concerns of the Coastal Management Program for North Carolina. Governmental intervention in land development is necessary to assure the proper functioning of the physical and biological systems.

The Town of Kitty Hawk will cooperate fully with the appropriate State and Federal agencies to conserve, manage, and protect all the estuarine waters and their vital components.

The Town of Kitty Hawk recognizes the importance of coastal wetlands as a breeding area for fish, shrimp, and certain animals, birds, and plants. No development activity is permitted within this AEC.

The Town will work with the appropriate State and Federal agencies in protecting the integrity of all public trust waters within the Town of Kitty Hawk.

The Town will work closely with the County Health Department and with the State Division of Coastal Management in managing estuarine shorelines.

Within ocean erodible areas, the Town will maintain the line of oceanfront sand dunes by protecting the vegetation which stabilizes the dune system and by prohibiting further development in these areas.

The Town encourages the construction and installation of wooden walkways and steps to the beach, elevated observation platforms, and sand fences in areas where erosion has occurred. The Town prohibits bulkheads, jetties, groins, and similar structures along the oceanfront except where structures are in imminent danger from the Atlantic Ocean. In that case, temporary erosion control structures including bulkheads or similar structures made of sandbags or comparable materials or low sandbag groins or sandbag sediment trapping structures are allowed in accordance with CRC guidelines.

The Town will continue to enforce the standards prescribed by the National Flood Insurance Program for development.

#### Sensitive Natural and Cultural Areas

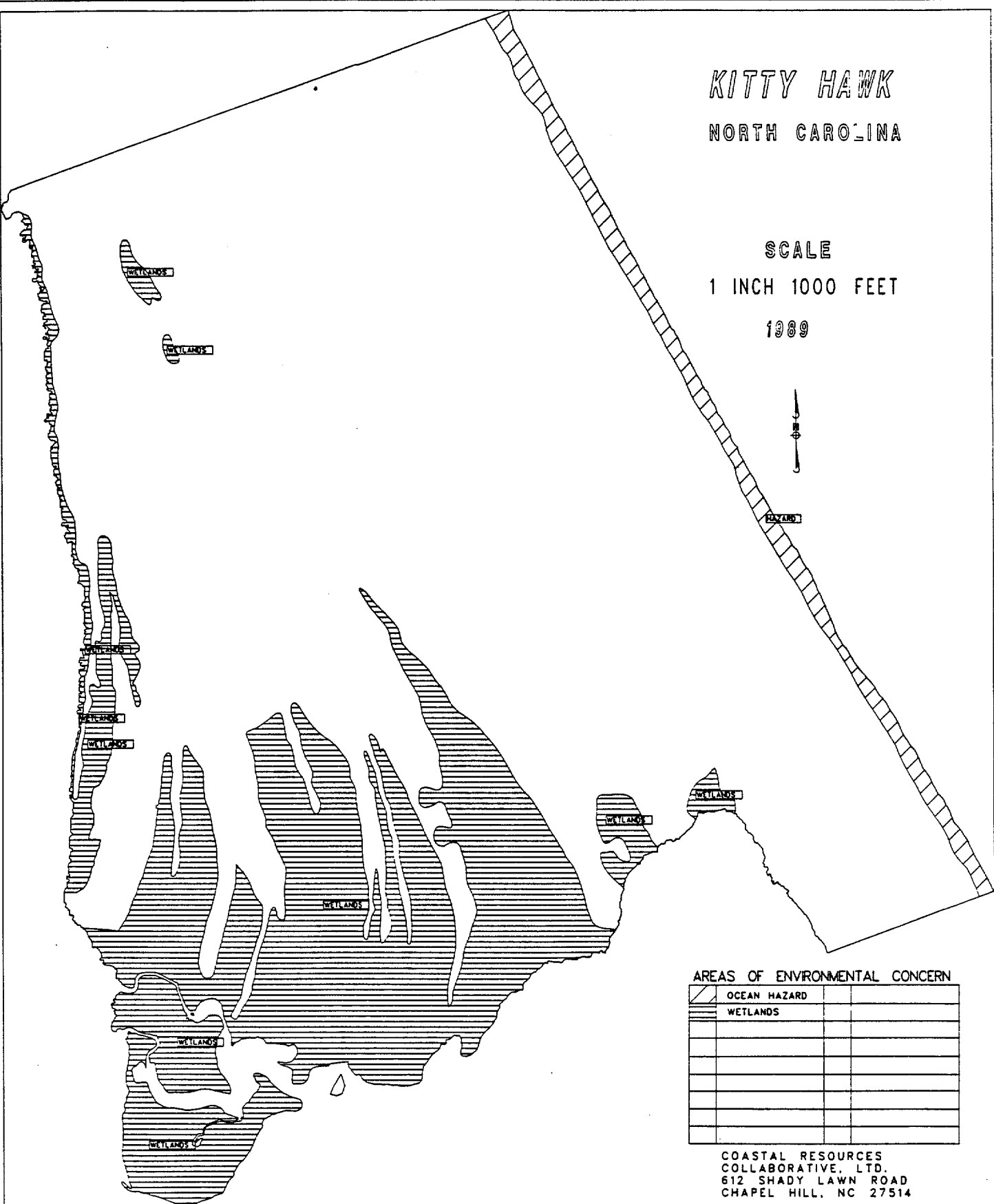
In addition to the areas of environmental concern designated under the Coastal Areas Management Act, Kitty Hawk's residents are concerned about the destruction of other natural and cultural resources, including the community's forests, habitats for plants and wildlife, and historical sites. Kitty Hawk contains a variety of sensitive and complex natural areas that support many species of plants and animals. Ospreys have been known to nest in old residual trees along the Currituck Sound. Bald eagles and brown pelicans have been known to migrate through the area. The community's dense stands of forest and wetlands play a key role in supporting this interesting spectrum of animal and plant life.

A number of historical sites hold special meaning for Kitty Hawk's residents, such as the old Coast Guard Station (the May's cottage), the Life Saving Station (which was listed in the National Register of Historic Places on October 11, 1984), the Primitive Baptist Church, the Decater-Bechtur Beachum House (in front of the Primitive Baptist Church), old cemeteries, and the Wright Brothers marker on Moor Shore Road.



Protection of these natural and historic areas is essential to maintaining Kitty Hawk's special village atmosphere. People who grow up in Kitty Hawk stay here because they like the atmosphere; people move here for similar reasons.

# KITTY HAWK NORTH CAROLINA

SCALE  
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1989



AREAS OF ENVIRONMENTAL CONCERN

	OCEAN HAZARD		
	WETLANDS		

COASTAL RESOURCES  
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CHAPEL HILL, NC 27514

**POLICIES:**

The Town of Kitty Hawk will identify the variety of natural and manmade resources within the Town and work to preserve them; encourage retention of forest growth and natural plant communities; maintain a suitable habitat for animals and birds indigenous to the area; and disturb the natural terrain as little as possible.

In the interest of preserving and conserving the natural environment, the Town has adopted a Sand Dune Protection Ordinance, a Soil Sedimentation and Erosion Control Ordinance and a special section of the Zoning Ordinance dealing with the development of Kitty Hawk Woods. It is the policy of the Town to enforce these ordinances and to encourage citizens and land owners to protect these resources on a voluntary basis.

Although there are several cemeteries, these appear to be at or near capacity. The Town will explore the possibility of expanding one or more of these or creating a new cemetery to accommodate future needs.

The Town will consider supporting a comprehensive inventory of archaeologically, architecturally, and/or historically important buildings and areas.



THE EXISTING USE OF LAND



## Chapter Five

### The Existing Use of Land

The pattern of development in Kitty Hawk is a unique mixture of resort beach and traditional Outer Banks village. Kitty Hawk Beach and Kitty Hawk Village are two distinctly identifiable parts of the Town. The Village has existed for generations; it is the center of Kitty Hawk's traditional, self-sustaining lifestyle. The Beach is newer -- most of it built in the past 20 years -- and represents the newer, resort-oriented aspect of the community.

Both Village and Beach are characterized by medium-density, single-family residential development served by small businesses. Both share a feeling that development remains on a human scale and in harmony with nature. It is a pattern and character of development that the Town's people, year around and seasonal, are quite comfortable with and want to retain.

As in most communities, detached, single-family homes constitute the greatest share of development in Kitty Hawk. Densities in Kitty Hawk Beach are somewhat higher than in Kitty Hawk Village, a result of the area's attractiveness for tourist and retirement homes. Most of the beach area's homes are only occupied seasonally. Kitty Hawk Village is an easily-defined cluster of homes and other buildings that lies away from the ocean along Kitty Hawk Road and side roads leading south toward Kitty Hawk Bay. Most of the Village's homes are occupied year-round. Newer subdivisions along Currituck Sound and in Kitty Hawk Woods are beginning to be built, but for now contain only a few scattered homes, but indications are that development of these areas is beginning to accelerate.

The Town zoning ordinance requires a minimum lot size of 80,000 square feet in Kitty Hawk Woods. The district is 1,100 acres in size which means a maximum of 300 single family homes could be built there. Recently recorded divisions of land in Kitty Hawk Woods, however, have created ten acre lots and could result in a buildout of only 70 single family dwellings.

Commercial uses are interspersed throughout the residential areas, with the majority of businesses concentrating along N.C. 12 and U.S. 158. The rest are scattered throughout Kitty Hawk Village. The businesses are primarily small, independent operations -- some new and some old -- that serve the needs of year-round residents and summertime visitors. In a similar manner, institutional uses are scattered throughout the community. These include churches, the post office, the Town Hall, and the fire station. There are several sites in the community that could be considered "industrial" in nature -- the North Carolina Power station between the Beach and the Village, the Outer Banks Contractor's operation along Kitty Hawk Road, the concrete plant (Poor Ridge Road and the barge landing on Herbert Perry Road) (see Existing Land Use Map).

Much of the land in Kitty Hawk remains undeveloped (see Existing Land Use Map). Kitty Hawk Woods, a vast maritime forest, is near the physical center of the Town. It is significant in that it contains a wider variety of species than either Nags Head or Buxton Woods, and includes species not observed again until 100 miles inland. Grassy marshes and forested swamps occupy the southwestern corner of the Town. There are also significant undeveloped stretches of back dunes west of U.S. 158. These undisturbed natural areas are a key ingredient in Kitty Hawk's character. In addition to supporting a variety of wildlife, waterfowl, and fisheries, they hold a great deal of aesthetic value that makes Kitty Hawk a special place to live.

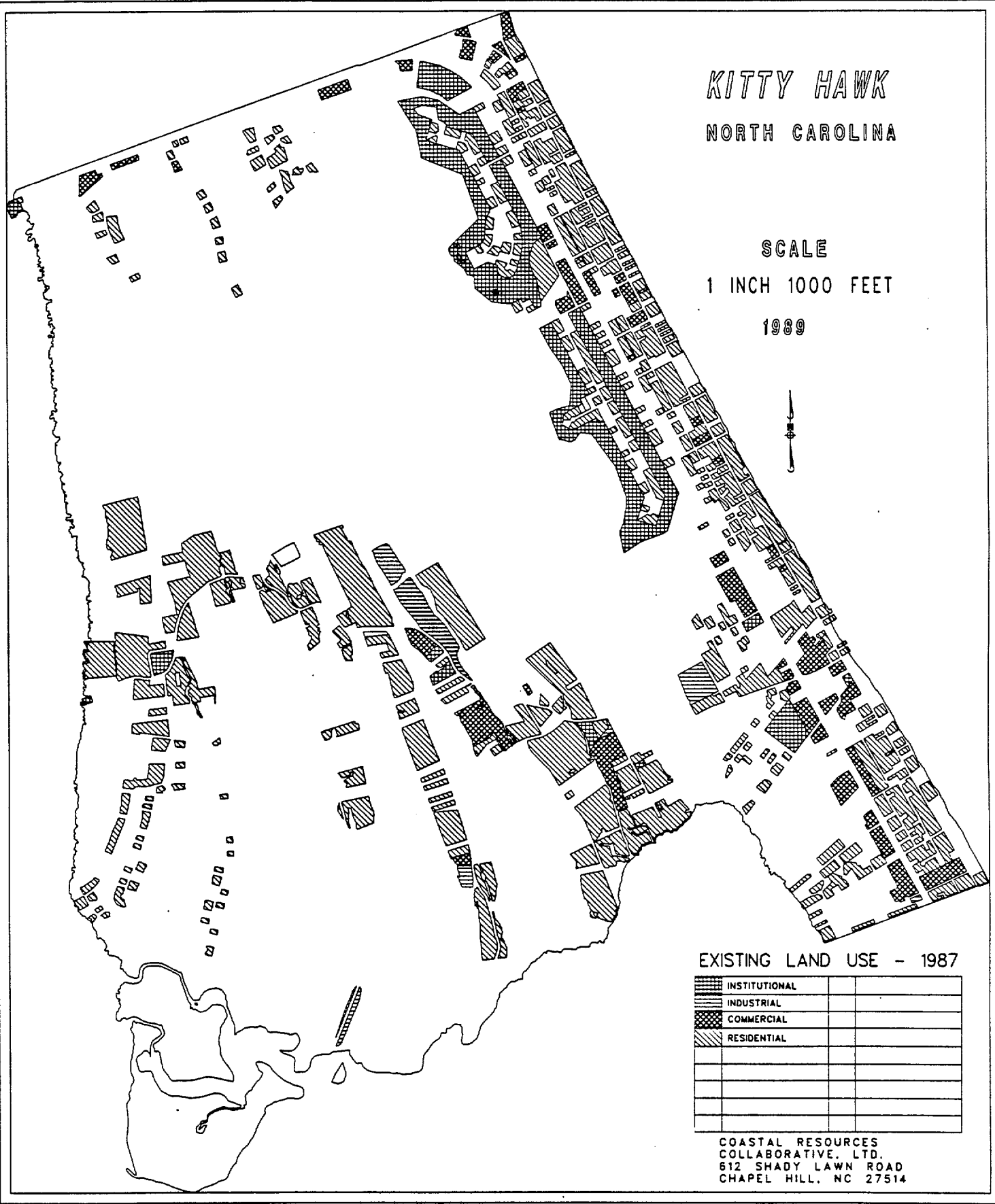
The character of the Town of Kitty Hawk is that of a low-density residential community with commercial establishments serving its residents and seasonal visitors. The community has no commercial agricultural or forestry areas, no known exploitable minerals (except sand), and no commercial fisheries. The community's residents actively pursue a variety of recreational opportunities reflecting their individual preferences: swimming, bicycling, surfing, running, and golfing.

Throughout the process of developing the land use plan, and in their responses to the Land Use Planning committee's questionnaires in 1983 and a more extensive survey done in 1987, the Town's residents expressed a commitment to preserve the low-density character of the community with limited provisions for multifamily and additional commercial development. In Kitty Hawk, "low" density ranges from less than two units per acre to no more than four units per acre.





# KITTY HAWK

## NORTH CAROLINA

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### EXISTING LAND USE - 1987

	INSTITUTIONAL		
	INDUSTRIAL		
	COMMERCIAL		
	RESIDENTIAL		

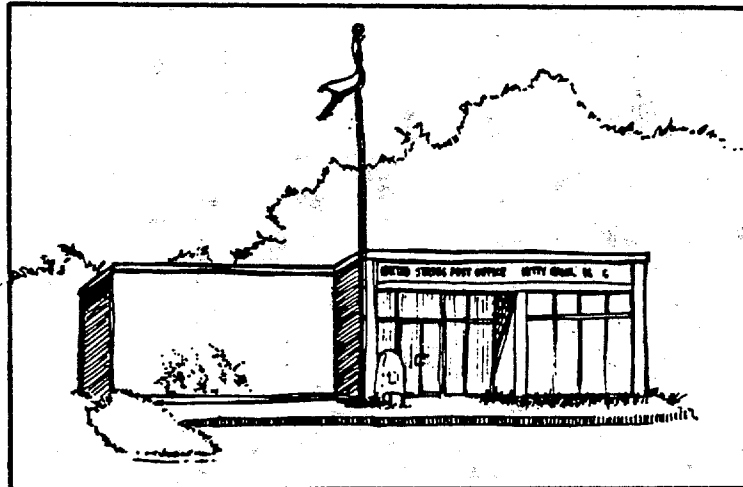
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Existing Land Use 1988

Commercial	122 acres	17%
Industrial	65 acres	9%
Institutional	185 acres	25%
Residential	<u>364 acres</u>	<u>49%</u>
	736 acres	100%

Kitty Hawk's special atmosphere comes from its combination of natural beauty and small-scale development. Maintaining this atmosphere requires not only protecting the Town's natural resources but also keeping buildings, signs, utility lines, and other structures as unobtrusive as possible in size, in design, and in the use of materials. Designing buildings and signs at a scale that overwhelms surrounding structures and natural features (dunes, trees, etc.) works against the goal of maintaining Kitty Hawk's low-density, small-scale character. Designing buildings and signs at an appropriate scale, and with appropriate materials, will do much more to enhance this character and to accentuate Kitty Hawk's natural beauty.

# CARRYING CAPACITY



## Chapter Six

### Carrying Capacity

The concept of carrying capacity comes from natural scientists concerned with wildlife who observed that if the number of animals in a given habitat exceeded the capacity of the habitat to sustain them then the quality of life of those animals deteriorated causing them to leave, to live diminished lives or to die. This is a fairly straight forward concept to apply in nature where the elements of the habitat are relatively fixed and changes that occur are readily observable, and the results relatively immediate.

In the case of the built environment the concept is instructive but not as precise. It lacks precision because the environment can be and usually is quite easily changed. If the environment lacks a crucial element, water for example, this can be remedied by sinking a deeper well by an individual or by building a water system by a community or other applications of technology and expenditures of money. It also lacks precision because humans are adaptable; we can change our habits, even our life styles if need be but not, as Rene' DuBos points out, without paying a price. The price we pay may be as simple and identifiable as paying the well driller or our water bill but is often much more complex.

It has been shown that the requisites for a successful community, one that can sustain an acceptable level of development while not diminishing the quality of the lives of the inhabitants, are many and interrelated. Some of them are basic, that is, without them life as we know it would not continue. Water is probably the best example. Without a consistent supply of potable water, life simply cannot continue.

In any built environment the elements of the capacity are generally the same. They include water, of course, and waste water treatment (because once the water has been used it must be treated, purified, before it can be used again). Land is an obvious element because without sufficient land it is not impossible, but certainly difficult to build a sustainable development for humans. Roads are essential, they provide a means for us to get around and a means of obtaining necessities such as food. Police and fire protection, education, health care and social services are other elements that are important aspects of community life.

All of these elements make a community vital but their relative importance will vary from place to place in terms of the tastes and preference of the residents, the relative scarcity of the element, and the legal authority of the community to deal with the element. The fact that Kitty Hawk has clearly expressed a preference for being a family-oriented beach community sets it apart from many other places and these preferences directly affect other elements such as the land, and how it is used. The fact that Kitty Hawk is on an island, that on the east it fronts on the Atlantic Ocean and on the west it backs up to the Albemarle Sound and that Southern Shores on the north and Kill Devil Hills on the south are barriers to expansion, make land the most precious element. The amount of land is fixed and may in fact diminish because of the eroding action of the ocean.

The legal authority of the Town to deal with certain elements is limited by state legislation and decisions made by others before the Town was incorporated. For example the authority of the Town to deal with roads is limited because many of the roads are in the state system. The water distribution system belongs to Dare County. The rules and regulations dealing with waste water treatment are promulgated by the county and the state.

In spite of these limitations, an examination of these elements can be instructive because the most basic element for Kitty Hawk, the land, is within the legal authority of the Town, and because, regardless of where the legal authority for other elements resides, decisions made by the Town with regard to the land will have an impact on those other elements. (For example, a decision to allow very high density development rather than low density would place an increased burden on the water and the road systems, would require more police protection and, especially if the buildings were tall, might require special fire fighting equipment, and so on).

The land for Kitty Hawk is the fundamental resource. The amount of land within Kitty Hawk is finite. The ability of the land to sustain development depends on several factors. To a certain extent it depends on the natural limitations of the soil but this is by no means an absolute limitation. Human beings have shown extraordinary ingenuity in adapting land to serve their own purposes. The natural limitations are in fact limitations on development only when the community decides that these limitations have value to the community and should be respected. The State of North Carolina has acknowledged the value of the coastal resource in the Coastal Area Management Act and the Coastal Management Program. The Town of Kitty



Hawk has also acknowledged the value of this resource in this and the previous Land Use Plan and the ordinances discussed elsewhere in this Plan. It is these laws, rules and regulations, plans, policies and ordinances that give real meaning to the limitations on development imposed by the land. As can be seen in the following table, much of the land in Kitty Hawk is still undeveloped.

**Undeveloped Land in Kitty Hawk**

	<u>Total Acres</u>	<u>Developed</u>	<u>Undeveloped</u>	<u>Percent Undeveloped</u>
Commercial	777.4	267.2	510.2	66
Residential	4,569.9	815.9	3,754	82

The development that occurs on this land will be the result of many factors, one of the most significant being the existing Zoning Ordinance. The following table shows the number of dwelling units that may be built as a matter of right under the terms of the existing Zoning Ordinance on land zoned for residential uses.

**Dwelling Units Allowed in Residential Zones  
by Existing Zoning Ordinance**

	<u>DU/Acre</u>	<u>Acres</u>	<u>DU</u>
BR-1	2.9	1029.05	2984
BR-2	4	121.79	487
BR-3	4	243.11	972
VR-1	2	1877.53	3755
VR-2	4	81.64	327
VR-3	4	45.10	180
KHW	.54	1171.72	632
		—————	—————
		4569.94	9337

Experience has shown, however, that the actual development that occurs is less than the maximum allowed. To factor this in, three scenarios were used:

#### Scenario Number One

Assuming that all of the land in residential zones is built to the maximum allowed density there would be 9,337 dwelling units in Kitty Hawk.

#### Scenario Number Two

If it assumed that all of the undeveloped land in residential zones (3,754 acres) is built to the average density allowed by the zoning ordinance (2 DU/Acre) the number of new dwelling units that might be expected in Kitty Hawk is 7,508. If the estimated number of existing dwelling units (2,000) is added to that, the total number of dwelling units in Kitty Hawk would be 9,508 or virtually the same as Scenario Number One.

#### Scenario Number Three

If it is assumed that a large part (80%) of the wetlands and areas with very severe soil limitations (1,500 acres) are not built, then only 2,254 acres would be built and if it is assumed that this area is built to the average density allowed by the zoning ordinance (2) then the total number of new dwelling units that might be expected in Kitty Hawk is only 4,508. If the existing units (2,000) are added under this scenario the total number of dwelling units in Kitty Hawk would be only 6,508.

Using two of these scenarios (one and two are virtually the same) population or capacity of the land in Kitty Hawk to absorb development may be projected any number of ways, the following were used:

- A. Assume the national average of 2.6 persons occupy each dwelling unit year around.
- B. Assume that (a) half of the dwelling units are occupied by 2.6 people year around and (b) half are occupied in the summer by 6 people.
- C. Assume that (a) one-third of the dwelling units are occupied by 2.6 people year around and (b) two-thirds are occupied in the summer by 6 people.

Application of these assumptions to the two scenarios yields the following:

Scenario Numbers One and Two:

A.	2.6 people x 9,500 dwelling units	= 24,700
B.	2.6 people x 4,750 dwelling units	= 12,350 year around
	6 people x 4,750 dwelling units	= <u>28,500</u> summer
		40,850 Total summer population
C.	2.6 people x 3,167 dwelling units	= 8,234 year around
	6 people x 6,333 dwelling units	= <u>37,998</u> summer
		= 46,232 Total summer population

Scenario Number Three

A.	2.6 people x 6,508 dwelling units	= 16,921
B.	2.6 people x 3,254 dwelling units	= 8,460 year around
	6 people x 3,254 dwelling units	= <u>19,524</u> summer
		27,984 Total summer population
C.	2.6 people x 2,619 dwelling units	= 6,809 year around
	6 people x 4,339	= <u>26,034</u> summer
		32,843 Total summer population

These assumptions and projections yield a range from a low of 6,809 people in the off season to a high of 46,232 people in the summer.

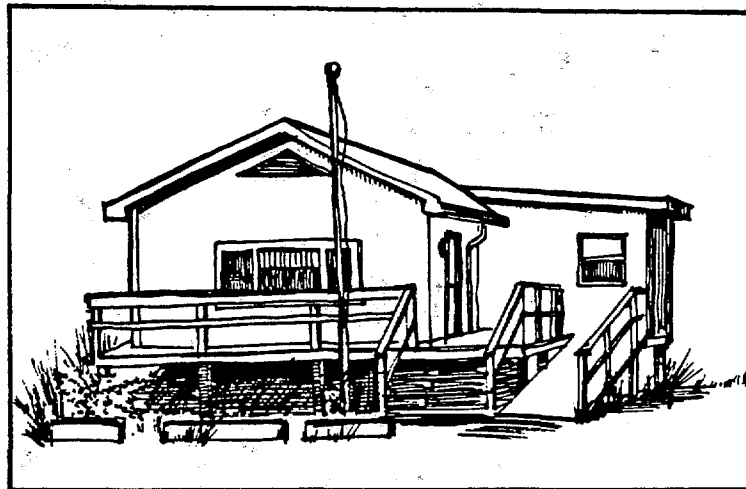
Unless preferences change and the existing regulatory regime that controls the density of development changes, the reality lies somewhere in between.

In addition to residential development, commercial development will take place. The following table shows the amount of land on which commercial activity can take place under the existing Zoning Ordinance.

Zone	Developed	Vacant	Percent Vacant
BC-1	130.4	78.9	38%
BC-2	31.7	27.04	46%
BC-3	0	60.00	100%
BH-1	16.51	25.92	61%
BH-2	0	8.05	100%
VC-1	21.85	36.18	62%
VC-2	38	149.42	79.7%
VC-3	<u>29.74</u>	<u>124.68*</u>	81%
	267.2	510.19	
	34.4%	65.6%	(*mostly marsh)

As can be seen from the table above, much of the land is vacant, but it is hard to determine if this is an adequate supply since some commercial land has already been used for residential purposes, and the existing Zoning Ordinance allows further residential uses in commercial districts as conditional uses. This provision makes it difficult to make sound judgments about the need for commercial areas and builds a certain amount of uncertainty into the population projections since by allowing residential uses in commercial areas the population figures could rise by a substantial amount.

COMMUNITY FACILITIES AND  
SERVICES



## Chapter Seven

### Community Facilities and Services

Public Facilities are essential for any community but for Kitty Hawk they are of even more importance because of the environmentally sensitive nature of the barrier island on which Kitty Hawk is located. In addition, the fact that Kitty Hawk is insular and cannot expand, gives a special perspective to these issues. The issues discussed in this Chapter are: water, wastewater treatment, roads, recreation and beach access, police and fire protection, solid wastes, schools and libraries, health care and litter, noise and insect control.

#### Water Supply

A supply of water which is consistently safe for drinking and other human needs and is adequate in pressure and amount for fire fighting is necessary for the continued existence of the Town. A source of supply adequate to serve the future needs of the Town and a distribution system that will deliver water to developing areas is necessary to the future development of Kitty Hawk. Thus it is necessary that the existing water system and supply be maintained, improved and expanded. Since the Town is dependent on the county water system, it is of great importance that the county have the interest of Kitty Hawk very much in mind when making decisions about the water system. In the summer of 1989 Dare County will extend the water system into under-served areas and locations where growth is anticipated.

#### POLICIES:

The Town of Kitty Hawk will attempt to project the community's future water needs in relation to its growth potential and will communicate that information to Dare County.

The Town of Kitty Hawk will continue to encourage Dare County to modify the existing water system into "loops" which will help to maintain service in the case of a malfunction in the system.

The Town will amend the Subdivision Ordinance to require installation of fire hydrants in all new developments.

The location of new water wells shall be approved pursuant to the rules and regulations of the appropriate agencies.

#### Wastewater Treatment

As noted in Chapter Four, nearly all of the homes and businesses in Kitty Hawk rely on septic tank and drainfield systems to treat and dispose of wastewater even though most of the soils are not well-suited for them. The Dare County Health Department uses standards adopted by the State of North Carolina's Department of Human Resources in overseeing and permitting the use of septic systems in Kitty Hawk. These standards cover the design and location of septic tanks and drainfields and are currently believed to be adequate to meet Kitty Hawk's needs and concerns.

In addition to septic systems, package treatment plants are gaining popularity in North Carolina's coastal communities. Such plants are usually constructed and maintained by developers to service residential subdivisions and condominium projects. Unless a package treatment plant is properly maintained and continuously monitored, it can easily break down, inconvenience the property owners who depend on it, and threaten public health. An improperly managed plant can also become a financial liability to the Town if the developer or homeowners abdicate responsibility for operating it. Currently there are no such plants, however, the Town of Kitty Hawk will avoid these problems by obtaining strong assurances from developers and homeowners' associations that package treatment plants will be properly managed and maintained.

#### POLICIES:

It is the policy of the Town to actively seek the cooperation of the Dare County Health Department in assuring safe septic tank installation and operation in Kitty Hawk.

The Town of Kitty Hawk will require developers and homeowners' associations proposing and constructing package treatment plants to file with the Town a copy of the management contract between the developer and operator, the package wastewater treatment plan, the rate structure, an engineer's statement that

# KITTY HAWK NORTH CAROLINA

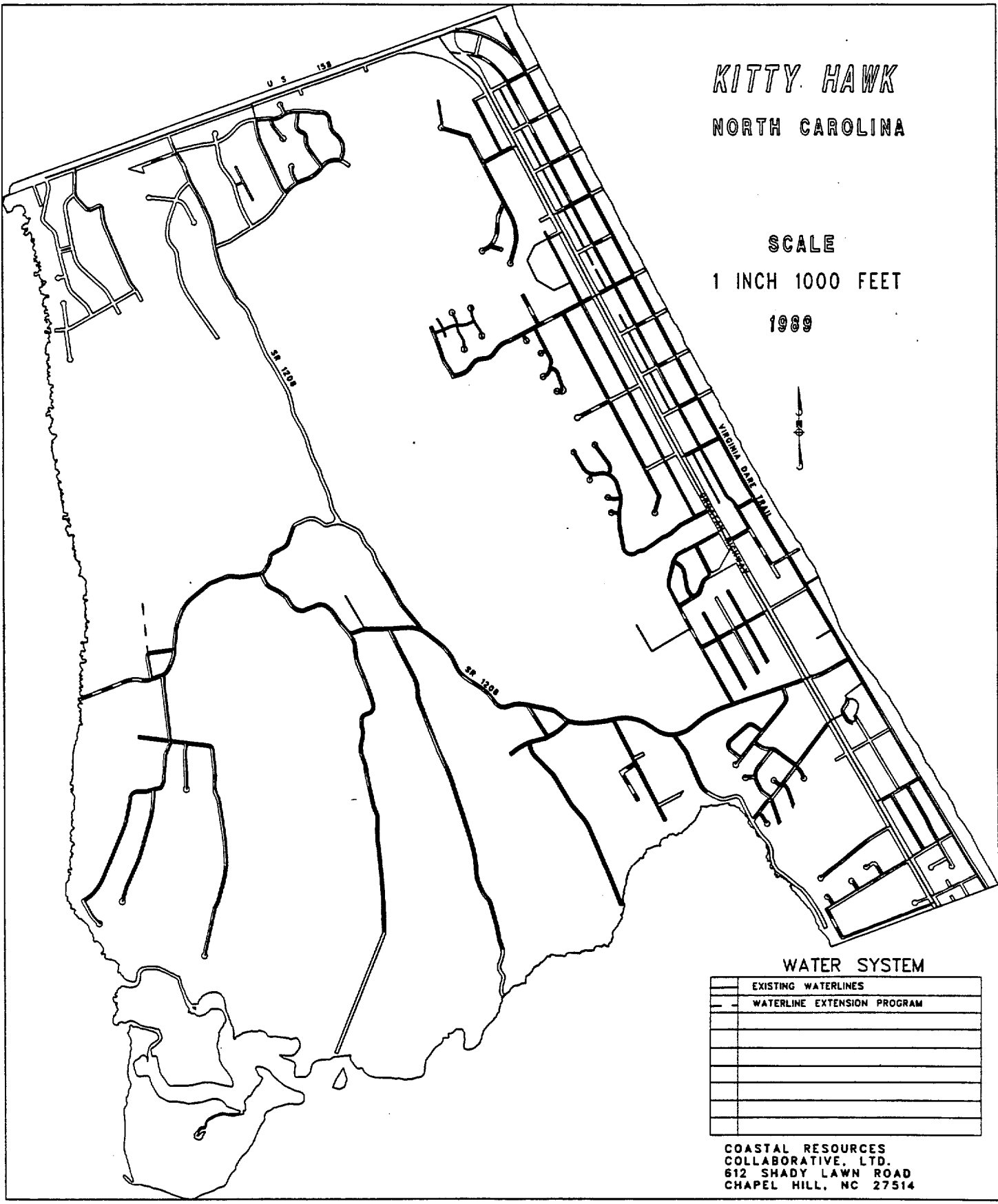
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## WATER SYSTEM

	EXISTING WATERLINES
	WATERLINE EXTENSION PROGRAM

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CHAPEL HILL, NC 27514





the rate structure's minimum number of users will generate enough revenue to maintain and operate the system, and a bond or other written assurance that such facilities will be properly and continuously maintained.

### Roads

Kitty Hawk's roads are an integral part of the community's physical structure and an important factor in the timing and location of future growth. Insuring that they are adequately constructed and maintained is an important function of local government. There are several different road systems in Kitty Hawk (see map). The major roads are part of the State highway system and are maintained by the State. Some roads are dedicated to the public and maintained by the Town of Kitty Hawk. Still other roads are privately owned and privately maintained.

Any road must meet the State's construction standards in order to be included in the State system. Once the arrangements are made to improve a street not in the system, the Town can petition the N.C. Department of Transportation to accept responsibility for maintaining it. In addition to state-maintained roads, there are other roads that are dedicated to the public and maintained by the Town. Some funds for maintaining these roads come from the N.C. Department of Transportation through the Street Aid Allocation Program (Powell Bill) which provides funds to municipalities for maintaining public, non-state roads. Under this formula entitlement program, Kitty Hawk receives funds each year based on the number of miles of public, non-state roads in the Town as well as other factors.

A major tourist attraction is the ocean beach. There is often serious traffic congestion on the streets near the beach and visitor parking is very limited. The Town, in the development of the thoroughfare plan, will give consideration to encouraging alternative means of getting to the beach, such as bike trails and walking paths.

The Beach Central Communications System makes it possible for someone to call 911 to report police, fire, and emergency medical needs to a Central Dispatcher for immediate action. Everything north of the Oregon Inlet bridge to the Currituck County line, and west to the Tyrell County line in Dare County is included in the system.

The System is funded as part of the Dare County budget. It operates out of its own headquarters in back of the Kill Devil Hills Fire Station.

Kitty Hawk has instituted a uniform street naming and numbering system in cooperation with other Dare County communities that avoids duplicate street names and provides the basis to help implement the Beach Central Communications System.

There is another problem of critical importance, the Beach Road. Certain portions of the beach, especially in the area of the old Life Saving Station, have been eroding at a rapid rate. If the erosion continues unabated, the road will be breached before long. The Town would prefer to keep the road in its present location because it is an important link in the thoroughfare system of Kitty Hawk Beach. However, the Town is opposed to the use of extraordinary structural means (bulkheads and groins) to try to prevent ordinary erosion and recognizes the limitations of beach nourishment.

#### **POLICIES:**

Recognizing that there is a strong possibility that portions of the Beach Road may be destroyed by erosion, and that another north-south road in Kitty Hawk Beach is necessary in any case, the Town will take whatever steps are necessary and appropriate to make Lindberg Avenue a viable north-south thoroughfare which could serve as a replacement for the Beach Road if necessary. In order to insure that this remains a viable option, the necessary right-of-way will be acquired as soon as possible.

The Town is working with the N.C. Department of Transportation and the beach communities to formulate a plan for a thoroughfare system which will move automobile traffic expeditiously and safely. Because of the commitment of Kitty Hawk to retain its character as a family beach community, the thoroughfare plan should actively consider modes of transportation other than the private automobile, e.g., walking, bicycles, small busses, etc., in an effort to make Kitty Hawk not completely dependent on the automobile for all movement.

The Town will actively seek to develop a system of bicycle trails and lanes.

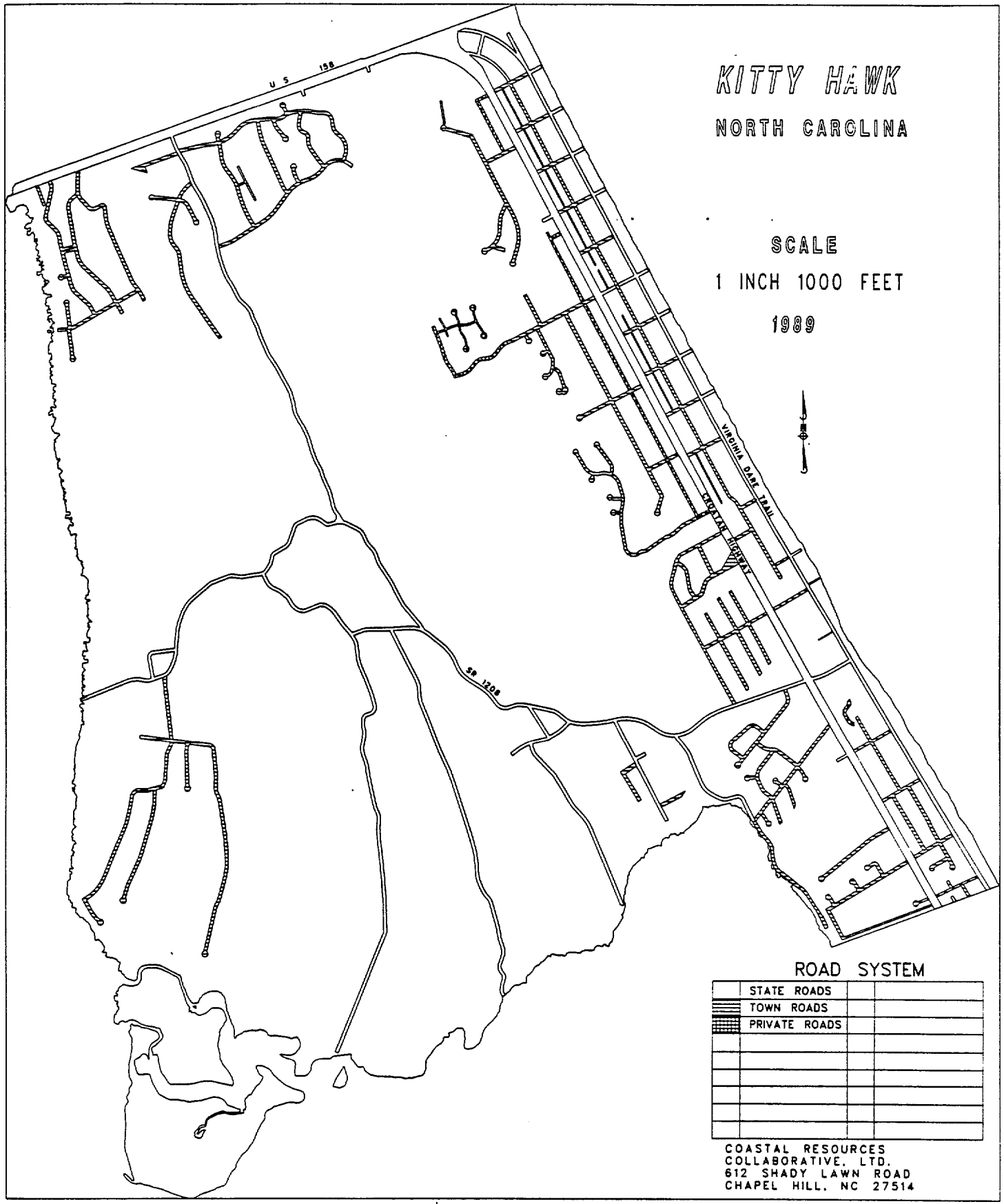
The Town will continue to give full support to the Beach Central Communications System.

It is the policy of the Town of Kitty Hawk to encourage the use of names indigenous to the Outer Banks when choosing names for roads and other highly visible objects, public and private.

# KITTY HAWK

## NORTH CAROLINA

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1989



### ROAD SYSTEM

	STATE ROADS	
	TOWN ROADS	
	PRIVATE ROADS	

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Moor Shore Road and any adjacent right of way will be retained as a public right of way for use by the public in gaining access to Kitty Hawk Bay and other legitimate public purposes.

Main Road should be improved but only with as little damage as possible to the character and natural environment of Kitty Hawk Woods.

The Town will encourage the North Carolina Department of Transportation to restore the Mile Posts to their former prominence so that they can once again be used as location indicators.

Any drains, culverts, bridges and other stormwater management devices which are to be replaced because of damage or road reconstruction will be of an appropriate size to accommodate projected demand to be placed upon them.

#### Recreation and Beach Access

With the Atlantic Ocean, Currituck Sound, and Kitty Hawk Bay at its doorsteps, the Town of Kitty Hawk is blessed with abundant opportunities for recreation. Recreation in the community is strongly tied to the use of these bodies of water, with the most popular recreational activities being fishing, boating, swimming, sunbathing, and surfing. In addition, there is an 18-hole golf course within the Town and baseball, football, and basketball facilities at Kitty Hawk Elementary School in neighboring Southern Shores.

Surfing in Kitty Hawk has grown to become one of the most popular seasonal recreational sports. The Town has enacted a surfboard leash ordinance and, with pledges of cooperation from the surfers themselves, is committed to enforcing it for the safety of surfers and swimmers alike.

There are several State roads at either end of Currituck Sound, Kitty Hawk Bay, and along some canals. These areas offer limited recreation at the present time, however with good planning, they could become tremendous assets to the community. They could support a variety of recreational activities: small parks, picnic facilities, boat ramps, wading and swimming areas, and crabbing and fishing areas. In some areas, periodic dredging of the Sound and Bay may be necessary to enable even small craft to adequately reach them from the canals, streams and shores of Kitty Hawk. Fundamental planning principles indicate that neighborhoods should include amenities such as parks and bike paths, especially on the sound and in wooded areas.

There are 13 public beach access points along Kitty Hawk's four-mile oceanfront. Limited parking, however, is available at only four of these sites and this presents problems to which the Town is currently seeking solutions. The Town has erected uniform, brightly-colored signs (provided by the North Carolina Division of Coastal Management) at each access point. The Town has also built and maintains a public bath house with improved parking lot and provides life guard protection.

In maintaining any recreational facilities, the Town can expect to face problems of litter, especially at those sites which are most actively used. Littering can ruin the very qualities of beaches, parks, and other recreational areas that make them so enjoyable.

#### **POLICIES:**

The Town believes the recreational activities provided in this Plan are necessary for the health and welfare of its citizens and visitors and that certain recreational uses of land are appropriate to enhance the health and welfare of the Town. The Town will allow outdoor and indoor sporting activities as set forth in the zoning ordinance as conditional uses provided the activity is harmonious with the environment, promotes the family orientation of the community and provided it is not incompatible with existing land uses of adjoining property owners.

The Town does not want to promote and encourage amusement parks, carnivals and carnival rides, or go-cart, motorcycle, or terrain vehicle tracks or any recreational use which creates noise loud enough to be heard beyond the property lines of the property or which causes significant amounts of light to be visible off the premises and which, by reason thereof, constitutes a traffic hazard or is not consistent with the public health and welfare of the adjoining property owners.

The Town will review and amend its zoning ordinance to allow specific sporting activities as conditional uses and establish the standards and conditions prerequisite to the use as well as designate the districts in which the sporting activities may be conducted.

The Town will formulate an ocean beach and sound access plan, with due consideration to the future growth of its year-round and seasonal populations, and will provide adequate beach access and other recreational facilities for its residents and visitors.

The Town will study the need and potential for future recreational facilities on the soundside, bike paths, and additional public beach access points and parking areas.

The Town will create a study committee to plan for, develop, and maintain adequate recreational facilities.

The Town will improve and maintain all public access areas.

To protect public beach access areas from erosion, the Town should keep the areas well-vegetated, stagger sand fencing, and construct walkways across dunes.

The Town will enforce its dune protection ordinance to keep people from weakening the barrier dunes as well as those dunes west of U.S. 158.

The Town will enforce its ordinance to control littering and dumping at public recreation areas.

The Town will continue to place trash receptacles at the most actively used recreation areas.

The Town will acquire by donation or purchase additional useful beach access areas and related parking facilities when property becomes available, giving priority to properties which are or may become unbuildable due to natural causes.

The Town will apply for State and Federal funds whenever it is available for acquiring, improving, or maintaining beach access sites, related parking areas, and other public recreation facilities and will cooperate with the State in every way possible to make beach accessways available and operational.

The Town will work with Kill Devil Hills, Southern Shores, Dare County, and private organizations leading to funds for recreation facilities.

When necessary and appropriate, Currituck Sound and Kitty Hawk Bay should be dredged in limited areas in accordance with relevant State and Federal laws to permit access to those bodies of water from the shores, streams, and canals of the Town of Kitty Hawk.

Land is finite in Kitty Hawk. There will never be more than there is now. In fact, because of the constant change on barrier islands, there will probably be less. Public need for land will increase as the Town continues to grow. It is the policy of the Town to accept all feasible offers of donated land and to explore with due diligence all opportunities to buy land at "bargain sales" and to explore opportunities to obtain grants or gifts to be used to buy land.

### Police and Fire Protection

The Town established its own police department after it incorporated in 1981 and has developed it into a viable law enforcement unit to provide Kitty Hawk's citizens and visitors with appropriate police services.

The Town has provided funding for the police department to enter into a contract with the Commission on Accreditation for Law Enforcement Agencies, Inc. and the department has initiated self-assessment programs to determine how the department presently complies with national standards for agencies of its size.

It is the policy of the Town of Kitty Hawk to continue to give high priority to providing the best possible police services such as patrolling of residences, criminal investigations, traffic management and other police functions. To facilitate this policy, the Town will aid the department in meeting the standards set by the Commission on Accreditation for Law Enforcement Agencies, Inc. and thereby achieve the goal of national accreditation of the department.

During the past three years, the police department has engaged in a total of 15,443 actions:

1986	4,442
1987	5,072
1988	<u>5,929</u>
	15,443

Fire protection is furnished under a contract between the Town and the Kitty Hawk volunteer fire department, a non-profit corporation. The Town has established an account for special tax funds collected; the fire department submits an annual budget to the Town; all funds paid by the Town to the fire department "shall be used to provide fire protection and to pay other legitimate fire protection expenses including principal and interest on ... (a) loans from Farmers Home Administration" and the "fire department shall provide the necessary equipment and personnel for furnishing adequate fire protection as determined by the North Carolina Department of Insurance, Fire and Rescue Service Division, for all property located in the Town of Kitty Hawk, and it will furnish said fire protection free of charge and in an efficient and workmanlike manner."

The fire department has an ongoing training program for its 25-30 volunteers who meet every Tuesday night. The organization elects its officers and fire chief. (The current chief is a life-time resident of Kitty Hawk who served as a fireman on the aircraft carrier Kitty Hawk and is the fourth chief since its incorporation).

The use of modern equipment coupled with the training and efficiency of the volunteers resulted in the state insurance commission granting a decrease in fire insurance rates.

During the past five years the fire department has responded to 309 calls:

1984	36
1985	42
1986	69
1987	71
1988	91

In addition to the funding obtained by ad valorem taxes the fire department is supported by a strong and productive auxiliary. It sponsors an annual "pig-pickin'" event which brings out supportive citizens for a turkey shoot, bingo, auction, pony rides, horse-shoes and a big outdoor barbecue. Their success has resulted in the supply of fireman's uniforms, the building of an addition to the fire station for sleeping quarters and other supplies.

#### **POLICIES:**

It is the policy of the Town to continue to furnish the best possible police services and achieve the goal of national accreditation of the Department.

The Town, in cooperation with the volunteer fire department, will continue the ongoing effort to use volunteer firemen to ensure maximum fire protection.

The Town, in cooperation with Dare County, will maintain an up-to-date fire hydrant location map and ensure that all hydrants are visible, accessible, and in good operating condition.

The Town will continue to require the installation of additional hydrants in new subdivisions and, as warranted, in the expansion of the county water system.

The Town will continue to seek the expertise of the police and fire department in the writing of ordinances and appropriate development matters.



## Schools

Kitty Hawk is served by the Dare County Public School System. Students in Grades K through 5 attend Kitty Hawk Elementary School, located on U.S. 158, in Southern Shores; students in Grades 6 through 8 attend Manteo Middle School; and students in Grades 9 through 12 attend Manteo High School, on Roanoke Island.

Kitty Hawk Elementary School's current enrollment is 595, and the nearly-completed building enlargement will bring the capacity to 700 students (based throughout on 23 pupils to a classroom). This figure will be reduced when the Elementary School on the Baum Tract in Kill Devil Hills is completed, allowing more room for Kitty Hawk and Southern Shores students in the Kitty Hawk Elementary School.

The Manteo Middle School is considered up to capacity with its current enrollment of 525. The Manteo High School has 640 pupils enrolled, with a capacity of 675.

Phase I of the Elementary and Middle School being built on the Baum Tract is scheduled for completion in 1990. Capacity for the Elementary School is to be 475, and for the Middle School, 570.

It is assumed that students living in Kitty Hawk and Southern Shores will attend the Middle School being built on the Baum Tract. It is impossible, at this time, to accurately project the student population for the next five years. But a high school in the same location, to help cope with future needs, is under consideration.

The Kitty Hawk Elementary School is available for public meetings and a range of other community functions. It might also be used as a County Emergency Shelter, during and after violent storms and other disasters.

## POLICIES:

The Town believes that the county's present public school system is adequate to serve Kitty Hawk's present needs and supports the continued study of the system to ensure that it does not fall behind.

The Town will continue to allow a diversity of educational experience by permitting private schools which are able to satisfy restrictions imposed by the Zoning Ordinance.

## Library

The Dare County Library's Bookmobile visits the Kitty Hawk Methodist Church once a month. It goes to the Baum Center, in Kill Devil Hills, twice a month. There are book drops in several nearby locations, and "Home Service" is available for people who cannot avail themselves of the library otherwise.

Full library and research services are available at the Library in Manteo, which is also used by local residents for community meetings and cultural events. The Library has had a branch in Hatteras since 1976. Bids have just been let for a new branch library in the Baum Tract, in Kill Devil Hills, which should open the latter part of 1989 or early 1990.

## POLICIES

The Town believes that decentralization of the County's library system is warranted and supports the concept of a library in the beach communities.

The Town encourages the installation of a "book drop" in Kitty Hawk.

## Health Care

Kitty Hawk is blessed with ready access to an expanding array of health services: Kitty Hawk Medical Center; North Beach Medical Center in Southern Shores, affiliated with Albemarle Hospital, in Elizabeth City; Outer Banks Medical Center in Nags Head, leased from the County and operated by Chesapeake (Va.) Hospital and open 24 hours a day.

In addition to our resident physicians, a number of non-resident specialists have office hours at the North Beach Medical Center, certain days of the week. We now have a number of practicing dentists available in the area, including one in Kitty Hawk. There are also several optometrists, chiropractors, and pharmacies, and a radiologist. Britthaven Outer Banks, a private nursing home, is in Nags Head.

Basic health services are available to all residents at the Dare County Health Department in Manteo. And emergency medical cases, county-wide, can be evacuated by ambulance or helicopter to hospitals in Elizabeth City and/or Virginia's Tidewater area, under the supervision of the County's Director of Emergency Services.

**POLICIES:**

The Town of Kitty Hawk supports and encourages the ongoing county-wide effort to provide additional 24-hour emergency medical services and a regional health care facility.

The Town encourages mental and physical health care professionals to locate in the community.

**Solid Waste**

As Kitty Hawk's population increases, problems with the sanitary storage, collection, and disposal of garbage becomes more critical.

The Town currently has ordinances setting standards for solid waste containers for subdivisions, mobile home parks, trailer courts, and businesses. Article 10-6 of the 1982 Dare County Land Use Plan sets standards for the collection and disposal of solid waste:

1. Solid waste may not be leaked or spilled along roads.
2. It may be collected only from specified geographic areas.
3. It may be burned in incinerators of a type approved by the State Health Director.
4. It may be buried in a sanitary landfill that is properly designed, operated, and equipped.

Dare County currently collects garbage within the Town of Kitty Hawk and operates a sanitary landfill on the mainland near East Lake for the disposal of all solid waste generated within the County, including the solid waste generated by over 1.5 million people who visit Cape Hatteras National Seashore each year.

Unfortunately, this landfill's distance from the beach communities (which have the County's highest seasonal population) makes high transportation costs inevitable.

The Town of Kitty Hawk could engage the services of a private collector to haul solid waste, but there are few private collectors equipped to handle the Town's solid waste.

The Town could set up its own sanitation department. However, the cost would be prohibitive. Also, there is no site in Kitty Hawk suitable for a sanitary landfill.

This leaves the Town of Kitty Hawk no viable alternative but to continue contracting with Dare County for trash collection and disposal.

#### POLICIES:

The Town of Kitty Hawk will continue to contract with Dare County for solid waste collection and disposal and to tax residents to cover door-to-door collection as long as this system provides efficient, economical service.

The Town will pursue the adoption of policies and ordinances regarding cleaning up existing unauthorized dumps and the removal of derelict automobiles and other unsanitary, dangerous, and unsightly conditions.

#### Litter, Noise, and Insect Control

**Litter and Dumping:** A few springs ago, a wry but perceptive resident wrote a letter to the editor of a local newspaper. He said, in essence: "Now that the resort season is starting, we can go back to blaming roadside litter on the tourists."

The tourists do contribute their share, but the basic fault lies in ourselves and not in our visitors. The indiscriminate dumping of trash and garbage along such scenic routes as Main and Moor Shore Road in the recent past reached shocking and hazardous proportions.

**Noise:** Kitty Hawk is primarily a residential area for both year-round citizens and seasonal visitors. With some exceptions, the sources of unseemly noises and related abuses are readily identifiable. The Town has a noise ordinance which it continues to enforce.

**Insects:** Among Kitty Hawk's lesser blessings is an environment conducive to massive insect infestation, particularly by mosquitoes. Given free rein, this infestation is a nuisance to both residents as well as many businesses and services that are the community's underlying economic base.

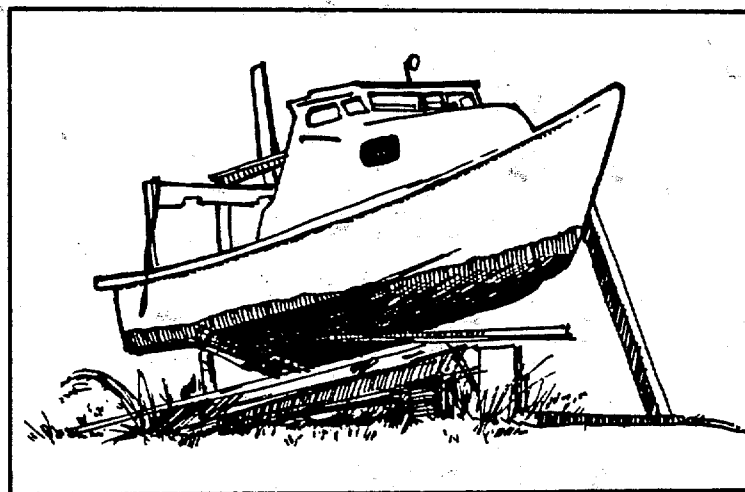
**POLICIES:**

**The Town will vigorously enforce its anti-dumping and anti-littering ordinance.**

**The Town will vigorously enforce the noise abatement ordinance.**

**The Town, with due regard for environmental considerations and in cooperation with County authorities, will encourage practical insect controls.**

MITIGATING THE IMPACTS OF  
COASTAL STORMS



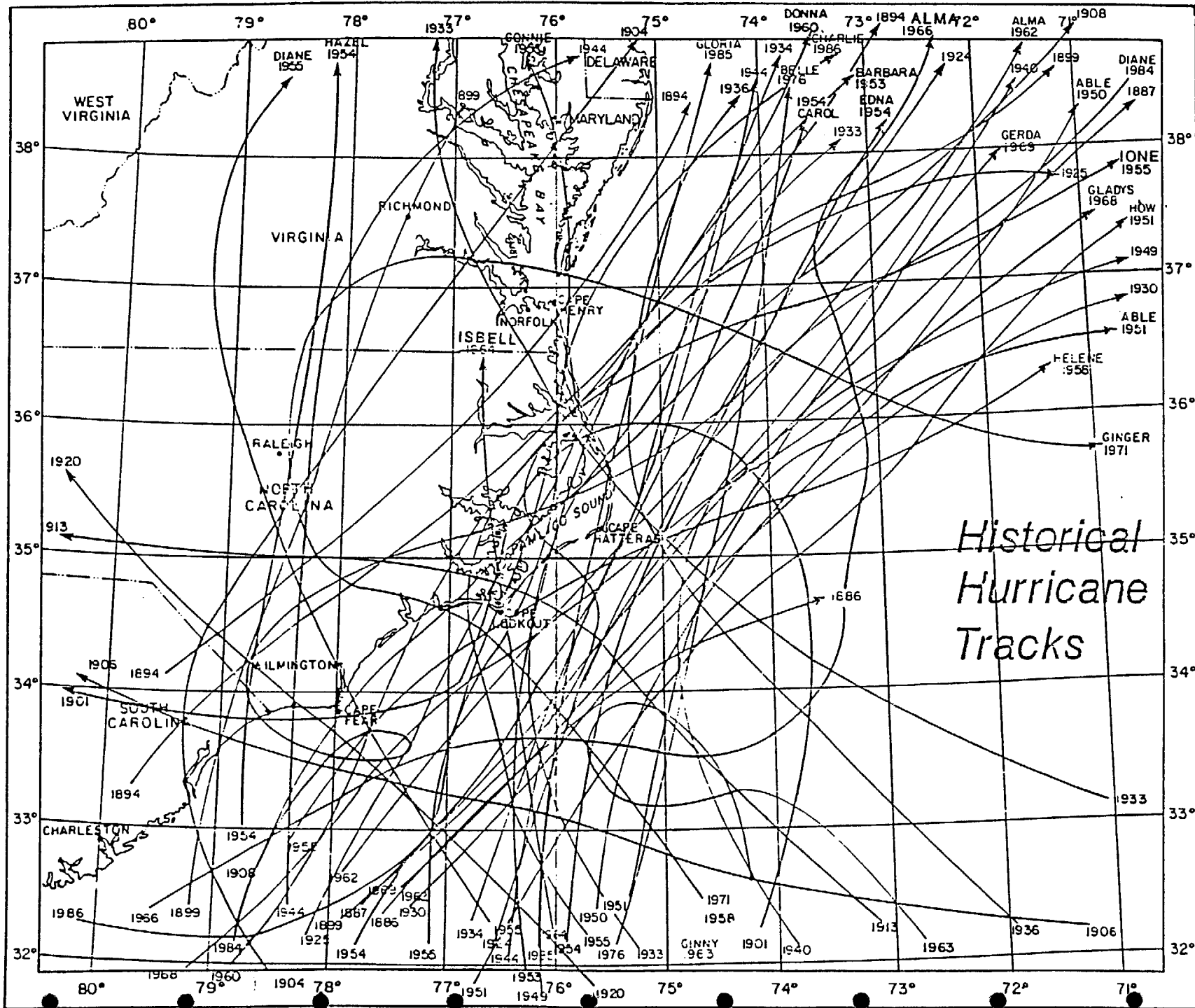
## Chapter Eight

### Mitigating the Impacts of Coastal Storms

#### Coastal Storms

It is recognized that living on a barrier island is not without risks. A major risk is from coastal storms of which there are three types: hurricanes, nor'easters and winter storms. Tornadoes are also not uncommon especially in conjunction with hurricanes. A hurricane is a severe tropical cyclone with winds exceeding 74 miles per hour originating in the tropical regions of the Atlantic Ocean or Caribbean Sea, traveling north, northwest or northeast from its point of origin and usually involving heavy rains. Over the past one hundred years at least forty-six hurricanes have directly affected eastern North Carolina (see Hurricane Tracks Map). The comparative strength of a hurricane is commonly described by using the Saffir/Simpson Scale (see following table). A nor'easter is a storm or gale from the northeast with strong winds and often heavy rains. A tornado is a rotating column of air usually accompanied by a funnel-shaped downward extension of a cumulonimbus cloud whirling at speeds of up to 300 miles per hour.

The characteristics of these storms which are of special concern to residents of the Outer Banks are high winds and flooding. Flooding is caused by heavy rains, by the rising sea level accompanying a low pressure system, by the winds pushing the sea on to the shore and into the bays and sounds, and then by the retreat of the water from the bays and sounds onto the back side of the barrier islands. The movement of the water onto and off the island, often with great speed and force, erodes the island carrying sand with it when it leaves the island. This flooding and erosion will be exacerbated by the rise in sea level expected to result from the global climate change attributed by many to the so-called "greenhouse effect."





SAFFIR/SIMPSON HURRICANE SCALE WITH  
CENTRAL BAROMETRIC PRESSURE RANGES

<u>Category</u>	<u>Central Pressure</u>		<u>Winds (mph)</u>	<u>Surge (ft)</u>	<u>Damage</u>
	<u>Millibars</u>	<u>Inches</u>			
1	>980	>28.94	74-95	4-5	Minimal
2	965-979	28.50-28.91	96-110	6-8	Moderate
3	945-964	27.91-28.47	111-130	9-12	Extensive
4	920-944	27.17-27.88	131-155	13-18	Extreme
5	<920	<27.17	>155	>18	Catastrophic

The Saffir/Simpson Hurricane Scale assumes an average, uniform coastline for the continental United States and was intended as a general guide for use by public safety officials during hurricane emergencies. It does not reflect the effects of varying localized bathymetry, coastline configuration, barriers, or other factors that can greatly influence the surge heights that occur at different locations during a single hurricane event.

Winds, often of destructive force in and of themselves, that is without flooding and wave action, are a part of virtually every coastal storm.

#### Vulnerability of Kitty Hawk to Coastal Storms

A key question, quite obviously, is how much of Kitty Hawk is vulnerable to coastal storms? The answer, equally obvious to long time residents, is, all of it. But it depends a lot on the particular characteristics of the storm, it's severity and duration. For example, hurricane winds are more likely to come in from the ocean but they may come from the sound as well. Tornadoes, once they have formed, strike almost at random.

Nor'easters, by definition come from the northeast as do most winter storms but other storms may come from almost any direction. The point here is that the entire Town is vulnerable to destructive winds.

Several efforts have been made to define the areas vulnerable to flooding. Because the techniques used rely on different data and methodology the results are not precisely the same but they do clearly corroborate one another. The Special Flood Hazard Area (V-Zone) along the ocean, defined by the Federal Emergency Management Agency (FEMA), is expected to be inundated by a 100-year flood (a flood or storm having a one percent chance of being equaled or exceeded in any given year) and to be subjected to three or more feet of wave action due to velocity of wind and water. This area is the same as the High Hazard Flood Area of Environmental Concern (AEC) defined by the Coastal Resources Commission. In addition the Coastal Resources Commission has defined an area in which there is a substantial possibility of significant erosion, the Ocean Erodible AEC. It is determined by "a distance landward from the first line of stable natural vegetation to the recession line that would be established by multiplying the long-term annual erosion rate times 60, provided that, where there has been no long-term erosion or the rate is less than two feet per year, this distance shall be set at 120 feet landward from the first line of stable natural vegetation."

Another more experience based "rule of thumb" originated with Dr. Neil Frank while he was the Director of the National Hurricane Center who observed that the most extensive damage caused by a hurricane occurred within 300 feet of the ocean. When mapped these four indicators include, by and large, all of the land seaward of Virginia Dare Trail (Hazard Zone One). (See Composite Hazards Map.) This is the area of Kitty Hawk that

# KITTY HAWK

NORTH CAROLINA

SCALE

1 INCH 1000 FEET

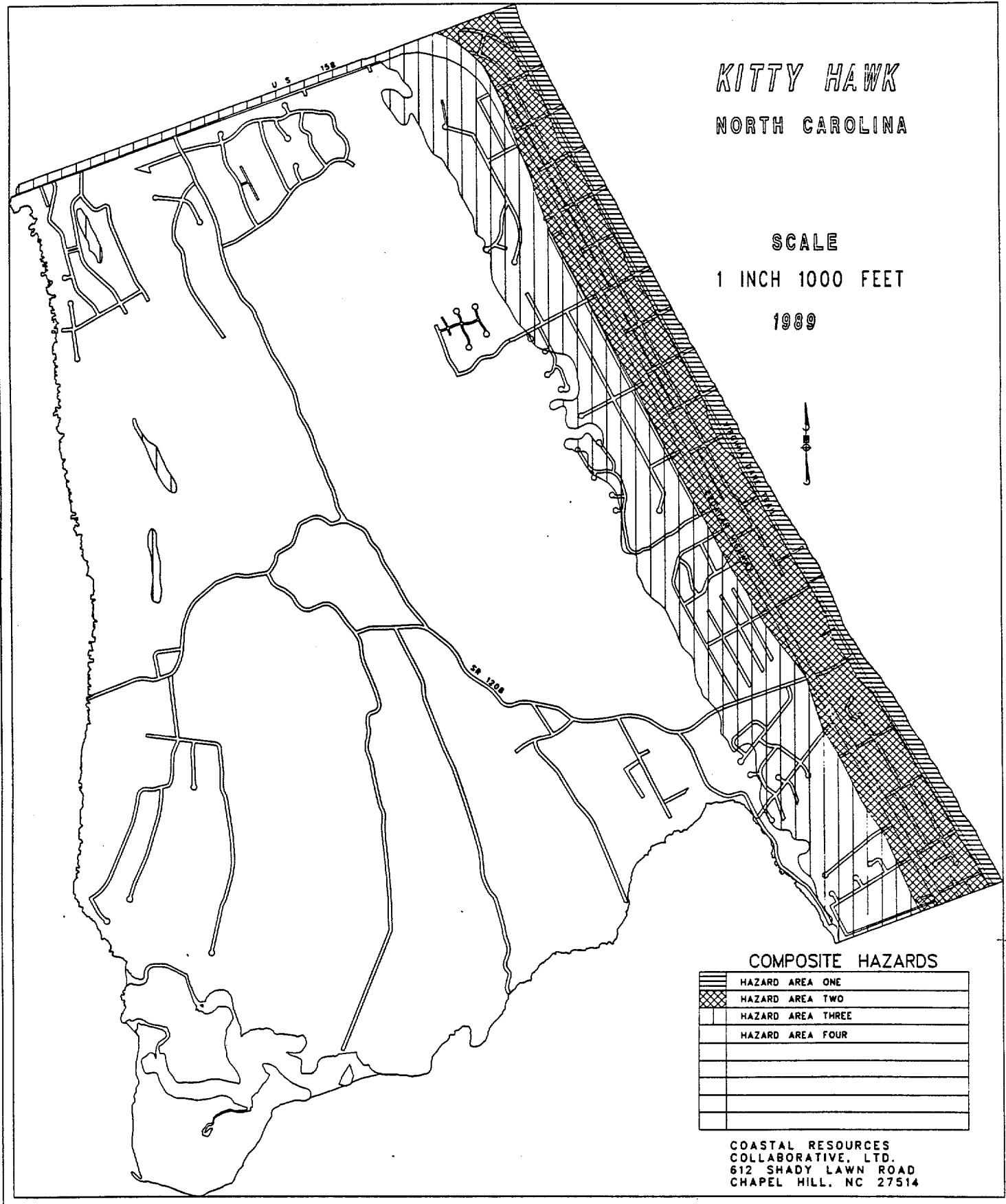
1989



## COMPOSITE HAZARDS

	HAZARD AREA ONE
	HAZARD AREA TWO
	HAZARD AREA THREE
	HAZARD AREA FOUR

COASTAL RESOURCES  
COLLABORATIVE, LTD.  
612 SHADY LAWN ROAD  
CHAPEL HILL, NC 27514



is most vulnerable to the impacts of coastal storms. This area will be inundated by the surge from any category of hurricane according to the Eastern North Carolina Hurricane Evacuation Study (the SLOSH study). This same study described the area to the immediate west of Virginia Dare Trail and extending to the foot of the dune west of U.S. 158 (Hazard Zone Two) as subject to a surge from a category 3 hurricane. That dune (Hazard Zone 3) which extends to a line about half a mile from U.S. 158, is reported by the SLOSH study not to be subject to any surge and is designated a C-Zone, an area of minimal flooding, by FEMA.

The remainder of Kitty Hawk (Hazard Zone Four), with a few exceptions, has been designated a Special Flood Hazard Area by FEMA which means it will be inundated by a 100-year flood and, according to the SLOSH study is subject to a surge from even a category-one hurricane. As a point of reference the floor of the Kitty Hawk Fire Station is 5.8 feet above mean sea level. The surge height for a Category One hurricane is estimated by the SLOSH study to be 1.8 feet above mean sea level; 3.2 for a Category 2; 4.6 for a Category 3; 6.5 for a Category 4; and 8.5 for a Category 5. Much of this area is included within the coastal wetland and estuarine shoreline AECs.

Thus, all of Kitty Hawk is vulnerable to some aspects of a coastal storm. The ocean front is perhaps the most vulnerable and the dune the least but these distinctions are only relative.

When a coastal storm confronts a barrier island, the island reacts as a proper barrier should; it bends to absorb the energy of the storm but it usually does not break to allow the full force of the storm to reach the mainland. Erosion and flooding are a part of this process; after the storm, the island recovers and is ready to confront the next storm.

It is only the structures that human beings place on the barrier island that are destroyed or damaged. It is only in the sense of the built environment that a disaster occurs. In the natural environment the confrontation is just a part of the ongoing natural process.

The existing land use map shows that Hazard Zone One is almost entirely developed with single family seasonal houses on quite small lots. The next zone, Hazard Zone Two, consists of single family dwelling units, some multi-family structures and commercial development. It is about 70% developed. Hazard Zone Three, which is the dune area and perhaps the least vulnerable, is about 60% developed, including a golf course, with

single and multi-family dwelling units. The remaining area, Hazard Zone Four, is developed along the major roads but is largely undeveloped.

**Property at Risk**

**Hazard Zone One**

**Total Assessed Value of Land and Buildings in Kitty Hawk**

Buildings	80,605,381
Land	<u>50,583,252</u>
	131,188,633

**Assessed Value of Ocean Front Land and Buildings (east of Virginia Dare Trail) in Kitty Hawk**

Buildings	4,340,700
Land	<u>5,580,300</u>
	9,921,000

Ocean front is 7.6% of total assessed value; 1% of land area.

Ocean front buildings are 5.4% of total building assessed value.

Ocean front is 11% of total land assessed value.

Assessed value of ocean front land (18,750 feet) is about \$280 per front foot.

1987 Data

**Mitigation**

It is clear from the foregoing that Kitty Hawk is vulnerable to the effects of coastal storms. In this sense, the use of the term hazard is a misnomer in that "hazard" implies "chance" or "accident" whereas coastal storms on the Outer Banks are a part of the reality; there is no "if" just "when". The question, then, is what can be done to diminish the risk. The answer is mitigation. Mitigation means "to make less severe or intense"; it does not mean remove or obviate, as long as people live on the Outer Banks risk will be present. There are a number of approaches to mitigation that have been suggested.

### Keep the Storm Away

An obvious thing to do when threatened is to keep the threat away from you; erect barriers so that it cannot get to you. This approach has been used on many barrier islands and is known generally as "island stiffening" because the basic purpose is to keep the island rigid rather than bending as it naturally does.

It has been shown that bulkheads, revetments, jetties, groins and other structures designed to stiffen the coast and impede the natural processes which are an integral part of the barrier island system tend to increase rather than impede beach erosion, leading to increased risk to property and lives and loss of the public beach, one of the town's most valuable assets. It is, therefore, the policy of the town to prohibit these devices. To do so the Town adopts as its policy the CAMA policies prohibiting these devices and will encourage strict adherence to this policy.

### Make the Structures Stronger

It is recognized that structures built on the Outer Banks need to be built to withstand the many perils of the natural environment including wind, flooding, soil erosion, erosion of building materials caused by salt air, battering from waves and debris laden flood waters, etc. The North Carolina Building Code and the National Flood Insurance Program require that a number of building practices be followed in the coastal area. It is the policy of the Town that these practices be followed and strictly adhered to.

The Town will take whatever steps are necessary to insure that the Town employees responsible for the enforcement of the Building Code and the Flood Ordinance are properly trained and that their work loads are manageable. The Town will join with other local governments to urge that the Building Code be professionally reviewed to insure that it's provisions are adequate for a coastal setting. Whenever the Town undertakes to build a new public structure, it will insure that it is designed to withstand the impact of coastal storms.

The Town will explore the possibility of creating a mutual aid program to secure the services of extra building inspectors following a disaster. It will support any effort by the Coastal Resources Commission to accomplish and coordinate a similar effort.

### Elevate Structures Above the Flood

A widely used measure to avoid flood waters is simply to raise the structure above the expected level of flooding. Indeed, the National Flood Insurance Program requires, as a condition of participation in that program, that the participating jurisdiction require that all new buildings be so elevated. Kitty Hawk participates in the Flood Insurance Program and has adopted the required ordinance. It is the policy of the Town to take whatever steps are necessary to insure that property owners continue to be eligible to obtain flood insurance from the National Flood Insurance Program. It is also the policy of the Town to vigorously enforce the provisions of the Flood Protection Ordinance. Because so much of the Town is subject to flooding a great many structures will be elevated. This will provide them with some protection from flooding, but if the structures are not carefully built to high standards, the elevation may make them more vulnerable to high winds.

### Do Not Place Structures in the Most Hazardous Areas

So much of Kitty Hawk is vulnerable to coastal storms that it is not possible from either a legal or practical perspective to preclude development in all hazardous areas. So what can a Land Use Plan contribute to an effort to mitigate the impacts of a coastal storm?

First, it can limit development in the most hazardous area (HZ1). Almost all construction in the Ocean Erodeable AEC is precluded by the CAMA rules. The Town supports this policy, will continue to enforce it, and incorporates that policy by reference into this Plan. The remainder of Hazard Zone One, with the exception of a small area at the northern most end of the zone, is designated for low density residential use by the Land Use Plan and the Town Zoning Ordinance. This is the present policy of the Town and the Town intends to maintain this policy in the future. This policy results in diminishing the threat to lives, to the tax base, reduces the evacuation burden, makes sense environmentally and economically. It makes the beach available to more people of the Town and is completely consistent with the notion that Kitty Hawk is and wants to continue to be a family oriented beach community.

It is recognized that some lots fronting on the ocean have or may become so shallow, because of erosion, that they cannot be built on. It is the policy of the Town to cooperate with the State and Federal governments,

to the maximum extent possible, in the acquisition of these lots. It is also the policy of the Town to encourage property owners whose structures are threatened by flooding to take advantage of the Federal Insurance Administration Program offering assistance in moving the structures out of danger. Wherever possible the vacated land should be acquired by the public through dedication or purchase.

Hazard Zone Four can, according to the SLOSH Study and the NFIP maps, expect serious flooding even in the case of a relatively minor hurricane. This area is also some of the most environmentally sensitive and aesthetically attractive land in Kitty Hawk. It is the Town policy that this area develop, if it develops at all, as low density residential and to this end the existing Zoning Ordinance, the Flood Protection Ordinance and the relevant CAMA rules will be strictly enforced.

The remainder of the Town, Hazard Zone Two and especially Hazard Zone Three, are relatively safe and are therefore more appropriate for multi-family structures and commercial uses and appropriate portions have been designated for these purposes.

#### Reconstruction

It is the policy of the Town of Kitty Hawk that any reconstruction that follows a disaster or storm related destruction shall take place in accordance with policy existing at the time of the storm. The development that takes place following a storm should have the same characteristics of development allowed at the time of the storm. To this end the Town will consider a moratorium on requests for amendments to the Zoning Ordinance or the Subdivision Ordinance for an appropriate period following an officially declared disaster.

The Town will explore the possibility of adopting a construction moratorium which would be triggered by a disaster or major destruction caused by a coastal storm or other catastrophe.

The non-conforming structure section of the Zoning Ordinance should be examined to see if it should be revised to follow this policy.

#### Evacuation

Even the most cursory review of the Evacuation Route Maps of the SLOSH Study will make clear the problem residents will face in attempting to leave the Outer Banks in the face of an oncoming hurricane. All of



the evacuees from Ocracoke to Corolla must leave by one of two bridges and even once they cross the bridges they must face the traffic in adjacent counties. (See following table for estimated evacuation times.) The maps also show that there is really very little that Kitty Hawk can do to alleviate the evacuation problem in terms of evacuation per se. It can however, and will, assist the county in whatever way it can to make the evacuation of the county as efficient as possible. The Town will also urge the county and the state to formulate an evacuation plan which recognizes the regional nature of the problem.

Two of the more significant bottle necks in the evacuation network occur on U.S. 158 on the northern border of Kitty Hawk: one at the bridge and the other at the intersection with Duck Road (S.R. 1203). If indeed bottlenecks do occur at these points, there may be a number of people seeking shelter from the storm. Kitty Hawk Elementary School could possibly function as a shelter but more space may be needed. The Town will urge the County to anticipate this need and deal with it.

The Town has adopted a state of emergency ordinance which states in part: "A proclamation may direct and compel the evacuation of all or part of the population of Kitty Hawk, prescribe routes, modes of transportation and destination in connection with evacuation and control ingress and egress of a disaster area, the movements of people within the area, and the occupancy of premises therein. Details of evacuation may be set forth or amended in a subsequent proclamation."

Kitty Hawk is a participant in the Dare County Disaster Relief Plan of April, 1984 and the Hurricane Evacuation Plan coordinated by the Dare County Emergency Management Agency, revised July 5, 1988.

The state is currently widening portions of U.S. 158 to the county line and considering two additional bridges -- one beside the existing Wright Memorial Bridge on U.S. 158 and the other connecting Duck with the Mainland.

Probably the most significant thing that can be done to alleviate the evacuation problem is to reduce the number of people who need to be evacuated. In this respect Kitty Hawk has clearly taken the lead on the Outer Banks by reducing the allowed density of development. Clearly the evacuation problem is going to get worse, but at least the restraint shown by Kitty Hawk will keep the Towns' contribution to that problem of manageable size. The Town will continue its existing low density development policy.

### Shelters

In North Carolina, public shelters may be designated and operated by the American Red Cross or by the county Department of Social Services. According to the SLOSH study there are no shelters operated by the Red Cross in Dare County. There are four possible shelter sites listed within or close to Kitty Hawk:

#### Possible Shelter Facilities

<u>Facility</u>	<u>Capacity</u>	<u>1st Floor Elevation</u>	<u>Potential Surge Heights</u>				
			<u>Cat 1</u>	<u>Cat 2</u>	<u>Cat 3</u>	<u>Cat 4</u>	<u>Cat 5</u>
Kitty Hawk School	463	10.5	1.9	3.2	4.6	6.5	8.5
Kitty Hawk Methodist Church	68	7.9	1.9	3.2	4.6	6.5	8.4
Rock Church	100	**	Dry	Dry	Dry	Dry	Dry
Kitty Hawk Fire Department	46	5.8	1.9	3.2	4.6	6.5	8.5

Given the number of people who may be forced to seek shelter, especially in the Kitty Hawk School, this is not a very large number. The Town will encourage the county to designate more shelters in or near Kitty Hawk. In addition any buildings that the Town undertakes to build will be located and designed to provide evacuation shelter from coastal storms. Also the Town will encourage developers of multi-family projects and hotels to provide evacuation shelters for the residents, employees and occupants of their facilities. The Town will actively encourage and participate in multi-jurisdictional programs to inform the public on how to effectively deal with and be a part of Dare County's Evacuation Plan.

#### Policies on Other Concerns

Septic tanks and package treatment plants are within the jurisdiction of the County Health Department and in some cases the State of North Carolina. They are of concern to the Town, however, and the Town will

urge that these facilities be designed and located so that they will be less likely to be damaged, to cause damage or serious inconvenience by flooding.

Wells and the water distribution system within Kitty Hawk are also within the jurisdiction of the county and are of great concern to the Town. The Town will urge the county to design the distribution system so that it is less vulnerable to flooding and erosion and also to develop contingency plans for relocating the water main in Virginia Dare Trail right of way if erosion makes it necessary to do so. It will urge the county to play a more active role in the design and location of private wells.

Most of the roads in Kitty Hawk are a part of the state road system but like all infrastructure are of vital concern to the Town. Within the context of coastal storm hazard mitigation there are three concerns: the proper layout of roads to facilitate evacuation; the design of the roads so that they are free from ponding and flooding; and the proper design of drains, culverts and bridges so that roadways do not become dams or dikes and the cause of flooding. To this end the Town will urge the North Carolina Department of Transportation to incorporate these concerns into their designs as well as the concerns about the design of Kitty Hawk roads and streets elsewhere in this plan.

Recognizing that there is a strong possibility that portions of the Beach Road may be destroyed by erosion, and that another north-south road in Kitty Hawk Beach is necessary in any case, the Town will take whatever steps are necessary and appropriate to make Lindberg Avenue a viable north-south thoroughfare which could serve as a replacement for the Beach Road if necessary. In order to insure that this remains a viable option, the necessary right-of-way will be acquired as soon as possible.

It is the policy, to the extent possible, to prevent the reconstruction of structures which have been substantially damaged and are located in high hazard areas. Where reconstruction of such sites is allowed to take place it will be so only at low densities.

During reconstruction the Town will limit the construction of public facilities and public structures and the reconstruction of damaged facilities and structures in high hazard areas. Public facilities such as water and roads will be extended or rebuilt in damaged areas only when absolutely essential, and only to such size and degree necessary to serve the level of density existing before the storm.

During reconstruction the Town will seek to relocate high density structures away from high storm hazard areas.

All reconstruction will conform to the provisions of the North Carolina building code with particular emphasis on strengthening and elevation provisions.

The Town will comply with and enforce all CAMA requirements.

The Town will take advantage of opportunities which may arise to obtain land in hazard areas following a storm utilizing any state or federal applicable laws and funds.

During reconstruction decision making the Town will seek to encourage redevelopment patterns which recognize and utilize the natural mitigation features of coastal environment. Redevelopment should take into consideration any changes in natural conditions brought about by the storm (e.g., new inlets, changes in drainage, elevation, etc.).

The Town will make every effort to develop its capacity to identify and orchestrate various post-storm reconstruction resources, while at the same time ensuring maximum local control over the reconstruction process. It will be aggressive in its pursuit of funds for projects which will primarily effect the Town and will coordinate its efforts with those of the County and other beach communities on projects that require joint funding or management.

The Town will integrate recovery and reconstruction with the broader set of planning goals and objectives for the community.

The Town will examine the non-conformity section of the zoning ordinance to determine if changes are required.

It is the policy of the Town to prohibit bulkheads, revetments, jetties, groins and other structures designed to stiffen the coast and impede the natural processes which are an integral part of the barrier island system and tend to increase rather than impede beach erosion. The Town adopts the CAMA policies, standards and rules as of January 1, 1989 and will enforce them.

It is the policy of the Town to endorse the building practices of the North Carolina building code and National Flood Insurance Program, to establish practices and standards to construct structures to withstand the

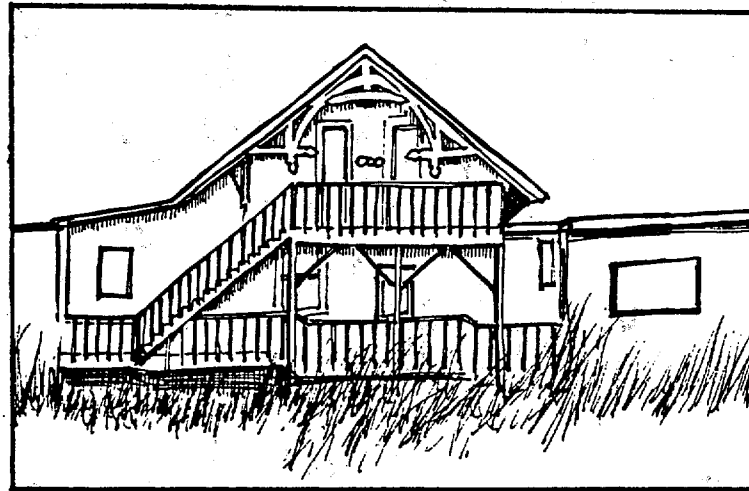
many perils of the natural environment including wind, flooding, soil erosion, erosion of building materials caused by salt air, battering from waves and debris laden flood waters, etc.

It is the policy of the Town to take whatever steps are necessary to insure that property owners continue to be eligible to obtain flood insurance from the National Flood Insurance Program.

It is the policy of the Town to mitigate the impact of coastal storms while recognizing the legal or practical perspective to preclude development in all hazardous areas.

It is the policy of the Town to continue its low density development plan that reduces the number of people that need to be evacuated; to actively participate in multi-jurisdictional programs to inform the public on how to be effective in the Dare County evacuation plan; to seek additional bridges and evacuation centers.

# LAND CLASSIFICATION SYSTEM



## Chapter Nine

### Land Classification System

A land classification system has been developed to identify the general character of existing development and future development in the Town. The system is based on existing land use patterns and the sequence of future development in certain areas of the community where basic services will become available to support development (roads, water, etc.). It is also based on the natural ability of the land to support development, recognizing that some sections of the Town should be conserved as natural areas or because they present hazards to development, or both.

The land classification system (see Land Classification Map) contains five categories of land:

1. Developed - Beach
2. Developed - Village
3. Transition A - Public Utilities
4. Transition B - Private Utilities
5. Conservation

"Developed" lands provide space for continued development or redevelopment. This includes lands currently developed at or approaching a density of 500 dwellings per square mile that are serviced by public roads, water lines, and recreational facilities as well as police and fire protection. Even though the two areas of town are not very different in density or the mix of land uses, the division of developed lands into "Developed - Beach" and "Developed - Village" recognizes the differences between the character of existing development in Kitty Hawk Beach and Kitty Hawk Village. Even though the density and use standards are the same for each, any further development in these two areas should recognize the distinctive character of each. Kitty Hawk Beach is somewhat typical in design, land use mixtures, and density of residential beach communities in North Carolina. It is the more seasonal and transient part of the community. Kitty Hawk Village is different, even though its density is not much lower than that of the beach; its unique character consists of its small scale, its

sense of heritage as one of the oldest continuous settlements on the Outer Banks, its vast stands of maritime forest, and the special quality of life it provides for its residents. The Village has more a sense of being a year-round residential community.

"Transition" lands provides space for development. These are lands that may or may not be developed now, but are suitable for development and/or scheduled for the provision of utilities and services that support development. The transition areas in Kitty Hawk are divided into "Transition A - Public" and "Transition B - Private." Both categories cover land that is presently developed or expected to develop. "Transition-Public" includes those areas where a commitment has already been made for Dare County to construct and maintain water lines for streets and other physical infrastructure necessary to support development. "Transition-Private" includes those areas where no such commitment exists and where responsibility for constructing roads and water lines rests with the private developer.

Lands in the "Conservation" class are those requiring effective long-term management in order to protect significant, limited, or irreplaceable natural, cultural, and scenic values. The "Conservation" class includes wetlands; important wildlife habitats; undeveloped forest lands; and undeveloped shoreland that are unique, fragile, or hazardous for development. "Conservation" lands include those areas that are particularly unsuitable for development and/or have special, irreplaceable natural and aesthetic values. The types of development suited to "Conservation" lands are very low-density residential, recreational, and open space uses. Development within "Conservation" lands must take special precautions to overcome any hazardous conditions and to maintain the land's intrinsic natural qualities.



# KITTY HAWK

NORTH CAROLINA






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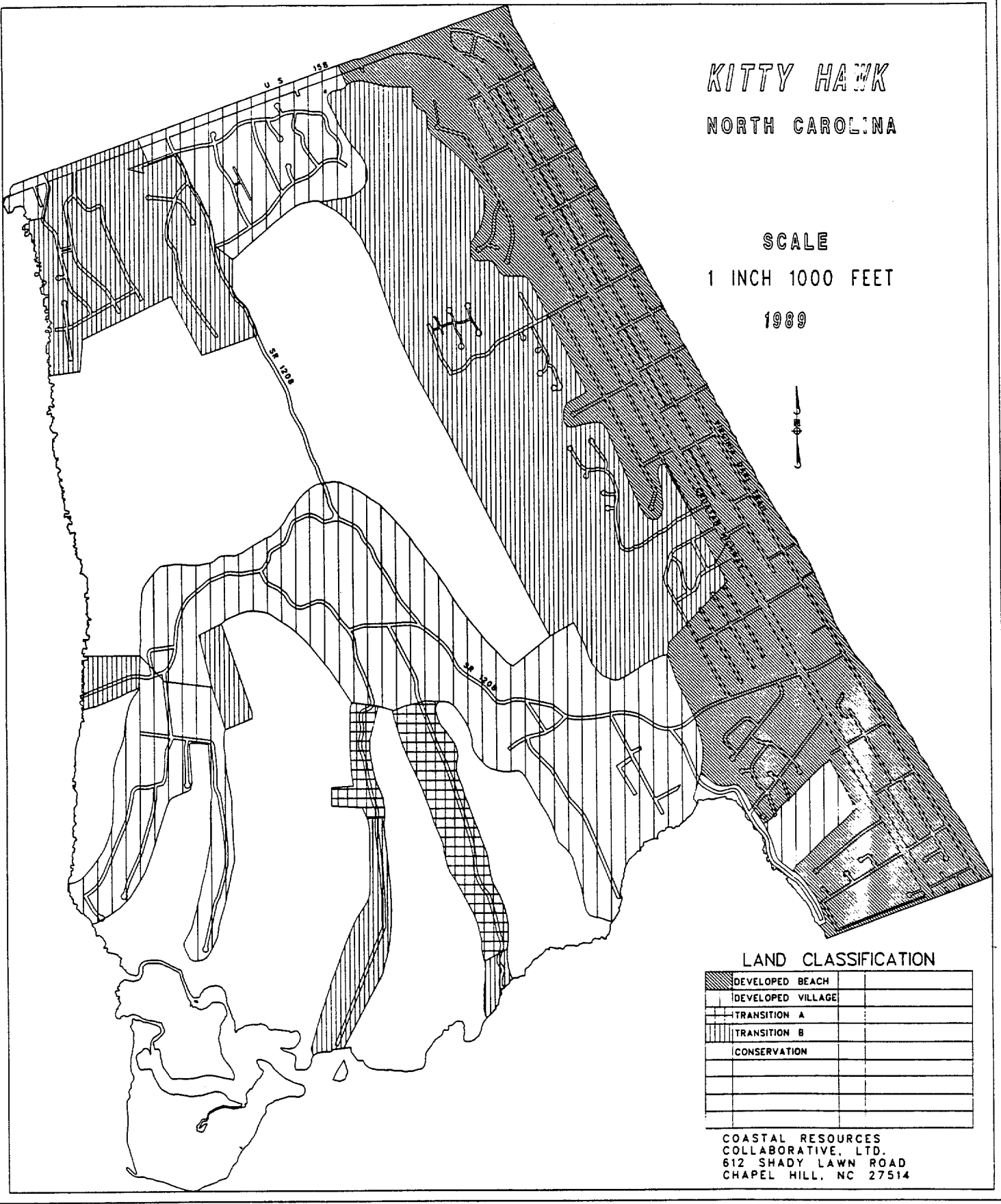
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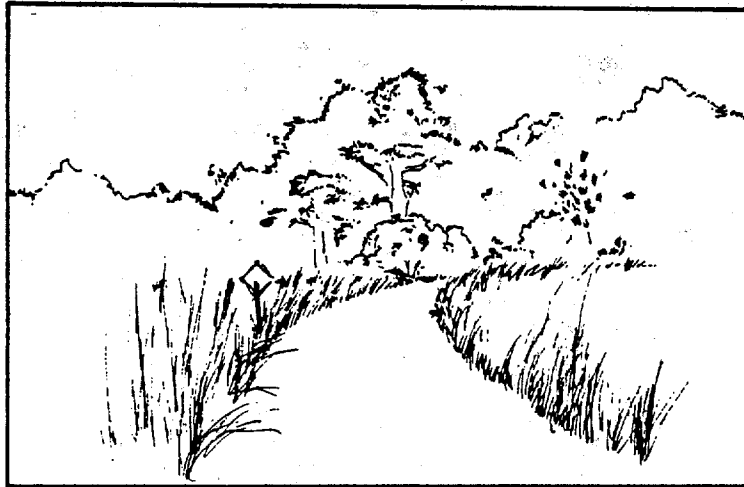
## LAND CLASSIFICATION

	DEVELOPED BEACH	
	DEVELOPED VILLAGE	
	TRANSITION A	
	TRANSITION B	
	CONSERVATION	

COASTAL RESOURCES  
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CHAPEL HILL, NC 27514



LAND USE POLICY AND REGULATIONS



## Chapter Ten

### Land Use Policy and Regulations

In thinking about land use policy it may be useful to review the many different perspectives of the land that have already been discussed in this plan. The economy of Kitty Hawk feeds from the land not just as a location for development, but more importantly, as a place people like to be and want to come back to. After the land in Kitty Hawk is all built on, as it will be one day, if Kitty Hawk is no longer a place people want to be, where they can thrill to the beauty and excitement of the natural resource, the economy will wither. But the land is also our source of water, and our means of waste water treatment. It is our protector in case of storms. Last but by no means least it is our heritage, our legacy, not that we own or have permanent jurisdiction over, but what we use while we are here and leave to our children and their children. What is left for them is up to us.

Land use policy helps define the type and density of future development that could occur and is an amplification of the Land Classification System. The different land use categories presented in the land use map are designed to maintain and enhance the existing character of the Town and its natural resources while allowing ample room for growth. The map displays a pattern of development which could take place in the future within the context of the Land Classification System.

The land use map identifies eight categories of development throughout the Town:

#### Residential:

1. Low Density Residential (Single-family)
2. Medium Density Residential (Single-family)
3. High Density Residential (Single-family)
4. Multi-family Residential

#### Commercial/Industrial

5. Beach Commercial
6. Commercial
7. Village Commercial
8. Industrial

These different land use categories are located in accordance with existing land use patterns, the suitability of different sections of the Town for different types of development, and the existing character of Kitty Hawk, its scenic beauty, and the quality of its natural resources. It should be noted that "low," "medium" and "high" are relative terms and that it is the policy of the Town that the highest density allowed is four dwelling units per acre.

Kitty Hawk Beach should remain predominantly single-family residential. Commercial uses which meet the needs of the Town's residents and visitors should continue to be clustered along U.S. 158 and the Beach Road to avoid the strip development plaguing other beach communities. Multi-family residential development is afforded ample space; most of this is west of U.S. 158 to preserve the character of the existing beach development and to take advantage of the more stable, less hazardous land, better soils, and better vehicular access found away from the oceanfront.

Kitty Hawk Village should remain predominantly single-family residential. Commercial activities in the Village will cluster at the Village's existing core (Kitty Road and Main Road); these commercial uses should be at a scale and of a type compatible with the Village's traditional character. Higher-density residential uses should be clustered together to maintain a tighter sense of community in the Village, rather than sprawl throughout the woods. The remainder of the community should be reserved for single-family, low-density development.

Improvements needed include a park located along Moor Shore Road to increase the public's access to the soundfront and a nature area in the center of Kitty Hawk Woods which would set aside an undisturbed area where the Town's residents can enjoy and learn about the natural environment that helps make Kitty Hawk a special place. Boat ramps, located along or at the ends of roads leading to Currituck Sound and Kitty Hawk Bay, would make it easier for the Town's residents and visitors to reach the water and take advantage of the Town's opportunities for fishing, swimming, and other water sports. A nature trail through Kitty Hawk Woods and a bicycle trail looping through the woods, village, and beach would further enhance opportunities for recreation in the community.

# KITTY HAWK

## NORTH CAROLINA

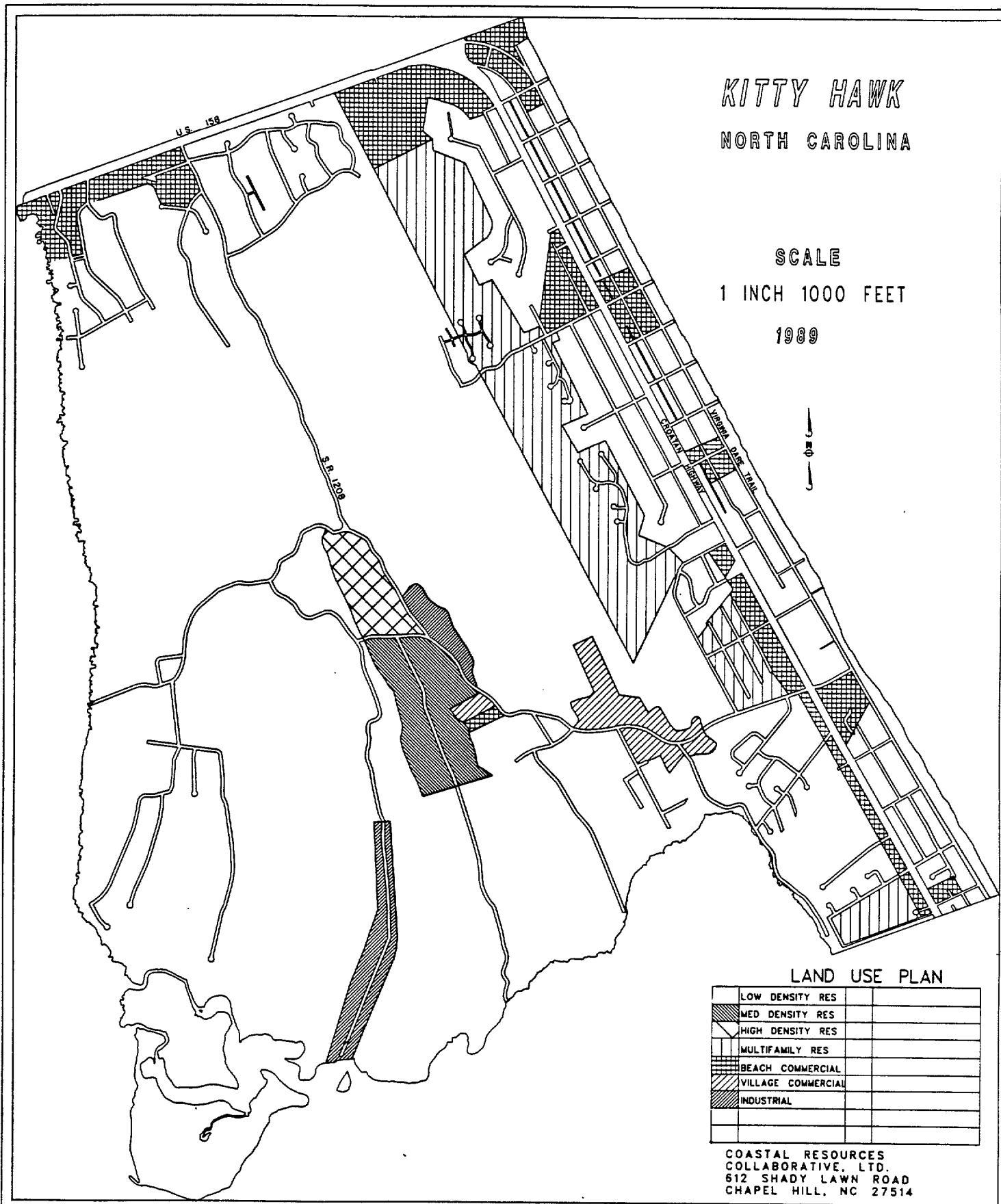
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### LAND USE PLAN

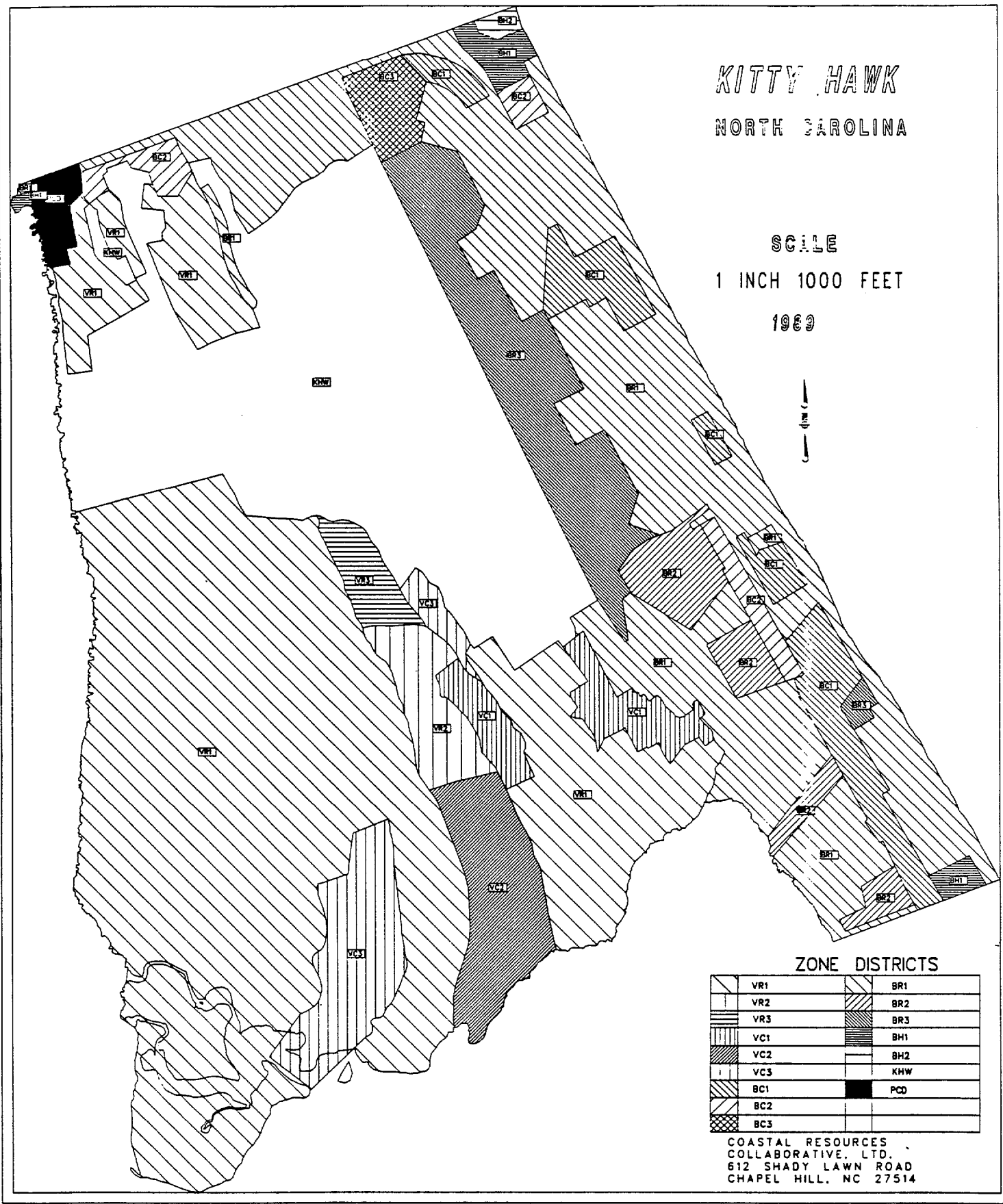
	LOW DENSITY RES		
	MED DENSITY RES		
	HIGH DENSITY RES		
	MULTIFAMILY RES		
	BEACH COMMERCIAL		
	VILLAGE COMMERCIAL		
	INDUSTRIAL		

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# KITTY HAWK NORTH CAROLINA

SCALE  
1 INCH 1000 FEET  
1969



### ZONE DISTRICTS

VR1	BR1
VR2	BR2
VR3	BR3
VC1	BH1
VC2	BH2
VC3	KHW
BC1	PCD
BC2	
BC3	

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Improvements and additions to the Town's road network would facilitate the flow of traffic through the community. Additions to the public water supply system should tie different sections of the community together into "loops" which can ensure continued water supplies throughout the community if a major water line should break down.

### Zoning

Shortly after its incorporation in 1981, the Town of Kitty Hawk adopted (with minor changes) the already-existing Dare County Zoning Ordinance as its own ordinance. This action was mainly one of expediency; state law gives a new community 60 days to adopt a new zoning ordinance, adopt the one under which it had been operating, or be without a zoning ordinance. Recognizing that a new zoning ordinance could not be developed and approved within 60 days, and that operating without a zoning ordinance was unacceptable, the Town adopted a modified version of the Dare County ordinance.

Since the adoption of the Land Use Plan in 1983, the Zoning Ordinance has undergone significant changes which provide for more efficient management of growth and development. There is substantially more emphasis on unified plans for commercial development. There are still problems of a transitional nature (such as residential uses in commercial zones; mixed commercial uses; signs, parking, mobile homes, streets, and conservation) that will probably result in further ordinance amendments.

### Subdivision Ordinance

The Dare County Subdivision Ordinance was adopted shortly after incorporation and has been reviewed and amended many times; street standards, design, plat requirements, etc. have been changed.

### Flood Damage Prevention Ordinance

The Town adopted the North Carolina Division of Emergency Management's model ordinance on January 19, 1988.

## Other

The Town adopted a Dune Protection Ordinance on February 3, 1985; a Sedimentation and Erosion Control Ordinance on June 15, 1981 and amended on January 6, 1986, and a noise control ordinance in 1986.

The zoning ordinance contains mobile home and sign sections and a special section on Kitty Hawk Woods.

## POLICIES:

Kitty Hawk is a modest, tasteful, aesthetically pleasing, low-density, residential community and, therefore, does not wish to promote agriculture, forestry, mining, industry, energy facilities, or offshore drilling support services.

The Town will work with Dare County, Kill Devil Hills, and Southern Shores to ensure that zoning and development adjoining its boundaries are compatible with adjacent land uses existing and planned in Kitty Hawk.

The Town will maintain a mix of low-density and medium-density residential uses limiting all residential uses to not more than four units per acre.

The Town will study its commercial districts, as currently constituted to determine if they are adequate to meet the community's needs.

The Town will thoroughly review areas which constitute high safety hazards along U.S. 158 and N.C. 12 before more development is allowed to occur there, and limit access and egress which adversely impact on public safety or welfare.

The Town has created a zoning district in which shopping malls are allowed. It has decided to establish standards for development which will make a mall compatible with the character of the Town.

The Town will review the existing commercial zones and revise the zoning designation if significant portions of them are developed as residential.

The Town will consider amending the zoning ordinance to prevent residential development in existing commercial districts except on the second floor.

Owners of residential property are entitled to buffers from the sights and sounds of commercial facilities; the Town will give highest consideration to such buffers to protect the community's residential character.



The Town does not desire structures in excess of 35 feet and will not encourage high-rise development. The Town's current height standards comply with the community's desires and are consistent with the current scale of development and with the capacity of the fire department.

Utility, telephone, cable television, and other transmission lines should be placed underground; whenever and wherever feasible to do so they should be placed within the right of way.

The Town's zoning ordinance, subdivision ordinance, and other development and redevelopment policies should address aesthetic concerns and will promote development and redevelopment that is at a scale and uses materials appropriate to its physical surroundings.

The natural environment is discussed earlier in this Plan as are the Areas of Environmental Concern (AEC's) defined and protected under the authority of the Coastal Area Management Act. The rules implementing the AEC's in force at the time of the adoption of this Plan are incorporated by reference and made a part of this Plan. It is the policy of the Town that these rules as well as all other laws, regulations and rules, local, state and federal, affecting the development of Kitty Hawk be fairly and equitably enforced.

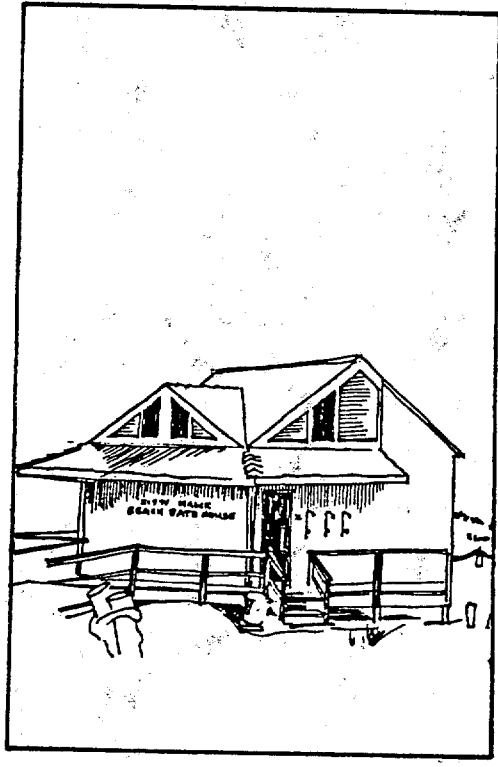
Marinas serving recreational boaters and the small scale traditional fishermen found in Kitty Hawk are encouraged; however any such marinas must be designed and located to protect the natural and aesthetic environment.

The Town does not favor floating homes and/or commercial buildings in the sound or Kitty Hawk Bay. The Town will ascertain the extent of its jurisdiction to deal with these and take appropriate action.

Entrances to Kitty Hawk should be studied and plans for their appearance formulated. The Town should obtain the cooperation of Southern Shores so that visitors to the Outer Banks are greeted with a pleasing setting rather than a harsh materialistic cacophony of colors and symbols.

One of the serious problems confronting many beach communities is that even though most are relatively small it is dangerous, unpleasant and in many cases, virtually impossible, to walk anywhere including in the case of the by-pass, even across the street. A number of policies appear in this Plan that speak to this issue but a major one is land use. The Town encourages development that encourages pedestrian movement such as residential and motel developments providing walkways to the beach and to commercial areas. The Town will

# IMPLEMENTATION



## Chapter Eleven

### Implementation

The Land Use Plan is required to describe the method by which policies will be implemented. One of its major purposes is to provide a management system through which the goals and policies may be achieved. The Land Use Plan should continue to be the framework within which development policy is formulated and carried out.

Municipal government in North Carolina and generally in the United States has only those legal powers which have been delegated to it by the legislature, or in the case of North Carolina, the General Assembly.

Those powers fall into four general categories:

1. the power to spend;
2. the power to tax;
3. the power to acquire land; and
4. the power to regulate

When using any of these powers in a way that will affect the characteristics of development in Kitty Hawk, the Land Use Plan should be consulted and used as a guide to determine the precise way in which those characteristics will be affected. The characteristics of development most often affected are the location, type, density, amount and timing. If one of the powers of government is to be used in a way that will affect the characteristics of development in Kitty Hawk, the Land Use Plan should guide the direction of that change. Thus the Land Use Plan is put into practical effect and carried out by the way in which these powers are exercised.

These powers are most generally exercised through the adoption of ordinances. Probably the most widely used ordinances are zoning ordinances, which regulate the location, type and bulk of activity on the land, and

subdivision ordinances which regulate the way in which large tracts of land are subdivided into smaller tracts. Indeed, so prevalent are these ordinances that in some places they are confused with land use planning itself, whereas they are, in fact, merely ways of implementing a Land Use Plan. In addition, the way in which local funds are spent often affects the characteristics of development especially if the expenditure involves the contribution of infrastructure or the purchase of land. The local power to tax does not affect development as much as the state or federal power because the local power is restricted to an ad valorem or real property tax. This can be significant, however, in that if the tax is too high certain types of development, e.g., affordable housing, will be precluded, but if it is too low, adequate facilities cannot be provided and serious problems will follow.

In addition, in North Carolina, a local Land Use Plan becomes a part of the North Carolina Coastal Management Program when it has been approved by the Coastal Resources Commission. Under the North Carolina Area Management Act and the federal Coastal Zone Management Act certain federal and state activity that takes place within the jurisdiction of the Land Use Plan must be consistent with the Plan. The value of this lies in the fact that many things that affect the development of Kitty Hawk are the responsibility of the county, the state and the federal government and through the Land Use Plan the Town has a voice in the decisions made by these other units of government.

The earlier Land Use Plan of Kitty Hawk was used extensively as a guide for the way in which these powers were used in Kitty Hawk. The zoning ordinance was extensively revised, subdivision and other ordinances were revised, and new ordinances were adopted in accordance with the earlier Plan. Land has been acquired and improved under the guidance of the Land Use Plan and in many, many other ways it has provided a framework within which the development of the Town has taken place.

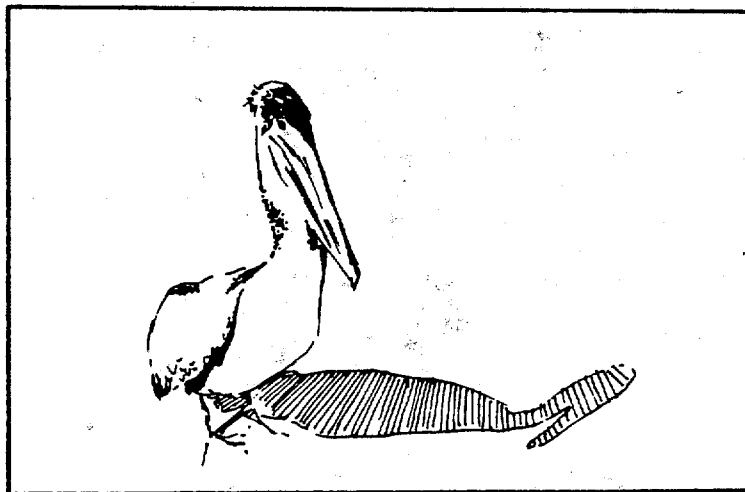
The Town of Kitty Hawk is committed to putting this new plan into practical effect by using it constantly and consistently to guide development decisions. This Plan establishes policies on the economy, the use of the land, the natural environment, municipal facilities and many other important program areas which impact development decisions.

In order to implement these policies a centralized management is required. That system will best function if it allows flexibility in establishing program priorities.

The Town will designate its professional planner as the official charged with overall development program responsibilities. The Planning Board will have primary responsibility of making recommendations to Council of methods by which policies may be implemented.

The Planner and Planning Board will formulate semi-annual work programs which target specific objectives and will devise appropriate means for achieving implementation of those objectives. The method of establishing program priorities will be based on an assessment of planning needs and growth management requirements. The work program will be realistic in terms of staff, time, and budget.

RESTATEMENT OF POLICIES  
TRANSITION OF 1983 LAND USE  
PLAN POLICIES



## Chapter Twelve

### Restatement of Land Use Plan Policies

#### Attitudes About Growth in Kitty Hawk

1. To ensure a strong voice in the government in the Town of Kitty Hawk the public will continue to be actively involved in the planning process.

#### Economy

2. The Town will maintain and promote its appeal as a place to visit and as a place to live by preserving its character as a low-density beach community, by preserving and enhancing its physical attractiveness and its natural beauty, and by planning for public beach access and open space through the land use plan, zoning and subdivision regulations, and other development policies.

3. The Town will encourage the continuation of independent fishing and crabbing operations and family oriented tourism as a part of Kitty Hawk's traditional economy.

4. The Town will explore all options open to it to preserve and enhance the beauty of its natural and built environment. This will include but not be limited to ordinances and other policies to clear up existing eyesores, e.g., a reexamination of the sign provision of the zoning ordinance and the formulation of policy dealing with the visual appearance of the entranceways to and major passageways through the Town.

5. The Town will explore non-tourist related business to broaden the economy but is not interested in businesses which have an adverse impact on the natural environment.

#### Natural Environment

6. The Town of Kitty Hawk will continue to vigorously pursue extending the Dare County water system into unserved areas where growth is anticipated.

\* Denotes new policy; all others derive from the 1983 Land Use Plan.

7. The Town of Kitty Hawk will continue to project the community's future water needs in relation to its growth potential.

8. The Town of Kitty Hawk will continue to encourage Dare County to modify the existing water system into "loops" which will help to maintain service in the case of a malfunction in the system.

9. The Town will explore ways in which the effects of stormwater runoff can be minimized. This will include an examination of existing development management policy dealing with coverage, lot size, protection of natural drainage systems, etc.\*

10. It is recognized that all of the soil in Kitty Hawk is limited in terms of its ability to adequately accommodate septic tanks. Much of the better soil has already been developed leaving only the soils with severe and very severe limitations. It is the policy of the Town that a community-wide public sewer system will not be installed. The Town will explore the possibility of formulating regulations dealing with package treatment plant inspection and maintenance. If it is not feasible, the Town will explore urging the county and state to formulate a program to insure the continued adequate operation of these facilities.

11. The Town of Kitty Hawk recognizes that the identification and protection of AECs is one of the central concerns of the Coastal Management Program for North Carolina. Governmental intervention in land development is necessary to assure the proper functioning of the physical and biological systems.

12. The Town of Kitty Hawk will cooperate fully with the appropriate State and Federal agencies to conserve, manage, and protect all the estuarine waters and their vital components.

13. The Town of Kitty Hawk recognizes the importance of coastal wetlands as a breeding area for fish, shrimp, and certain animals, birds, and plants. No development activity is permitted within this AEC.

14. The Town will work with the appropriate State and Federal agencies in protecting the integrity of all public trust waters within the Town of Kitty Hawk.

15. The Town will work closely with the County Health Department and with the State Division of Coastal Management in managing estuarine shorelines.

16. Within ocean erodible areas, the Town will maintain the line of oceanfront sand dunes by protecting the vegetation which stabilizes the dune system and by prohibiting further development in these areas.\*



17. The Town encourages the construction and installation of wooden walkways and steps to the beach, elevated observation platforms, and sand fences in areas where erosion has occurred. The Town prohibits bulkheads, jetties, groins, and similar structures along the oceanfront except where structures are in imminent danger from the Atlantic Ocean. In that case, temporary erosion control structures including bulkheads or similar structures made of sandbags or comparable materials or low sandbag groins or sandbag sediment trapping structures are allowed in accordance with CRC guidelines.

18. The Town will continue to enforce the standards prescribed by the National Flood Insurance Program for development.

19. The Town of Kitty Hawk will identify the variety of natural and manmade resources within the Town and work to preserve them; encourage retention of forest growth and natural plant communities; maintain a suitable habitat for animals and birds indigenous to the area; and disturb the natural terrain as little as possible.

20. In the interest of preserving and conserving the natural environment, the Town has adopted a Sand Dune Protection Ordinance, a Soil Sedimentation and Erosion Control Ordinance and a special section of the Zoning Ordinance dealing with the development of Kitty Hawk Woods. It is the policy of the Town to enforce these ordinances and to encourage citizens and land owners to protect these resources on a voluntary basis.

21. Although there are several cemeteries, these appear to be at or near capacity. The Town will explore the possibility of expanding one or more of these or creating a new cemetery to accommodate future needs.

22. The Town will consider supporting a comprehensive inventory of archaeologically, architecturally, and/or historically important buildings and areas.\*

#### **Community Facilities and Services:**

23. The Town of Kitty Hawk will attempt to project the community's future water needs in relation to its growth potential and will communicate that information to Dare County.

24. The Town of Kitty Hawk will continue to encourage Dare County to modify the existing water system into "loops" which will help to maintain service in the case of a malfunction in the system.

25. The Town will amend the Subdivision Ordinance to require installation of fire hydrants in all new developments.\*

26. The location of new water wells shall be approved pursuant to the rules and regulations of the appropriate agencies.\*

27. It is the policy of the Town to actively seek the cooperation of the Dare County Health Department in assuring safe septic tank installation and operation in Kitty Hawk.\*

28. The Town of Kitty Hawk will require developers and homeowners' associations proposing and constructing package treatment plants to file with the Town a copy of the management contract between the developer and operator, the package wastewater treatment plan, the rate structure, an engineer's statement that the rate structure's minimum number of users will generate enough revenue to maintain and operate the system, and a bond or other written assurance that such facilities will be properly and continuously maintained.\*

29. Recognizing that there is a strong possibility that portions of the Beach Road may be destroyed by erosion, and that another north-south road in Kitty Hawk Beach is necessary in any case, the Town will take whatever steps are necessary and appropriate to make Lindberg Avenue a viable north-south thoroughfare which could serve as a replacement for the Beach Road if necessary. In order to insure that this remains a viable option, the necessary right-of-way will be acquired as soon as possible.

30. The Town is working with the N.C. Department of Transportation and the beach communities to formulate a plan for a thoroughfare system which will move automobile traffic expeditiously and safely. Because of the commitment of Kitty Hawk to retain its character as a family beach community, the thoroughfare plan should actively consider modes of transportation other than the private automobile, e.g., walking, bicycles, small busses, etc., in an effort to make Kitty Hawk not completely dependent on the automobile for all movement.\*

31. The Town will actively seek to develop a system of bicycle trails and lanes.

32. The Town will continue to give full support to the Beach Central Communications System.

33. It is the policy of the Town of Kitty Hawk to encourage the use of names indigenous to the Outer Banks when choosing names for roads and other highly visible objects, public and private.\*

34. Moor Shore Road and any adjacent right of way will be retained as a public right of way for use by the public in gaining access to Kitty Hawk Bay and other legitimate public purposes.\*

35. Main Road should be improved but only with as little damage as possible to the character and natural environment of Kitty Hawk Woods.\*

36. The Town will encourage the North Carolina Department of Transportation to restore the Mile Posts to their former prominence so that they can once again be used as location indicators.\*

37. Any drains, culverts, bridges and other stormwater management devices which are to be replaced because of damage or road reconstruction will be of an appropriate size to accommodate projected demand to be placed upon them.\*

38. The Town believes the recreational activities provided in this Plan are necessary for the health and welfare of its citizens and visitors and that certain recreational uses of land are appropriate to enhance the health and welfare of the Town. The Town will allow outdoor and indoor sporting activities as set forth in the zoning ordinance as conditional uses provided the activity is harmonious with the environment, promotes the family orientation of the community and provided it is not incompatible with existing land uses of adjoining property owners.\*

39. The Town does not want to promote and encourage amusement parks, carnivals and carnival rides, or go-cart, motorcycle, or terrain vehicle tracks or any recreational use which creates noise loud enough to be heard beyond the property lines of the property or which causes significant amounts of light to be visible off the premises and which, by reason thereof, constitutes a traffic hazard or is not consistent with the public health and welfare of the adjoining property owners.\*

40. The Town will review and amend its zoning ordinance to allow specific sporting activities as conditional uses and establish the standards and conditions prerequisite to the use as well as designate the districts in which the sporting activities may be conducted.\*

41. The Town will formulate an ocean beach and sound access plan, with due consideration to the future growth of its year-round and seasonal populations, and will provide adequate beach access and other recreational facilities for its residents and visitors.

42. The Town will study the need and potential for future recreational facilities on the soundside, bike paths, and additional public beach access points and parking areas.

43. The Town will create a study committee to plan for, develop, and maintain adequate recreational facilities.
44. The Town will improve and maintain all public access areas.
45. To protect public beach access areas from erosion, the Town should keep the areas well-vegetated, stagger sand fencing, and construct walkways across dunes.
46. The Town will enforce its dune protection ordinance to keep people from weakening the barrier dunes as well as those dunes west of U.S. 158.\*
47. The Town will enforce its ordinance to control littering and dumping at public recreation areas.\*
48. The Town will continue to place trash receptacles at the most actively used recreation areas.
49. The Town will acquire by donation or purchase additional useful beach access areas and related parking facilities when property becomes available, giving priority to properties which are or may become unbuildable due to natural causes.
50. The Town will apply for State and Federal funds whenever it is available for acquiring, improving, or maintaining beach access sites, related parking areas, and other public recreation facilities and will cooperate with the State in every way possible to make beach accessways available and operational.
51. The Town will work with Kill Devil Hills, Southern Shores, Dare County, and private organizations leading to funds for recreation facilities.
52. When necessary and appropriate, Currituck Sound and Kitty Hawk Bay should be dredged in limited areas in accordance with relevant State and Federal laws to permit access to those bodies of water from the shores, streams, and canals of the Town of Kitty Hawk.
53. Land is finite in Kitty Hawk. There will never be more than there is now. In fact, because of the constant change on barrier islands, there will probably be less. Public need for land will increase as the Town continues to grow. It is the policy of the Town to accept all feasible offers of donated land and to explore with due diligence all opportunities to buy land at "bargain sales" and to explore opportunities to obtain grants or gifts to be used to buy land.\*

54. It is the policy of the Town to continue to furnish the best possible police services and achieve the goal of national accreditation of the Department.
55. The Town, in cooperation with the volunteer fire department, will continue the ongoing effort to use volunteer firemen to ensure maximum fire protection.
56. The Town, in cooperation with Dare County, will maintain an up-to-date fire hydrant location map and ensure that all hydrants are visible, accessible, and in good operating condition.
57. The Town will continue to require the installation of additional hydrants in new subdivisions and, as warranted, in the expansion of the county water system.
58. The Town will continue to seek the expertise of the police and fire department in the writing of ordinances and appropriate development matters.\*
59. The Town believes that the county's present public school system is adequate to serve Kitty Hawk's present needs and supports the continued study of the system to ensure that it does not fall behind.\*
60. The Town will continue to allow a diversity of educational experience by permitting private schools which are able to satisfy restrictions imposed by the Zoning Ordinance.\*
61. The Town believes that decentralization of the County's library system is warranted and supports the concept of a library in the beach communities.
62. The Town encourages the installation of a "book drop" in Kitty Hawk.\*
63. The Town of Kitty Hawk supports and encourages the ongoing county-wide effort to provide additional 24-hour emergency medical services and a regional health care facility.
64. The Town encourages mental and physical health care professionals to locate in the community.
65. The Town of Kitty Hawk will continue to contract with Dare County for solid waste collection and disposal and to tax residents to cover door-to-door collection as long as this system provides efficient, economical service.
66. The Town will pursue the adoption of policies and ordinances regarding cleaning up existing unauthorized dumps and the removal of derelict automobiles and other unsanitary, dangerous, and unsightly conditions.

67. The Town will vigorously enforce its anti-dumping and anti-littering ordinance.\*

68. The Town will vigorously enforce the noise abatement ordinance.\*

69. The Town, with due regard for environmental considerations and in cooperation with County authorities, will encourage practical insect controls.\*

#### **Mitigating the Impacts of Coastal Storms**

70. It has been shown that bulkheads, revetments, jetties, groins and other structures designed to stiffen the coast and impede the natural processes which are an integral part of the barrier island system tend to increase rather than impede beach erosion, leading to increased risk to property and lives and loss of the public beach, one of the town's most valuable assets. It is, therefore, the policy of the town to prohibit these devices. To do so the Town adopts as its policy the CAMA policies prohibiting these devices and will encourage strict adherence to this policy.\*

71. North Carolina Building Code and the National Flood Insurance Program require that a number of building practices be followed in the coastal area. It is the policy of the Town that these practices be followed and strictly adhered to.\*

72. The Town will take whatever steps are necessary to insure that the Town employees responsible for the enforcement of the Building Code and the Flood Ordinance are properly trained and that their work loads are manageable.\*

73. The Town will join with other local governments to urge that the Building Code be professionally reviewed to insure that it's provisions are adequate for a coastal setting.\*

74. Whenever the Town undertakes to build a new public structure, it will insure that it is designed to withstand the impact of coastal storms.\*

75. The Town will explore the possibility of creating a mutual aid program to secure the services of extra building inspectors following a disaster. It will support any effort by the Coastal Resources Commission to accomplish and coordinate a similar effort.\*

76. It is the policy of the Town to take whatever steps are necessary to insure that property owners continue to be eligible to obtain flood insurance from the National Flood Insurance Program. It is also the policy of the Town to vigorously enforce the provisions of the Flood Protection Ordinance.\*

77. Almost all construction in the Ocean Erodible AEC is precluded by the CAMA rules. The Town supports this policy, will continue to enforce it, and incorporates that policy by reference into this Plan.\*

78. The remainder of Hazard Zone One, with the exception of a small area at the northern most end of the zone, is designated for low density residential use by the Land Use Plan and the Town Zoning Ordinance. This is the present policy of the Town and the Town intends to maintain this policy in the future.\*

79. It is recognized that some lots fronting on the ocean have or may become so shallow, because of erosion, that they cannot be built on. It is the policy of the Town to cooperate with the State and Federal governments, to the maximum extent possible, in the acquisition of these lots.\*

80. It is also the policy of the Town to encourage property owners whose structures are threatened by flooding to take advantage of the Federal Insurance Administration Program offering assistance in moving the structures out of danger. Wherever possible the vacated land should be acquired by the public through dedication or purchase.\*

81. Hazard Zone Four can, according to the SLOSH Study and the NFIP maps, expect serious flooding even in the case of a relatively minor hurricane. This area is also some of the most environmentally sensitive and aesthetically attractive land in Kitty Hawk. It is the Town policy that this area develop, if it develops at all, as low density residential and to this end the existing Zoning Ordinance, the Flood Protection Ordinance and the relevant CAMA rules will be strictly enforced.\*

82. It is the policy of the Town of Kitty Hawk that any reconstruction that follows a disaster or storm related destruction shall take place in accordance with policy existing at the time of the storm. The development that takes place following a storm should have the same characteristics of development allowed at the time of the storm. To this end the Town will consider a moratorium on requests for amendments to the Zoning Ordinance or the Subdivision Ordinance for an appropriate period following an officially declared disaster.\*

83. The Town will explore the possibility of adopting a construction moratorium which would be triggered by a disaster or major destruction caused by a coastal storm or other catastrophe.\*

84. The non-conforming structure section of the Zoning Ordinance should be examined to see if it should be revised to follow this policy.\*

85. There is really very little that Kitty Hawk can do to alleviate the evacuation problem in terms of evacuation per se. It can however, and will, assist the county in whatever way it can to make the evacuation of the county as efficient as possible. The Town will also urge the county and the state to formulate an evacuation plan which recognizes the regional nature of the problem\* .

86. Two of the more significant bottle necks in the evacuation network occur on U.S. 158 on the northern border of Kitty Hawk: one at the bridge and the other at the intersection with Duck Road (S.R. 1203). If indeed bottlenecks do occur at these points, there may be a number of people seeking shelter from the storm. Kitty Hawk Elementary School could possibly function as a shelter but more space may be needed. The Town will urge the County to anticipate this need and deal with it.\*

87. Probably the most significant thing that can be done to alleviate the evacuation problem is to reduce the number of people who need to be evacuated. In this respect Kitty Hawk has clearly taken the lead on the Outer Banks by reducing the allowed density of development. Clearly the evacuation problem is going to get worse, but at least the restraint shown by Kitty Hawk will keep the towns' contribution to that problem of manageable size. The Town will continue its existing low density development policy.

88. The Town will encourage the county to designate more shelters in or near Kitty Hawk.\*

89. Any buildings that the Town undertakes to build will be located and designed to provide evacuation shelter from coastal storms.\*

90. The Town will encourage developers of multi-family projects and hotels to provide evacuation shelters for the residents, employees and occupants of their facilities.\*

91. The Town will actively encourage and participate in multi-jurisdictional programs to inform the public on how to effectively deal with and be a part of Dare County's Evacuation Plan.

92. Septic tanks and package treatment plants are within the jurisdiction of the County Health Department and in some cases the State of North Carolina. They are of concern to the Town, however, and the



Town will urge that these facilities be designed and located so that they will be less likely to be damaged, to cause damage or serious inconvenience by flooding.\*

93. Wells and the water distribution system within Kitty Hawk are also within the jurisdiction of the county and are of great concern to the Town. The Town will urge the county to design the distribution system so that it is less vulnerable to flooding and erosion and also to develop contingency plans for relocating the water main in Virginia Dare Trail right of way if erosion makes it necessary to do so. It will urge the county to play a more active role in the design and location of private wells.\*

94. Most of the roads in Kitty Hawk are a part of the state road system but like all infrastructure are of vital concern to the Town. Within the context of coastal storm hazard mitigation there are three concerns: the proper layout of roads to facilitate evacuation; the design of the roads so that they are free from ponding and flooding; and the proper design of drains, culverts and bridges so that roadways do not become dams or dikes and the cause of flooding. To this end the Town will urge the North Carolina Department of Transportation to incorporate these concerns into their designs as well as the concerns about the design of Kitty Hawk roads and streets elsewhere in this plan.\*

95. Recognizing that there is a strong possibility that portions of the Beach Road may be destroyed by erosion, and that another north-south road in Kitty Hawk Beach is necessary in any case, the Town will take whatever steps are necessary and appropriate to make Lindberg Avenue a viable north-south thoroughfare which could serve as a replacement for the Beach Road if necessary. In order to insure that this remains a viable option, the necessary right-of-way will be acquired as soon as possible.

96. It is the policy, to the extent possible, to prevent the reconstruction of structures which have been substantially damaged and are located in high hazard areas. Where reconstruction of such sites is allowed to take place it will be so only at low densities.\*

97. During reconstruction the Town will limit the construction of public facilities and public structures and the reconstruction of damaged facilities and structures in high hazard areas. Public facilities such as water and roads will be extended or rebuilt in damaged areas only when absolutely essential, and only to such size and degree necessary to serve the level of density existing before the storm.\*

98. During reconstruction the Town will seek to relocate high density structures away from high storm hazard areas.\*

99. All reconstruction will conform to the provisions of the North Carolina building code with particular emphasis on strengthening and elevation provisions.\*

100. The Town will comply with and enforce all CAMA requirements.\*

101. The Town will take advantage of opportunities which may arise to obtain land in hazard areas following a storm utilizing any state or federal applicable laws and funds.\*

102. During reconstruction decision making the Town will seek to encourage redevelopment patterns which recognize and utilize the natural mitigation features of coastal environment. Redevelopment should take into consideration any changes in natural conditions brought about by the storm (e.g., new inlets, changes in drainage, elevation, etc.).\*

103. The Town will make every effort to develop its capacity to identify and orchestrate various post-storm reconstruction resources, while at the same time ensuring maximum local control over the reconstruction process. It will be aggressive in its pursuit of funds for projects which will primarily effect the Town and will coordinate its efforts with those of the County and other beach communities on projects that require joint funding or management.\*

104. The Town will integrate recovery and reconstruction with the broader set of planning goals and objectives for the community.\*

105. The Town will examine the non-conformity section of the zoning ordinance to determine if changes are required.\*

106. It is the policy of the Town to prohibit bulkheads, revetments, jetties, groins and other structures designed to stiffen the coast and impede the natural processes which are an integral part of the barrier island system and tend to increase rather than impede beach erosion. The Town adopts the CAMA policies, standards and rules as of January 1, 1989 and will enforce them.

107. It is the policy of the Town to endorse the building practices of the North Carolina building code and National Flood Insurance Program, to establish practices and standards to construct structures to withstand the many perils of the natural environment including wind, flooding, soil erosion, erosion of building materials caused by salt air, battering from waves and debris laden flood waters, etc.

108. It is the policy of the Town to take whatever steps are necessary to insure that property owners continue to be eligible to obtain flood insurance from the National Flood Insurance Program.

109. It is the policy of the Town to mitigate the impact of coastal storms while recognizing the legal or practical perspective to preclude development in all hazardous areas.\*

110. It is the policy of the Town to continue its low density development plan that reduces the number of people that need to be evacuated to actively participate in multi-jurisdictional programs to inform the public on how to be effective in the Dare County evacuation plan; to seek additional bridges and evacuation centers.\*

#### 111. Land Classification System

#### Land Use Policy and Regulations

112. Kitty Hawk is a modest, tasteful, aesthetically pleasing, low-density, residential community and, therefore, does not wish to promote agriculture, forestry, mining, industry, energy facilities, or offshore drilling support services.

113. The Town will work with Dare County, Kill Devil Hills, and Southern Shores to ensure that zoning and development adjoining its boundaries are compatible with adjacent land uses existing and planned in Kitty Hawk.

The Town will maintain a mix of low-density and medium-density residential uses limiting all residential uses to not more than four units per acre.

114. The Town will study its commercial districts, as currently constituted to determine if they are adequate to meet the community's needs.

115. The Town will thoroughly review areas which constitute high safety hazards along U.S. 158 and N.C. 12 before more development is allowed to occur there, and limit access and egress which adversely impact on public safety or welfare.

116. The Town has created a zoning district in which shopping malls are allowed. It has decided to establish standards for development which will make a mall compatible with the character of the Town.\*
117. The Town will review the existing commercial zones and revise the zoning designation if significant portions of them are developed as residential.\*
118. The Town will consider amending the zoning ordinance to prevent residential development in existing commercial districts except on the second floor.
119. Owners of residential property are entitled to buffers from the sights and sounds of commercial facilities; the Town will give highest consideration to such buffers to protect the community's residential character.
120. The Town does not desire structures in excess of 35 feet and will not encourage high-rise development. The Town's current height standards comply with the community's desires and are consistent with the current scale of development and with the capacity of the fire department.
121. Utility, telephone, cable television, and other transmission lines should be placed underground; whenever and wherever feasible to do so they should be placed within the right of way.
122. The Town's zoning ordinance, subdivision ordinance, and other development and redevelopment policies should address aesthetic concerns and will promote development and redevelopment that is at a scale and uses materials appropriate to its physical surroundings.
123. The natural environment is discussed earlier in this Plan as are the Areas of Environmental Concern (AEC's) defined and protected under the authority of the Coastal Area Management Act. The rules implementing the AEC's in force at the time of the adoption of this Plan are incorporated by reference and made a part of this Plan. It is the policy of the Town that these rules as well as all other laws, regulations and rules, local, state and federal, affecting the development of Kitty Hawk be fairly and equitably enforced.\*
124. Marinas serving recreational boaters and the small scale traditional fishermen found in Kitty Hawk are encouraged; however any such marinas must be designed and located to protect the natural and aesthetic environment.\*

125. The Town does not favor floating homes and/or commercial buildings in the sound or Kitty Hawk Bay. The Town will ascertain the extent of it's jurisdiction to deal with these and take appropriate action.\*

126. Entrances to Kitty Hawk should be studied and plans for their appearance formulated. The Town should obtain the cooperation of Southern Shores so that visitors to the Outer Banks are greeted with a pleasing setting rather than a harsh materialistic cacophony of colors and symbols.\*

127. One of the serious problems confronting many beach communities is that even though most are relatively small it is dangerous, unpleasant and in many cases, virtually impossible, to walk anywhere including in the case of the by-pass, even across the street. A number of policies appear in this Plan that speak to this issue but a major one is land use.\*

- A. The Town encourages development that encourages pedestrian movement such as residential and motel developments providing walkways to the beach and to commercial areas.
- B. The Town will explore with N.C.D.O.T. the possibility of pedestrian cross walks making it possible to cross the by-pass.
- C. The Town will explore means of building and financing the construction of a bike and/or walking trail system throughout the Town.
- D. Cluster development with commercial uses on the first floor and residential uses on the second, especially in the beach area will be encouraged.

128. There appear to be several oceanfront lots owned by the State of North Carolina. The Town will investigate these to see if they can be added to the beach access inventory.\*

129. The Town opposes any development, public or private, in or on the ocean that may pose a threat to the integrity of the natural environment in or adjacent to Kitty Hawk.\*

130. The Town of Kitty Hawk is located on a very fragile barrier island which is subject to the ever changing whims of the environment. The beaches come and go with the season, the weather and the level of the ocean. The Town will not engage in a beach nourishment program within the foreseeable future. If,

however, a beach nourishment program is undertaken by the Town or others, full public use of the existing and nourished portion of the beach must be assured.

### **Implementation**

131. If one of the powers of government is to be used in a way that will affect the characteristics of development in Kitty Hawk, the Land Use Plan should guide the direction of that change.\*

132. The Town of Kitty Hawk is committed to putting this new plan into practical effect by using it constantly and consistently to guide development decisions.\*

133. The Town will designate its professional planner as the official charged with overall development program responsibilities. The Planning Board will have primary responsibility of making recommendations to Council of methods by which policies may be implemented.\*

134. The Planner and Planning Board will formulate semi-annual work programs which target specific objectives and will devise appropriate means for achieving implementation of those objectives. The method of establishing program priorities will be based on an assessment of planning needs and growth management requirements. The work program will be realistic in terms of staff, time, and budget.\*

Policy Transition

The following table shows the transition of policy from the 1983 Land Use Plan to the current Plan.

The columns are:

1. Number of the 1983 Policy
2. The policy statement from the 1983 plan.
3. Disposition of that policy since the adoption of the 1983 plan:

F = Followed

N/F = Not Followed

A = Accomplished

4. Transition of the policy to the current plan:

C = Continued

M = Modified

O = Obsolete (because it has been accomplished)

5. Number of related policy in 1989 Land Use Plan

1.	2.	3.	4.	5.
----	----	----	----	----

POPULATION AND ECONOMY

- |    |   |   |   |   |
|----|---|---|---|---|
| 1. | To keep track of population trends and economic trends in Kitty Hawk and accommodate existing and future economic activities.   | f | m |   |
| 2. | The Town should use every means at its disposal to track and project population growth, including a biennial census patterned after the successful 1981 effort.   | f | m |   |
| 3. | The Town will maintain and promote its appeal as a place to visit and as a place to live by preserving its character as a low-density beach community, by preserving its natural beauty, and by planning for public beach access through the land use plan, zoning and subdivision regulations, and other development policies. | f | m | 2 |
| 4. | The Town will encourage the continuation of independent fishing and crabbing operations as a part of Kitty Hawk's traditional economy.  | f | m | 3 |

USE OF THE LAND

- |    |  |   |   |        |
|----|--|---|---|--------|
| 5. | To promote future development that is located and designed in harmony with the existing low-density, mixed-use character of Kitty Hawk and that preserves the public health, safety, and general welfare.            | f | m | 87     |
| 6. | Kitty Hawk is primarily a low-density, residential community and therefore, does not wish to promote agriculture, forestry, mining, industry or energy facilities.   | f | m | 5, 112 |
| 7. | The Town will work with Dare County, Kill Devil Hills, and Southern Shores to ensure that zoning and development adjoining its boundaries are compatible with adjacent land uses existing and planned in Kitty Hawk. | f | c | 113    |



1.	2.	3.	4.	5.
8.	The Town should maintain a mix of low-density and medium-density residential uses, limiting multi-family dwellings to not more than four units per acre.	f	c	113
9.	The Town will review the existing RS-6 and RS-10 zones and revise the zoning ordinance to reflect the low-density character of the community.	a	o	
10.	The Town's commercial districts, as currently constituted, are adequate to meet the community's needs.	f	m	114
11.	The Town will thoroughly review areas which constitute high safety hazards along U.S. 158 Business before more development is allowed to occur there.	f	c	115
12.	The Town will review the existing commercial zones and revise the zoning designation if they are developed as residential.	n/f	m	118
13.	The Town will change residential development in commercial districts to a conditional use which will follow the ordinance relating to the type of residential development or will amend the zoning ordinance to prevent residential development in existing commercial districts unless they are rezoned to residential.	n/f	m	118
14.	Owners of residential property are entitled to buffers from the sights and sounds of commercial facilities; the Town will give highest consideration to such buffers to protect the community's residential character.	f	c	119
15.	The Town does not desire high-rise structures and will not support high-rise developments.	f	c	120
16.	The Town's current height standards complies with the community's desires and are consistent with the current scale of development and with the capacity and capability of the fire department.	f	c	120

1.	2.	3.	4.	5.
17.	Utility, telephone, cable television, and other transmission lines should be placed underground whenever and wherever feasible to do so.	f	m	121
18.	The Town's zoning ordinance, subdivision regulations, and other development policies should address aesthetic concerns and should promote development that is at a scale and uses materials, appropriate to its physical surroundings.	f	c	4, 122

#### NATURAL ENVIRONMENT

19.	To protect Kitty Hawk's valuable natural resources for use and enjoyment by residents, visitors, and future generations.	f	c	
20.	To promote the proper design of development in hazardous areas for protecting public safety.	f	c	
21.	Due to the size of the lots of residential development, the design of subdivisions (which has left the more unfavorable soils as open space and the favorable soils for on-site sewage disposal), the Town of Kitty Hawk will be able to accommodate future growth on septic systems. It is not anticipated that a public sewer system will be necessary.	f	m	
22.	The Town of Kitty Hawk recognizes that the identification and protection of AECs is one of the central concerns of the Coastal Management Program for North Carolina. Governmental intervention in land development is necessary to assure the proper functioning of the physical and biological systems.	f	c	11
23.	The Town of Kitty Hawk will work with the appropriate State and Federal agencies on conserving, managing, and protecting all estuarine waters and their vital components.	f	c	12

1.	2.	3.	4.	5.
24.	The Town of Kitty Hawk recognizes the importance of coastal wetlands as a breeding ground for fish, shrimp, and certain animals, birds, and plants. No specific development activity is currently permitted within this AEC.	f	c	13
25.	The Town will work with the appropriate State and Federal agencies in protecting the integrity of all public trust waters within the Town of Kitty Hawk.	f	c	14
26.	The Town will work closely with the County Health Department and with the State Office of Coastal Management in managing estuarine shorelines.	f	c	15
27.	Within the ocean erodible areas, the Town will maintain the line of oceanfront sand dunes by protecting the vegetation which stabilizes the dune system and by eliminating further development in these areas.	f	c	20
28.	The Town encourages the construction and installation of wooden walkways and steps to the beach, elevated observation of platforms, and sand fences in areas where erosion has occurred. The Town will prohibit private bulkheads, jetties, groins, and similar structures along the oceanfront except where structures are in imminent danger from the Atlantic Ocean. Implementation of this policy is through the CAMA permit-letting process, and enforcement of the beach driving and dune driving ordinances. The Town favors the use of groins, bulkheads, jetties, and other similar structures to protect State roads, municipal streets, and public utility systems. The Town opposes spending municipal funds to construct such structures to protect private property.	f	m	130,17,106
29.	The town will enforce the standards prescribed by the National Flood Insurance Program for development in the high hazard flood areas.	f	m	18,107

1.	2.	3.	4.	5.
30.	The Town of Kitty Hawk will identify the variety of natural and manmade resources within the Town and work to preserve them; encourage retention of forest growth and natural plant communities; maintain a suitable habitat for animals and birds indigenous to the area; and disturb the natural terrain as little as possible.	f	c	19
31.	Until the Town can develop other appropriate ordinances and means of enforcement, the Town and the Planning Board will encourage citizens to protect such resources on a voluntary basis.	f	m	
32.	Although there are several cemeteries, these appear to be at or near capacity. The Town will explore the possibility of expanding one or more of these or creating a new cemetery to accommodate future needs.	n/f	c	21
33.	The Town will vigorously enforce its anti-dumping and anti-littering ordinance with cooperation from citizen volunteers.	f	m	
34.	The Town Council should recruit a volunteer Litter Control Officer to enlist other citizen volunteers to clean up Kitty Hawk's roadsides and trash dumps, as well as to patrol the more abused sites to discourage further dumping.	f	o	
35.	The Town Council should investigate the possibility of using the prison labor force to deal with the larger unauthorized dumps.	f	o	
36.	The Town will vigorously enforce (in cooperation with the Dare County Sheriff's Office or the Kitty Hawk Police Department), the noise abatement ordinance.	f	m	
37	The Town, with due regard for environmental considerations and in cooperation with county authorities, will encourage systematic spraying and other practical insect controls.	f	m	

1.	2.	3.	4.	5.
<b><u>COMMUNITY FACILITIES AND SERVICES</u></b>				
38.	To provide the residents of Kitty Hawk with efficient services adequate to meet their needs for recreation, safe roads, safe water supplies, education, health, and safety.	f	m	
39.	The Town of Kitty Hawk will vigorously pursue extending the Dare County water system into unserved areas where growth is anticipated.	f	c	6
40.	The Town of Kitty Hawk will attempt to project the community's future water needs in relation to its growth potential.	f	c	7, 23
41.	The Town of Kitty Hawk will encourage Dare County to modify the existing system into "loops" which will help to maintain service in the case of malfunctions in the system.	f	c	8,24
42.	The Town of Kitty Hawk will require developers and homeowners' associations proposing and constructing "package" wastewater treatment plants to file with the Town a copy of the management contract between the developer and operator, the package wastewater treatment plan, the rate structure, an engineer's statement that the rate structure's minimum number of users will generate enough revenue to maintain and operate the system, and a bond or other written assurance that such facilities will be properly and continuously maintained.	f	c	10
43.	The Town of Kitty Hawk should identify those public streets in the community which the local or state government is obligated to maintain.	a	o	
44.	The Town will develop a policy for bringing private streets into the Town maintenance system.	a	o	
45.	The Town of Kitty Hawk, in cooperation with the towns of Kill Devil Hills, Nags Head, and Southern Shores, will work to expedite the creation of a uniform street-naming and numbering system.	a	m	

1.	2.	3.	4.	5.
46.	<p>Recognizing that there is a strong possibility that portions of the Beach Road may be destroyed by erosion, and that another north-south road in Kitty Hawk Beach is necessary in any case, the Town will take whatever steps are necessary and appropriate to make Lindberg Avenue a viable north-south thoroughfare which could serve as a replacement for the Beach Road if necessary. In order to insure that this remains a viable option, the necessary right-of-way will be acquired as soon as possible.</p>	f	c	95
47.	<p>The Town will formulate a beach access plan, with due consideration to the future growth of its year-round and seasonal populations, and will provide adequate beach access and other recreational facilities for its residents and visitors.</p>	f	c	41
48.	<p>The Town should study the need and potential for future recreational facilities on the soundside, bike paths, and additional public beach access points and parking areas.</p>	f	c	42
49.	<p>The Town should create a study committee to plan for, develop, and maintain adequate recreational facilities.</p>	f	c	43
50.	<p>The Town will improve and maintain all public access areas.</p>	f	c	44
51.	<p>To protect public beach access areas from erosion, the Town should keep the areas well-vegetated, stagger sand fencing, and construct walkways across dunes.</p>	f	c	45
52.	<p>The Town should adopt strong ordinances to keep people from weakening the barrier dunes.</p>	a	m	46
53.	<p>The Town should adopt strong ordinances to control littering and dumping at public recreation areas.</p>	a	m	47
54.	<p>The Town should place trash receptacles at the most actively used recreation areas.</p>	a	m	48

1.	2.	3.	4.	5.
55.	The Town should acquire additional useful beach access areas and related parking facilities when property becomes available, giving priority to properties which are or may become unbuildable due to natural forces.	f	c	49
56.	The Town should apply for State and Federal assistance whenever it is available for acquiring, improving, or maintaining beach access sites, related parking areas, and other public recreation facilities and will cooperate with the State in every way possible to make beach accessways available and operational.	f	c	50
57.	The Town will work with Kill Devil Hills, Southern Shores, Dare County, and private organizations leading to funds for recreational facilities.	f	c	51
58.	When necessary and appropriate, Currituck Sound and Kitty Hawk Bay should be dredged in limited areas in accordance with relevant State and Federal laws to permit access to those bodies of water from the shores, streams, and canals of the Town of Kitty Hawk.	f	c	52
59.	The Town should regularly review and actively participate in updating the Dare County Evacuation Plan.	f	c	
60.	The Town should arrange periodic briefings of the citizenry, in public meetings with the Dare County Evacuation Plan's coordinators, regarding evacuation procedures and the location and staffing of traffic control points and emergency first aid stations.			91
61.	The Town should urge the N.C. Department of Transportation to proceed with plans and studies that will improve and/or increase the evacuation capacity of existing roads and bridges.	f	m	
62.	The Town should give high priority to Providing for immediate police protection needs.			54

1.	2.	3.	4.	5.
63.	The Town, in cooperation with the fire department, should give high priority to an ongoing study of means to ensure maximum fire protection.	f	m	55
64.	The Town, in cooperation with Dare County, should maintain an up-to-date fire hydrant location map and ensure that all hydrants are visible, accessible, and in operating condition.	f	c	56
65.	The Town should continue to require the installation of additional hydrants as warranted by expansion of the county water system.	f	c	57
66.	The Town should give full support to the Beach Central Communications System.	f	c	32
67.	The Town of Kitty Hawk should continue to contract with Dare County for solid waste collection and disposal and to tax residents to cover door-to-door collection as long as economically possible.	f	m	65
68.	The Town should develop a garbage collection and disposal ordinance including requirements for garbage can racks.	a	o	
69.	The Town should adopt policies and ordinances regarding cleaning up existing unauthorized dumps and the removal of derelict automobiles and other unsanitary, dangerous, and unsightly conditions.	f	c	66
70.	The Town believes that the County's present public school system is adequate to serve Kitty Hawk's present needs and the needs of the immediate future.	f	m	
71.	The Town believes that decentralization of the County's library system is warranted at this time.	f	m	61
72.	The Town of Kitty Hawk should support the ongoing county-wide effort to provide 24-hour emergency medical services and a regional health care facility.	f	m	63



1.	2.	3.	4.	5.
73.	The Town should encourage health care professionals to locate in the community as its population expands.	f	c	64

**PUBLIC PARTICIPATION**

74.	To ensure a strong public voice in the government of the Town of Kitty Hawk.	f	c	1
75.	The Town of Kitty Hawk will continue to encourage active public involvement in the planning process and in all development management decisions by officially notifying the public about the times and agendas of Planning Board and Town Commission meetings and by periodically conducting public opinion surveys.	f	c	1