AUG 1987

1986 LAND USE PLAN UPDATE

COASTAL ZONE
INFORMATION CENTER

TOWN OF PINE KNOLL SHORES , N.C.

JULY 24 , 1987

HD
211
.N8
L3
1987

ration of this report was financed in part through a grant by the North Carolina Coastal Management Program, through funds by the Coastal Zone Management Act of 1972, as amended, which is ed by the Office of Ocean and Coastal Resources Management,

RESOURCES COMMISSION CERTIFICATION JULY 24 , 1987
PINE KNOLL SHORES ADOPTION JUNE 28 , 1987

1987 LAND USE PLAN UPDATE

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

THE TOWN OF PINE KNOLL SHORES, NORTH CAROLINA

BOARD OF COMMISSIONERS - Kenneth A. Hanan - Mayor
Aubrey P. Johnson
Frederic C. Libby
John W. Shedd
Daniel Sotir
Emily O. White

LAND USE PLAN UPDATE COMMITTEE - Frederic C. Libby, Chairman
Robert D. Armstrong
Arthur E. Browne
Ellen L. Crumley
H. Kenneth Haller
Morgan P. Hammer
Lawrence B. Jerome
Edwin B. Olson

PLANNING CONSULTANT - Paton-Zucchino & Associates, P.A.
Landscape Architects - Land Planners

July 7, 1987

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

Property of CSC Library

HD211.N8 L3 1987
1234738

FEB 3 1988

PINE KNOLL SHORES, NORTH CAROLINA
LAND USE PLAN - 1986 UPDATE

TABLE OF CONTENTS

		Page
I.	INTRODUCTION	1
II.	DEVELOPMENTS WITHIN THE PAST FIVE YEARS	2
III.	1986 PROPERTY OWNERS SURVEY	5
IV.	ANALYSIS OF EXISTING CONDITIONS	7
	A. Present Conditions	7
	1. Population Projection	7
	2. Existing Land Use Analysis	9
	3. Land Compatibility Problems	13
	4. Areas Likely to Experience Changes in Predominant Land Use	13
	5. Current Land Use Regulations	13
	B. Constraints: Land Suitability	14
	1. Hazard Areas	15
	2. Areas With Soils Limitations	15
	3. Fragile Areas	15
	4. Areas With Resource Potential	17
	5. Areas of Environmental Concern	17
	C. Constraints: Capacity of Community Facilities	18
V.	POLICY STATEMENTS	19
	A. Implementation of 1981 Land Use Plan Policies	19
	B. Policy Statements	23
	1. Resource Protection	24
	2. Resource Production and Management	28
	3. Economic and Community Development Policies	29
	4. Continuing Public Participation	31
	5. Storm Hazard Mitigation	32

C. Storm Mitigation, Evacuation and Post Disaster Recovery Plans 33

1. Storm Hazard Mitigation 33
2. Hurricane Evacuation Plan 35
3. Post-Disaster Recovery Plan 38

VI. LAND CLASSIFICATION 41

A. Developed Classification 41

B. Conservation Classification 42

VII. RELATIONSHIP OF POLICIES AND LAND CLASSIFICATION 43

A. Developed Classification 43

B. Conservation Classification 44

VIII. PUBLIC PARTICIPATION 45

IX. ACCEPTANCE OF THE 1986 LAND USE PLAN UPDATE BY THE BOARD OF COMMISSIONERS 45

LIST OF MAPS

Existing Land Use Map 11
Future Land Use and Classification Map 12
Hazards Map 16

LIST OF TABLES

Table 1: Existing and Projected Living Units. 8
Table 2: Peak Population Summary Comparison 1981-1986. 8
Table 3 1986 and Build-out population by Dwelling Type and Residency. 8
Table 4 Comparison of Peak Summer Population Estimates. 9
Table 5: Land Use Acreage by Zoning Classification: 1986. 10
Table 6: Building Trends in Pine Knoll Shores: 1981-1986 10
Table 7: Hurricane Forces Associated with Town Environments. 34

APPENDICES

Appendix A: 1986 Property Owners Survey 45
Appendix B: Listing of Plans, Policies and Regulations 48

I. INTRODUCTION

This 1986 Land Use Plan Update for Pine Knoll Shores has been prepared in accordance with requirements of the North Carolina Coastal Area Management Act (CAMA), and complies with Subchapter 7B, Land Use Planning Guidelines of the North Carolina Administrative Code as amended February 11, 1985.

Land development takes place as the result of a series of decisions by private individuals and government. If left entirely to chance, the resulting pattern of development in a locality may well not be in the best overall community interest. In order to promote this community interest for both present and future generations, this land use plan has been developed, adopted and will be kept current by the Town of Pine Knoll Shores.

The land use plan is a framework that will guide town leaders as they make decisions affecting development. Private individuals and other levels of government will also use the plan to guide their land use decisions. Use of the plan by these groups will lead to more efficient and economical provision of public services, protection of natural resources, sound economic development, and protection of public health and safety.

Many decisions affecting development are made by other levels of government, and local policies must take account of and coincide with established state and federal policies. Most decisions, however, are primarily of local concern. By carefully and explicitly addressing these issues, other levels of government will follow local policies that deal with these issues. State and federal agencies will use the local land use plans and policies in making project consistency, funding and permit decisions.

Since the inception of the land use planning requirements under CAMA, the land use plans have placed their emphasis on different aspects of the planning process. The focus of the 1976 Land Use Plan was to gather base data about the Town. The 1981 Land Use Plan updated these data and placed an additional emphasis on the formulation of land use policies. The 1986 Land Use Plan takes this concept one step further by refining former policies and tying them to implementation strategies so they can have the desired impact on the community.

II. DEVELOPMENTS WITHIN THE PAST FIVE YEARS

A. ZONING AND ANNEXATION

Only limited zoning ordinance and map changes have taken place since 1981. These are: 1) 10.6 acre tract at the corner of Roosevelt Drive and Pine Knoll Boulevard was rezoned from C-2 to the C-3 classification and later rezoned from C-3 to the Recreation Zone; 2) A second tract with 500 feet of oceanfront located south of the Roosevelt Natural Area was rezoned from C-2 to a combination of R-4 and Recreation classifications; 3) In addition, two zoning density changes were made during this period; multifamily density was reduced from ten to eight units per acre and motel density was increased from eight to 22 units per acre; 4) A new zoning classification, the Institutional Zone, was established and applied to the 63 acre Trinity Center. This property was annexed in 1984. 5) A six acre C-2 tract located at the westernmost end of the Town, was also annexed in 1984. This property is 250 feet wide and extends from the ocean line to the sound shore line except for that area containing NC Highway 58.

B. RECREATIONAL AREAS

Since the preparation of the Land Use Plan of 1981, existing private recreational areas have been maintained and expanded. Those areas include two ocean access parks, a boat basin opening to Bogue Sound with tie-up and boat launching facilities and a mini park ("Brock Basin"), a boat basin opening on the canal ("Hall Haven"), a park with boat launching facilities on Bogue Sound ("McNeill Inlet"), a small park with a boat launching ramp opening on the canal ("Davis Landing"), and a small park on the Sound side of Oakleaf Drive ("Garner Park"). The Bogue Banks Country Club and the state-operated Theodore Roosevelt Natural Area, comprising 93 and 309 acres respectively, also continue to serve as important recreation resources for the Town. A small park is presently being developed on the canal at the eastern end of Ramsey Drive at the intersection of Arborvitae Court.

An additional 10.6 acre tract south of Roosevelt Drive was added to public conservation park lands during the past planning period. With the exception of the 10.6 acre tract, the Town owns no recreation area.

In addition, condominium developments constructed during the last five years offer beach access, swimming pools, tennis courts and other recreational facilities to residents and guests.

C. POLICE, FIRE, AND RESCUE

With the population of the Town increasing, the police force has grown from five to six policemen and now has three patrol cars with 24-hour service available throughout the Town.

The fire department has grown too, and while it is still a volunteer group, the equipment now owned by the Town includes a general fire truck, a brush fire truck and a "first responder mini-pumper" truck. There are 28 volunteer firemen (December 1986).

With the larger population and influx of summer visitors, the rescue squad has increased in personnel and equipment. Another fully equipped ambulance was acquired in November of 1983, so now there are two ambulances available. The rescue squad is strictly volunteer and, like the fire department, is ready for service 24 hours a day. There are 26 members of the rescue squad (December 1986).

D. UTILITIES

Private utility companies continue to provide water, electric power and telephone service to the Town. These services have been expanded to meet the Town's needs during the past planning period.

In 1981 there were two wells in production and one 150,000 gallon storage tank. Two additional wells are in production at this time. One, a ten-inch well produces 500 gallons per minute and a second, an eight-inch well, produces 425 gallons per minute. Approximately 5,500 feet of eight-inch line and approximately 3,000 feet of six-inch line have been installed. In addition, a 250,000 gallon elevated storage tank has been erected at the western end of town. There are, therefore, four wells and a storage capacity of 400,000 gallons and a pumping capacity of two million gallons per day.* The water system is owned and operated by Carolina Water Service.

Pine Knoll Shores is the location of one of Carteret Craven Electric Membership Corporation's substations. Transmission lines have been extended, with Pine Knoll Shores and others being served by lines carrying 115,000 volts.

Pine Knoll Shores is now served from a remote electronic telephone switching facility near the North Carolina Aquarium at Pine Knoll Shores. Carolina Telephone & Telegraph is in the process of updating its equipment, and soon the most modern Western Electric switching system will serve Pine Knoll Shores.

Single-family lots within the Town are served by individual septic systems. All undeveloped lots are capable of supporting individual septic systems. At this time, all multifamily developments within the Town have plans for additional sewage capacity to accommodate each

* Figures supplied by Carolina Water Service.

project's unit build-out. Other than individual package treatment systems for condominium, motel and commercial developments, there is no overall central sewage system for the Town. Part of the western end of the Town is serviced by a private community system with a planned capacity of 240,000 gpd and represents the largest single sewage system in the Town.

E. STORMWATER RUNOFF

Serious flooding developed in several sections of town as a result of two unusually heavy rainstorms which occurred in the spring of 1983 and the fall of 1985. A special committee under direction of the Commissioner of Streets and Highways is now studying stormwater runoff problems from NC Highway 58 and its control within the Town, with a plan for remedial action to follow. In the past five years, the impact of stormwater runoff on water quality has become increasingly better understood. As coastal communities continue to grow, the impact of development generated run- off will need more attention if the quality of coastal waters is to be maintained. The Town recognizes the specific water quality problems in the Town canals which, in part, can be attributed to stormwater runoff from NC 58. As state regulations and policies are enacted to control stormwater runoff, the Town will need to review its land use regulations to assure consistency in this effort to maintain high water quality levels.

F. STREET IMPROVEMENTS

The Town has 10.9 miles of town-owned and maintained streets and has five miles of N.C. Highway 58. Approximately three miles of Pine Knoll Shores roads were resurfaced in 1983. No serious problems are currently evident. An ongoing program provides for future resurfacing as the need arises. Private contractors continue to be used for maintenance of town roads and roadway shoulders. Maintenance of NC Highway 58 continues to be the responsibility of NCDOT. There is currently a Town capital improvement budget for roadways and bridges of $60,000 with $ 10,000 being added each year.

Traffic counts show that Highway 58 carries 18-20,000 vehicles per day in peak (summer) season and 2,500-4,000 vehicles per day in off (winter) season with the lower number for an average weekday and the higher number for an average weekend day.*

* N.C. Department of Transportation, 1985 study of N.C. 58 in Pine Knoll Shores.

III. 1986 PROPERTY OWNERS SURVEY

All owners of property in Pine Knoll Shores were mailed a questionnaire on December 26, 1985, to be returned by January 10, 1986. The purpose was to determine how the property owners feel about the way the community has developed over the past years, and to obtain suggestions for future improvements.

A total of 1,507 questionnaires were mailed, of which 881 were returned for a 58.5% response. Because of this high rate of response, information collected is significantly representative of all Pine Knoll Shores residential property owners.

Nearly 80% of the respondents own a residence, and 20% own unimproved lots in Pine Knoll Shores. Among the residents, 56% own a single-family home and 44% own a unit in a multifamily structure. Pine Knoll Shores is the principal place of residence of 36% of respondents owning either a single-family home or a unit in a multifamily structure, and 64% of property owners (single-family or multifamily) do not make Pine Knoll Shores their principal place of residence.

When asked if they are satisfied with the way Pine Knoll Shores is evolving, 78% said yes. Concerning satisfaction with the present zoning of Pine Knoll Shores, 81% expressed satisfaction. Those expressing dissatisfaction based their objections mainly on the proliferation of condominiums and motels, and the proposed village shopping center.

Approval or disapproval of locating another state-built bridge from the mainland to Pine Knoll Shores was requested. Of those responding, 54% would disapprove, 39% would approve, and 7% had no opinion.

When advised the State has adopted a program for establishing beach access facilities for the non-resident general public, 87% would not favor having such a facility in Pine Knoll Shores, and 13% would favor having it here. Only 9% of those expressing an opinion think Pine Knoll Shores should provide funds for such a facility, and 91% think the Town should not.

A question about the kind of community that is wanted was repeated from the 1975 survey. The results are compared:

What Kind of Community is Wanted?	1975	1985
A. Residential and retirement family resort with commercial developement to serve community only.	68%	69%
B. Same as above but with more general commercial.	11%	9%
C. About equal number of single-family homes, condominiums, motel rooms, with supporting commercial.	11%	8%
D. Basically a retirement community.	9%	13%
E. Unrestricted development of tourist attractions.	1%	1%
TOTAL	100%	100%

The foregoing indicates that, currently, 82% of respondents basically want a retirement community that is a residential family resort with commercial development to serve the community only. This is up 5% from the 77% result of the 1975 survey. It should be noted that categories A. and D. were combined to reach this conclusion. Further, categories B. and C. dropped slightly from 1975 to 1985.

Certain other questions not relating directly to land use will be discussed in other sections of this document. Furthermore, a comprehensive analysis of the survey has been referred to the Board of Commissioners for its consideration. A copy of the survey form can be found in the appendix of this report.

IV. ANALYSIS OF EXISTING CONDITIONS

A. PRESENT CONDITIONS

Projections of population data have been made using a number of available sources including the 1980 and July 1984 census estimates, figures from the 1980 land use plan, town building and land use data, and information from individuals knowledgable about the Town. It is difficult to make accurate population projections for beach communities which have large seasonal population fluctuations and relatively small permanent populations. For this reason, a series of standard criteria have been established to assist in projecting population trends for the Town.

1. Population Projections

The data and projections made in the tables below make a number of assumptions concerning the peak population projections for the town: 1) that the percentage of permanent residents for single-family homes versus multifamily units is 75% and 5% respectively and in the future is anticipated to be 75% and 20% respectively; 2) that the occupancy rate is 2.25 per single-family home; 4.0 for multifamily; and, 3.0 for motel rooms; (These rates are consistent with professionals knowledgeable about occupancy rates for the area) and, 3) that the day visitor population is relatively low for a beach community due to the minimum number of facilities and services oriented to the day visitor. Only the North Carolina Aquarium at Pine Knoll Shores, the new Trinity Center, the Iron Steamer Fishing Pier, Bogue Banks Country Club, and the proposed Pine Knoll Village Shopping Center could be considered as attractions for day visitors. An assessment of day visitor population is used only for making ultimate peak seasonal population projections.

Table 1 compares the existing and projected living units by unit type. The data suggest that the surge in multifamily construction during the planning period will stabilize and that as many single-family units remain to be built as are already constructed in the Town. The number of motel units will also increase significantly over current numbers by build-out.

Table 2 reveals a large increase in the multifamily population as compared to the single-family population which has a considerably higher assigned permanent residency factor. The multifamily peak seasonal population increased significantly, 293% over the period with an increase of peak seasonal population of 3,284. The single-family peak seasonal population increased 57% over the period, a percentage comparable to the 1976-1981 period.

Tables 3 and 4 compare peak summer population and total build-out population by housing type and by resident type. The contribution of population by each dwelling type through the period is shown in Table 3. It is of interest to note in Table 3 that the percentage of year-around residents as compared to peak population for all

housing types combined was 23% in 1980, 18% in 1986, and is projected to be 31% at build-out. These data point to the ready availability of multifamily zoned land during this period. Multifamily construction produced 1,101 units during the period. The next 15 years will result in considerably more single-family construction and a resultant increase in the percentage of year-around residents living in the community with a significant decrease in multifamily construction.

Table 1: Pine Knoll Shores Existing and Projected Living Units*

	Single-Family	Multifamily	Motel	Total
Completed or Approved as of March 1, 1986	561	1,101	515	2,177
Yet to be Built	577	270	216	1,063
Maximum Anticipated (build-out)	1,138	1,371	731	3,240

Table 2: Pine Knoll Shores Peak Population Summary Comparison* 1981-1986

Dwelling Type	1981	1986	Person Increase	% Increase
Single-Family	803	1,262	459	57 %
Multifamily	1,120	4,404	3,284	293 %
Motel	1,674	1,545	(129)	-8 %
Institutional*	0	275	275	- %
Total	3,597	7,486	3,889	108 %

Table 3: 1986 and Build-out Population by Dwelling Type and Residency*

1986	Single-Family	Institutional	Multifamily	Motel	Total
Year-Around	947	4	220	100	1,271
Summer Peak	1,262	275	4,404	1,545	7,486
Build-out					
Year-Around	1,920	4	1,097	200	3,221
Summer Peak	2,561	275	5,484	2,193	10,513

*Data Source: Town Building Inspector

Table 4: Comparison of Peak Summer Population Estimates*

Dwelling Type	1975	1981	1986	Build-out
Single-Family	500	803	1,262	2,561
Multifamily	500	1,120	4,404	5,484
Motel	1,700	1,674	1,545	2,193
Institutional**	0	0	275	275
Total	2,700	3,597	7,486	***10,513

The structure of the population for any coastal or beach community can generally be expected to have a strong trend toward seasonal populations. Although Pine Knoll Shores possesses this characteristic, the relative lack of day attractions, services and facilities for day visitors has led to a greater percentage of the peak population being permanent residents than may be found in other similarly sized beach communities on the North Carolina coast. Pine Knoll Shores will continue to deal with the constraints placed on community facilities and services by such a population composition.

2. Existing Land Use Analysis

The Town of Pine Knoll Shores is a planned community which not only has been developed to a considerable degree but also is a community in which the land use patterns within the Town limits have been fixed and have remained relatively unchanged during the past ten years. Much of the undeveloped land has been either platted for single-family lots, master planned for fixed maximum densities and housing types, is in resources protection areas or assigned as permanent open space in the form of parks, natural areas, water bodies and beaches. There is no significant undeveloped property at this time which could be expected to change drastically in terms of anticipated land use or density. (See Existing Land Use Map).

The land use changes since 1981 have come primarily from the conversion of undeveloped but already zoned land into multifamily housing tracts, and single-family home development on pre-platted lots. All substantially sized land tracts, those greater than 25 acres in size, have been developed during the

*Data Source Town Building Inspector

**Institutional represents the Trinity Center

***The build-out population figure of 10,513 differs from the 1981 plan estimate of 9,260 as a result of the increase in occupancy rates used for determining occupancy in multifamily units; the annexation of additional multifamily and institutional lands; and, the changes in zoning density for multifamily buildings and motels.

See section IV.A.1 for population projection assumption.
period from 1981 to 1986 or have been planned and zoned for future development.

Within the Town's corporate limits are 1,497 acres of land, water, vegetated wetlands and beachfront. The length of beach front within Town limits is now 4.7 miles. The Town recently annexed approximately 69 acres along its western limits and at that point is contiguous to the Town limits of Indian Beach. To the east, the Town has no intention of further annexation. Atlantic Beach has expressed some interest in the annexation of this property. This situation suggests that all planning projections should focus on community facilities, services, and upgrading existing developments currently within the Town. Table 5 shows the acreages within the Town limits for 1986.

*Table 5: Pine Knoll Shores Land Use Acreages by Zoning Classification** : 1986

Single-Family Residential, R-1,R-2,R-3,R-4	716
Multifamily Residential, C-2	180
Commercial, C-1	57
Commercial, C-3, C-4, C-5	35
Institutional	63
Municipal Services: C-6	23
Recreational: Rec-1, Rec-2 and Rec-3	423
Total Acres***	1,497

* Planimetered 1986 from town zoning maps.
** Reference Pine Knoll Shores Zoning Ordinance for definitions.
*** Total Acres includes all roadways within Town limits.

Building trends for the town summarized in Table 6 show the changes since 1981.

Table 6: Building Trends in Pine Knoll Shores: 1981-1986

	1981 Units	1986 Units	Changes in Units 1981 - 1986	% Change
Single-Family	357	561	204	57 %
Multifamily (Condo)	280	1,101	821	293 %
Motel	558	515	*(-43)	-8 %
Totals	1,195	2,177	982	82 %

*Reduction in motel units resulted in conversion of an existing motel to condominium units

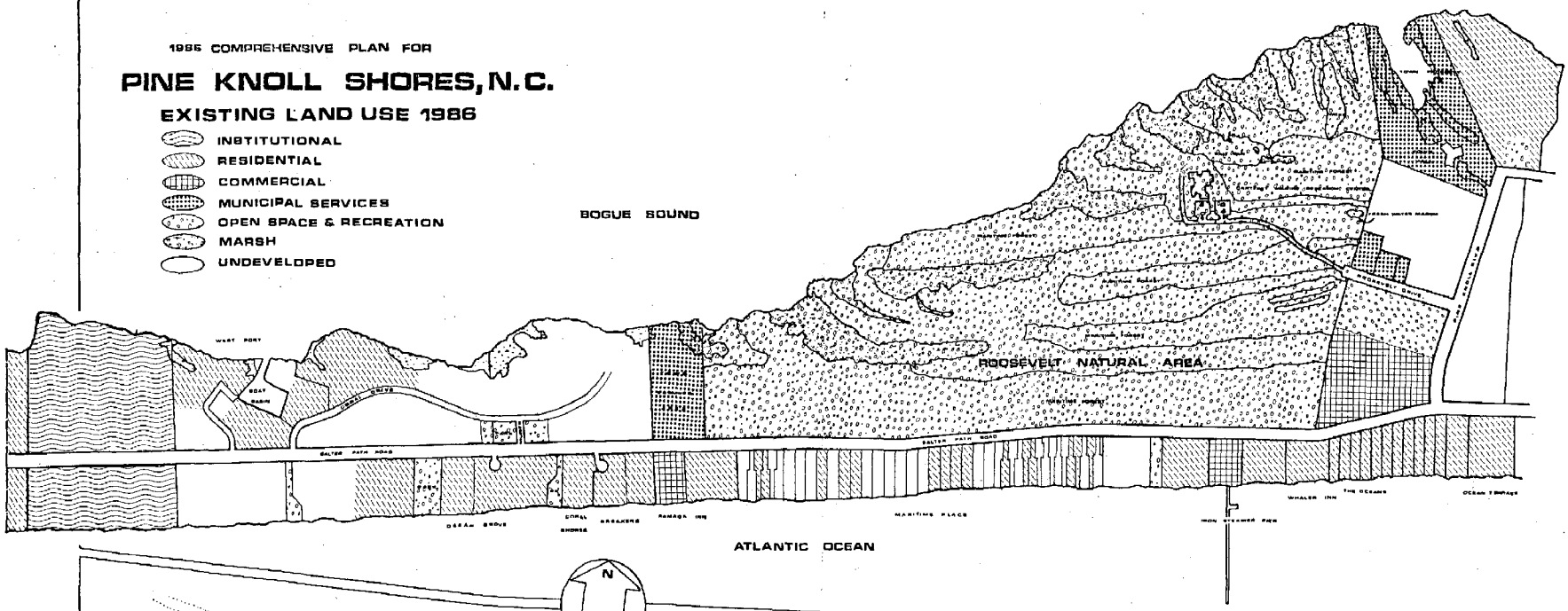
It is evident from the data that the strongest building trend during the past five years has been the construction of 763 multifamily units with an additional 338 units under construction in 1986. The rate of single-family construction has remained relatively constant as compared to the 1976-1981 period.

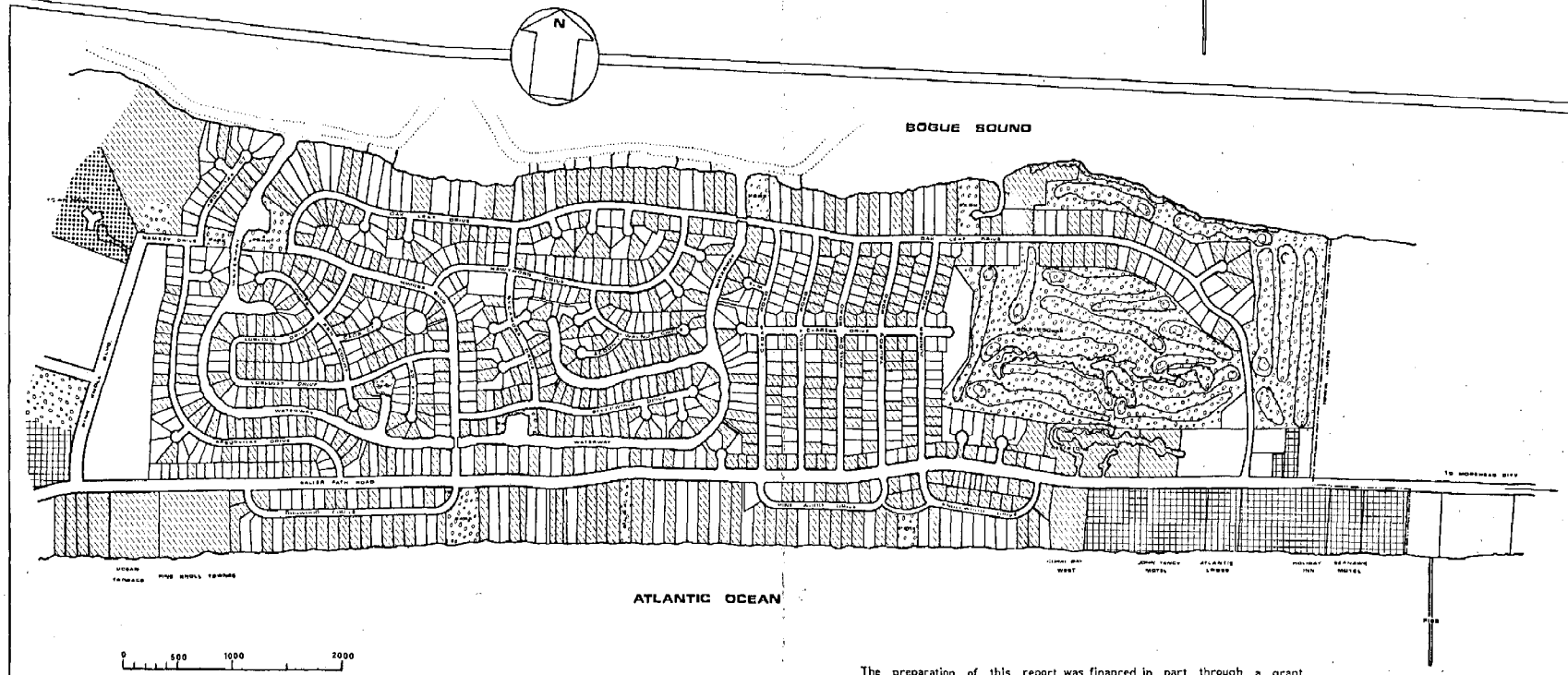
1986 COMPREHENSIVE PLAN FOR

PINE KNOLL SHORES, N.C.

EXISTING LAND USE 1986

- INSTITUTIONAL
- RESIDENTIAL
- COMMERCIAL
- MUNICIPAL SERVICES
- OPEN SPACE & RECREATION
- MARSH
- UNDEVELOPED





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

1986 COMPREHENSIVE PLAN FOR

PINE KNOLL SHORES, N.C.

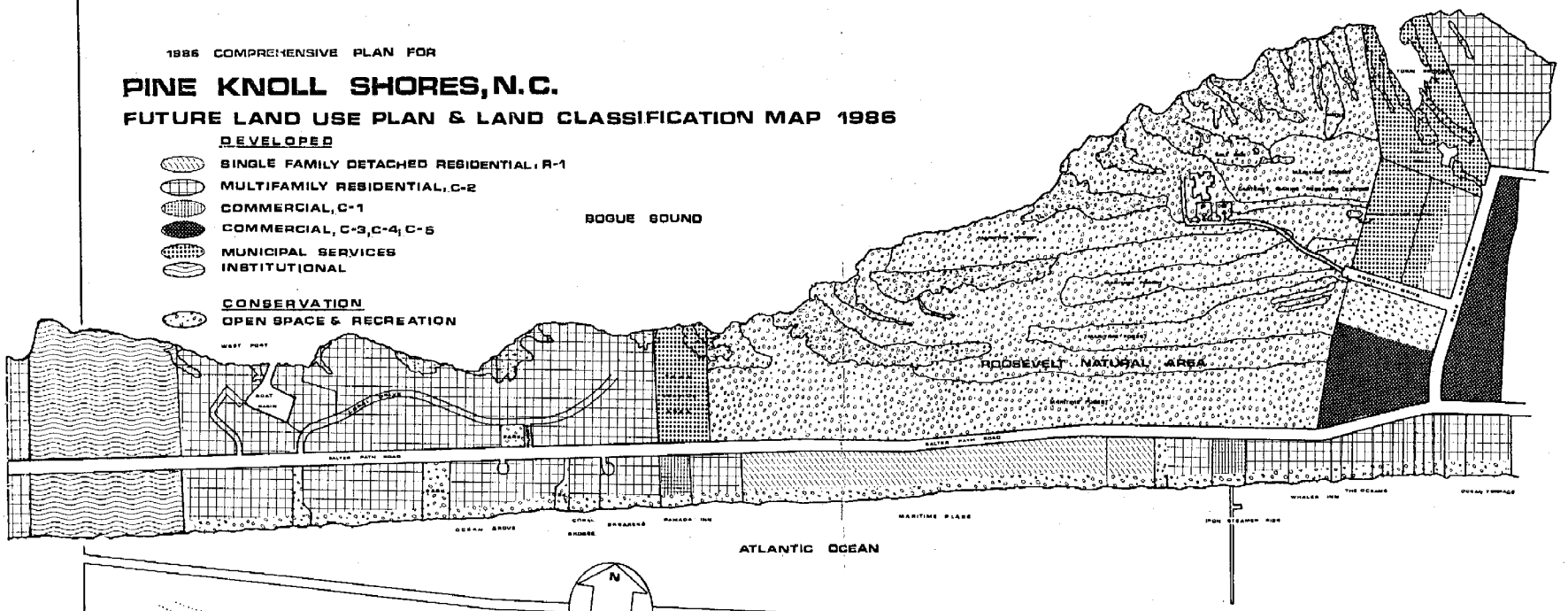
FUTURE LAND USE PLAN & LAND CLASSIFICATION MAP 1986

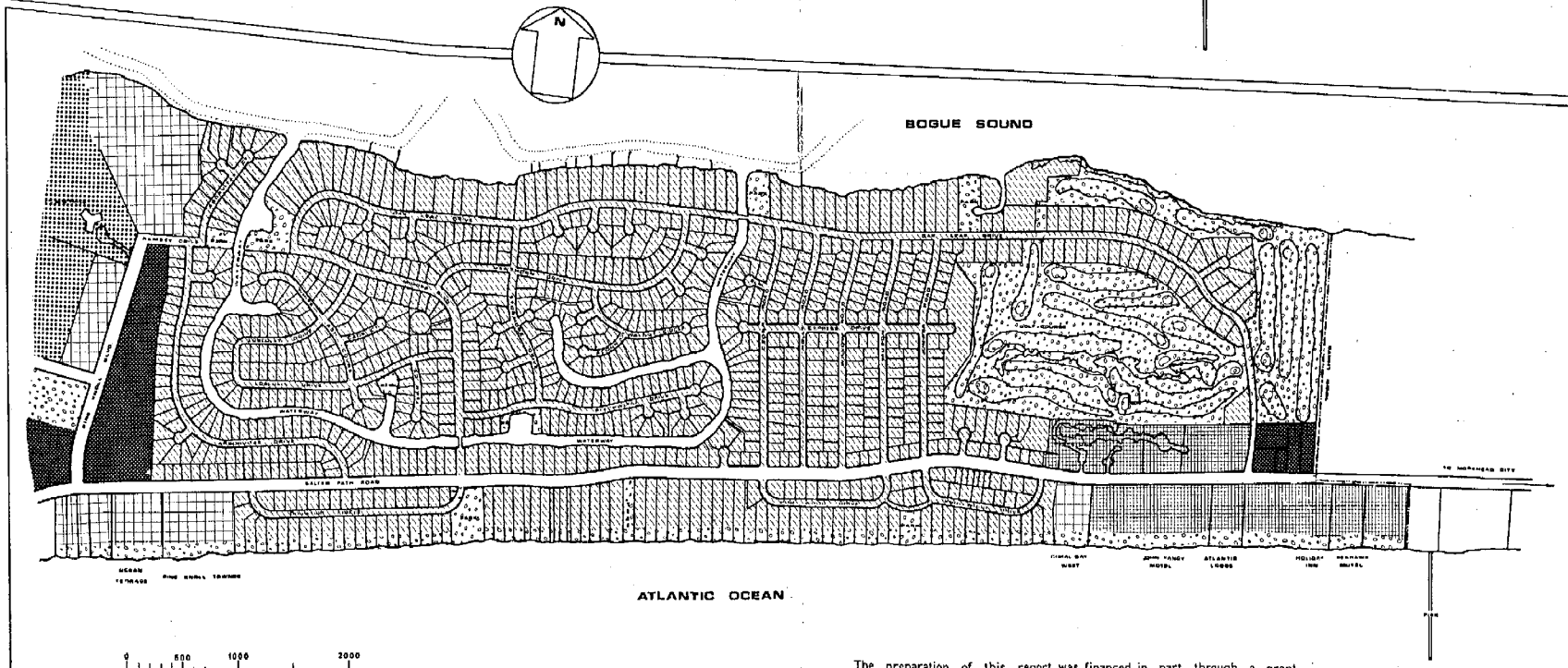
DEVELOPED

- SINGLE FAMILY DETACHED RESIDENTIAL; R-1
- MULTIFAMILY RESIDENTIAL, C-2
- COMMERCIAL, C-1
- COMMERCIAL, C-3, C-4; C-5
- MUNICIPAL SERVICES
- INSTITUTIONAL

CONSERVATION

- OPEN SPACE & RECREATION





0 500 1000 2000
SCALE IN FEET

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

Motel construction did not occur during this period. Approval has been granted to the site plan of a commercial center which is expected to be completed in 1987. Although land cost and consumer demand point to a continuation of multifamily construction during the next five years, the amount of available land zoned for this use is fast becoming exhausted.

All land for single-family home construction is already platted and will be increasingly the focus of construction during the coming years. Very little additional commercial development can be expected after the construction of the proposed village shopping center. Moreover, motel expansion is restricted to only two sites totalling four acres at the increased permitted density of 22 units per acre.

3. Land Compatibility Problems

There are very few circumstances which might be considered to be land use compatibility problems within the Town. The Town was planned in considerable detail prior to and during the early years of its incorporation and does not have the problems of industrial and strip commercial developments which may create problems in other communities.

However, two specific land compatibility problems exist. First, both the fishing pier and the Ramada Inn were constructed prior to incorporation of the Town and now represent pre-existing uses which would not now be allowed under the Town ordinances. Second, there are existing residential areas located in low lying areas which are subject to periodic flooding.

4. Areas Likely to Experience Changes in Predominant Land Use

As previously stated, the land within the corporate limits of Pine Knoll Shores is currently developed, being developed, or zoned for future development.

An oceanfront tract of approximately four acres lies on the easternmost edge of the Town limits and is zoned for motel use or moderate density condominiums. For population projection at build-out, this property and all other undeveloped tracts were assigned the highest density use allowable although a lower density use might ultimately be adopted.

5. Current Land Use Regulations

a. Zoning Ordinance

The zoning ordinance controls land use, development density and development design standards for all property within the Town. Several changes in the zoning ordinances have taken place since 1981 and are outlined in the earlier section: Developments within the Past Five Years - Zoning and Annexation. The following zoning districts are described in zoning ordinance:

Single-family residential: R-1, R-2, R-3, and R-4
Multifamily residential: C-1 and C-2
Commercial: C-3, C-4, and C-5
Institutional:
Municipal Services: C-6
Recreational: Rec-1, Rec-2 and Rec-3

See appendix for a complete list of Town plans, policies and regulations.

b. Town Subdivision Regulations

The subdivision regulations adopted in 1980 and revised in 1981 and 1982 are used in concert with the zoning ordinance to ensure that proper development standards are followed. The subdivision regulations detail specific site development requirements which are applied to buildings, roadways, utilities and site amenities and are reviewed for consistency by the Town Planning Board and building inspector during the plan approval process and during the construction period. The subdivision regulations have been revised for specific issues by approval of the Board of Commissioners, most of which are technical and have not caused significant changes in land use or Town policy concerning land use.

c. Enforcement Provisions

All planning and development issues are reviewed by the Town Planning Board and then passed on with recommendations to the Town Board of Commissioners for final action. A full-time building inspector serves as in-house staff, field inspector during construction, permit officer and permit enforcement officer.

d. State and Federal Regulations

The State guides land use in the coastal area through the implementation of the Coastal Area Management act which has set forth standards for development in areas designated as Areas of Environmental Concern. Development projects that require federal permits or authorization are also reviewed for consistency by the NCDCM. The U.S. Army Corps of Engineers govern development through standards set forth in federal regulations and monitored through a permit review program.

B. CONSTRAINTS: LAND SUITABILITY

The major constraints for future development within the Town have been identified and mapped during the past land use plan updates. Current zoning and land use ordinances take these constraints into consideration in limiting future growth.

1. Hazard Areas

There are no man-made hazards such as airports, industrial storage tanks, or power plants within or immediately adjacent to the Town. There are, of course, a number of natural hazard areas which are characteristic of any beach community. The entire oceanfront of five miles is designated as Ocean Hazard AEC and is a major constraint to development. The Town ordinances for many years have generally been more restrictive than the CAMA oceanfront setback for detached residential structures and have maintained a minimum 100 foot setback from the toe of the primary dune for all structures. Most of the beachfront areas which are developed do not lie within the flood insurance hazard zones.

The second major natural hazard area is the low lying area adjacent to Bogue Sound. Much of this area is susceptible to storm flooding. Only a limited amount of soundfront property within the Town remains undeveloped.

Two specific military and industrial land uses in the surrounding area represent a slight but potential hazard to the Town. These potential hazards are the possibility of aircraft crashes from the Bogue Marine Airstrip on the mainland and from the possibility of an industrial accident from the port at Morehead City which might require evacuation of town residents.

2. Areas With Soil Limitations

The Town is generally underlaid with the Newhan-Corolla soils which are characteristic of the dune and swale topography of the island. These soils do not generally pose serious constraints to land development although the Corolla soils found in the lower lying natural swales have a shallow water table and are prone to flooding during heavy rains such as may accompany a hurricane or a severe northeast storm. In recent years, some flooding of low lying residential lots has occured in these areas. There are no undeveloped tracts within the Town in which the soils pose a major limitation to residential or commercial development. See the Hazard Map (map 3) showing potential flood hazard zones.

3. Fragile Areas

Natural areas within the Town which are considered fragile and could be damaged or destroyed by inappropriate or poorly planned development have been mapped and are well documented in the Federal Emergency Management Agency (FEMA) flood maps, Corps of Engineers studies, and are defined by N.C. Division of Coastal Management (NCDCM) standards. There are no known sites of special archaeological significance in the Town. The key coastal wetlands areas of concern are the primary dunes along the beach front, the coastal marshes which border the estuarine shoreline, estuarine waters, the wooded freshwater swamps of the interior, maritime forests, and the public trust waters which include shellfish waters.

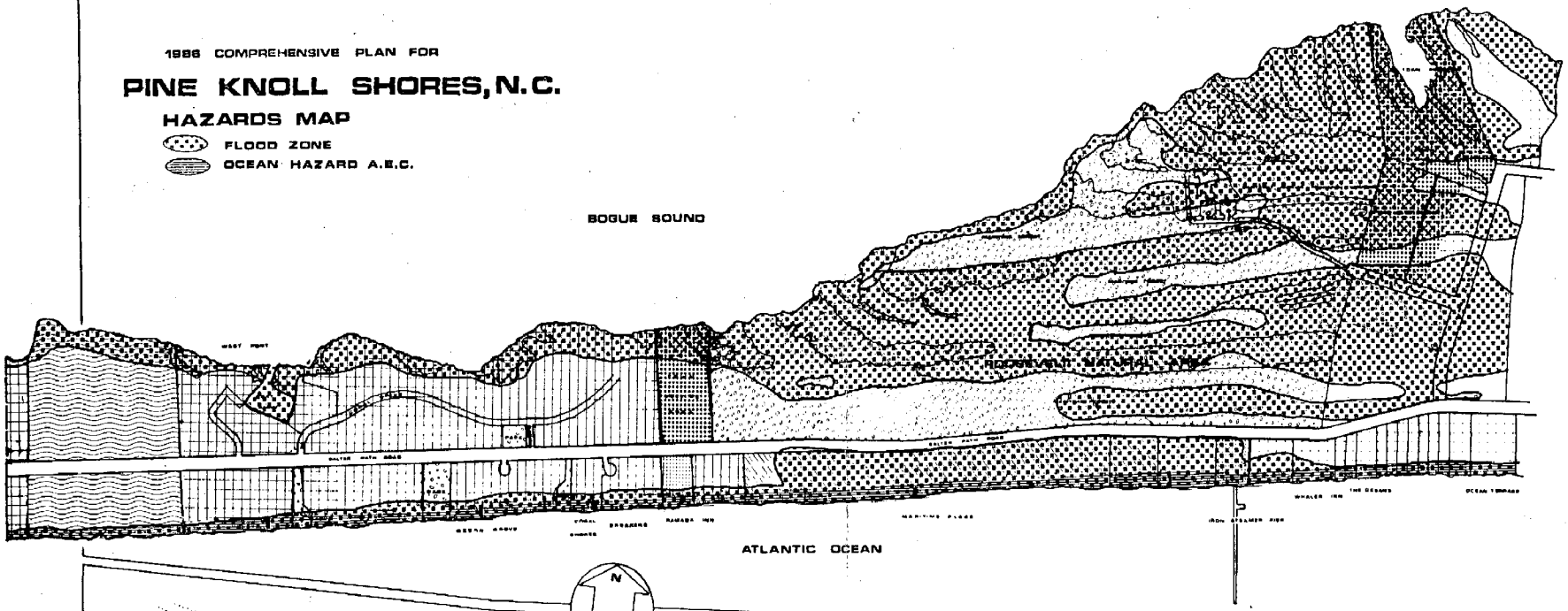
1986 COMPREHENSIVE PLAN FOR

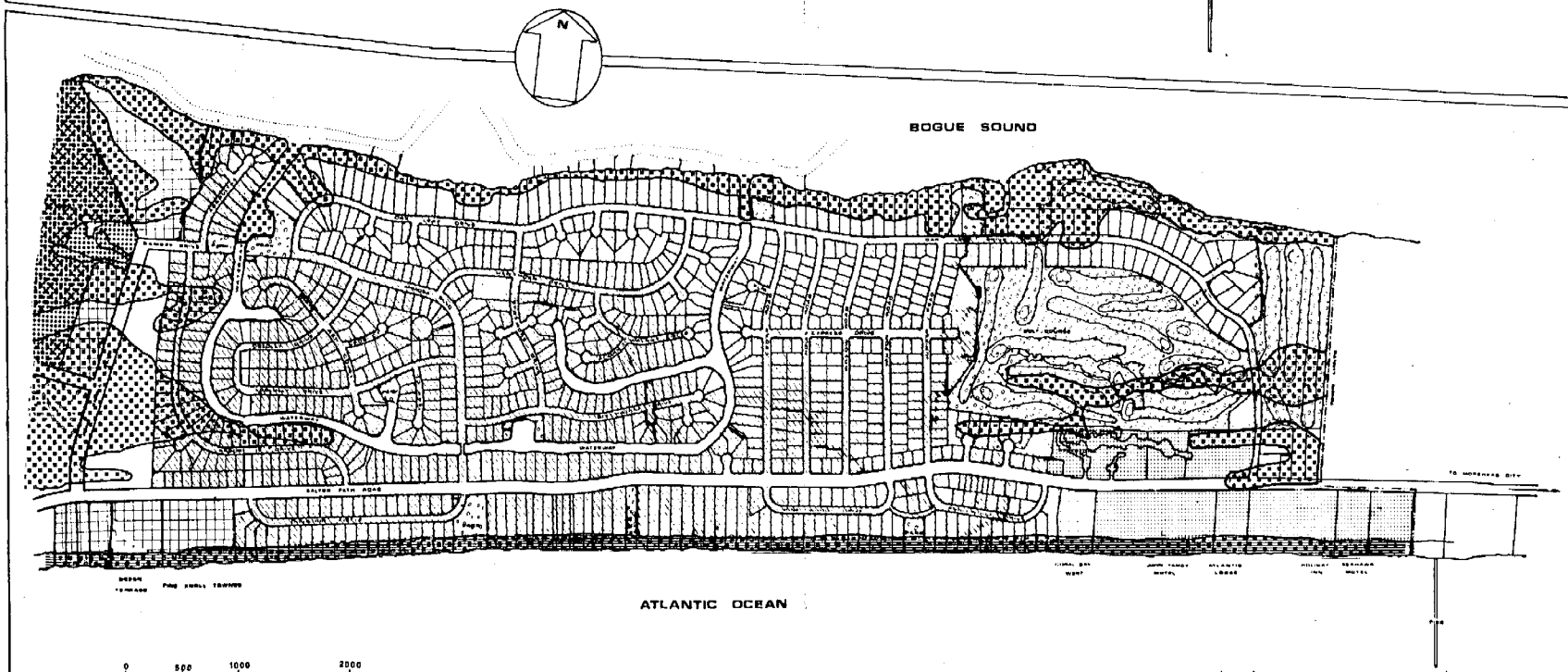
PINE KNOLL SHORES, N.C.

HAZARDS MAP

FLOOD ZONE

OCEAN HAZARD A.E.C.





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

Local and state regulations designed to protect the primary dunes and estuarine marshes have been enforced and have left the Town with a relatively intact natural primary dune system and fringe marsh. Early development of the Town, prior to strict state and federal laws protecting interior wetlands, replaced interior wooded swamp areas with canals and residential development. At this point the only major remnant of the wooded swamps left intact is located within the state-owned Theodore Roosevelt Natural Area. The vast majority of soundfront public trust shellfish waters along the Town's shoreline are currently open to the taking of shellfish. The interior canals located in the single family residential areas have been intermittently opened and closed to the taking of shellfish. There is no evidence at this time to suggest that development patterns within the Town will lead to the closure of additional shellfish areas.

4. Areas With Resource Potential

The beach area and marshes represent areas of significant resource potential particularly in terms of commercial fisheries habitat and recreational uses.

Other than the beachfront and coastal marsh areas which are protected from encroachment and damage from development, there is only one other area within the Town which is large enough and of enough biological significance to be considered an area with unique resource potential, and that is the Theodore Roosevelt Natural Area Area which covers 300 plus acres which was donated to the State of North Carolina by the Roosevelt heirs with the condition that the land remain "forever wild".

5. Areas of Environmental Concern

Through the Coastal Area Management Act (CAMA), the Coastal Resources Commission (CRC) has designated four categories of Areas of Environmental Concern (AEC's): the Estuarine Waters which includes coastal wetlands, the Ocean Hazard Area, Public Water Supplies and Natural and Cultural Resource Areas. The two AEC's which are most prevalent in the Town are the Estuarine Shoreline and the Ocean Hazard Area. See the Policy sections for Areas of Enviromental Concern for further discussion.(page 24 thru 28)

The CRC gives high priority to the protection and coordinated management of these AEC's to safeguard and perpetuate their biological, economic, recreational and aesthetic values. A development permit system is in place with standards which are designed to assure compatible development with the natural environment and to reduce the likelihood of damage to public resources and private property. These standards are used to supplement the local standards embodied in the Town's zoning and subdivision ordinances.

The U.S. Army Corps of Engineers also governs additional resource areas which in some cases overlap the CRC areas of environmental concern. These resource areas include "404 Wetlands" and all

"Section 10 Waters".

C. CONSTRAINTS: CAPACITY OF COMMUNITY FACILITIES

The development of community facilities has generally exceeded the current needs of the Town. There are no current critical facility or service shortages and plans have been made to accommodate anticipated future population growth needs.

The central water system in the Town is owned and operated by a private utility, Carolina Water Service. All residential and commercial development, other than a few homes which are on individual wells, are served by the central water system. Two new wells, producing 925 gpm, have been added to the two existing wells.

Current water usage averages 833,000 gallons per day during the summer months and 233,000 gallons per day during the off-peak winter months. Pump capacity is 2.5 million gallons per day. Estimates indicate that an additional well may be needed in five to six years and an additional storage tank may be needed in fifteen years.* All wells draw from the Castle Hayne aquifer. The capacity of the four wells of the Carolina Water Service is over two million gallons per day which is more than adequate to supply the needs of the Town's projected peak population over the next ten years. Additional wells can be added to increase capacity as the need arises. Water storage capacity is now at 400,000 gallons with the recent addition of a second elevated storage tank with a 250,000 gallon capacity which was constructed during the past year.

Single-family lots within the Town are served by individual septic systems. All undeveloped lots are capable of supporting individual septic systems. At this time, all multifamily developments within the Town have plans for additional sewage capacity to accommodate each project's unit build-out. Other than individual package treatment systems for condominium, motel and commercial developments, there is no overall central sewage system for the Town. The western end of the Town is serviced by a private community system with a planned capacity of 240,000 gpd and represents the largest single sewage system in the Town.

Refuse collection and disposal through contract with a private firm is satisfactory and adequate land fill space is provided in the central county landfill.

The Town's needs for fire, rescue, and police protection are continually assessed and additions in personnel and equipment are provided as needs dictate.

*Figures provided by Carolina Water Service.

V. POLICY STATEMENTS

A. IMPLEMENTATION OF 1981 LAND USE PLAN POLICIES

The 1981 Pine Knoll Shores Land Use Plan outlined a series of specific goals and policies formulated to direct the growth of the community during the five year planning period which ended in 1986. The following is a summary of the 1981 policies, a brief assessment of their effectiveness and an analysis of the implementation actions taken by the Town during the past five years.

1. Areas of Environmental Concern

a. Ocean Hazard Area:

As provided in the zoning ordinance, no structure may be erected within 100 feet of the toe of the frontal dune other than raised pedestrian walkways and platform overlooks. No vehicular accesses to the beach are permitted.

b. Bogue Sound and Inland Canals:

As provided in the Residential Property Zones ordinances, no single-family home may be erected within 100 feet of mean high water on Bogue Sound nor within 30 feet of any interior waterway. In the Commercial Residential Zone 2 the set back from Bogue Sound of allowable single-family homes is governed by CAMA regulations.

c. Coastal Wetlands:

Coastal wetlands are to be kept in their natural state, unless excepted by the Coastal Resources Commission by special permit.

d. Estuarine and Public Trust Waters:

As provided in the zoning ordinance, the only construction permitted in these areas is for bulkheading to prevent erosion and private boat docks of limited size.

e. Areas of Conservation:

Conservation areas include the 309 acre Roosevelt State Park and 10.6 adjacent acres and they will be kept in their natural state except for the 25 acres set aside for the North Carolina Aquarium at Pine Knoll Shores Center.

f. Constraints to Development:

In recognition of the unique and fragile nature of the Town's area and related potential problems, ordinances have been adopted which generally:

1) limit the ultimate number of residential units to about

2,500 units in a town of about 1,500 acres;

2) limit the ultimate number of motel units to about 731 rooms;

3) require that at least 35% of all developed land be kept in a natural state, with more in the single-family residential zones;

4) limit the height of buildings to 35 feet in residential zones and 50 feet in commercial and multifamily unit zones;

5) specify restrictions on construction in flood zones.

2. Resource Production and Management

The Town has no natural resources for development other than its land area, which mainly is designated for residential living. The zoning ordinance restricts business development to motels, a fishing pier (predating the Town), and a limited area set aside for future retail, service and professional activity. In so far as it is feasible, this retail development will be directed towards serving the needs and desires of the Town's residents.

Vehicles are not permitted to operate in dune, maritime forest or conservation areas. There are no public vehicular accessways to the ocean beach within the Town. The Town endorses and enforces the Bogue Banks uniform ordinance regulating the use of vehicles on the beach.

3. Economic and Community Development

a. Types of Development to be Encouraged

The Town has been and will continue to be developed primarily as a residential community with a few motels and one fishing pier, and a limited area has been set aside for future retail, office, service, and institutional facilities. Density in the multifamily residential zones has now been reduced from 10 to 8 units per acre. In addition, there are about 1,138 lots in the town that are limited to single-family residences. Present business zones are believed to be excessive, and steps are being taken to rezone the excess areas to a residential classification.

b. Types and Location of Industries Desired

While the Town is mainly residential, tourism is important to the business establishments in town. In the zone in which motels are permitted, there are only two pieces of property left that might be suitable for a small motel. However, the permitted density has been increased from eight sleeping units per acre to 22. Although the present density of existing motels generally exceeds the previously allowed eight per acre limitation by reason of grandfather clauses, there nevertheless

is room for further expansion as the result of the increase in permitted density. No additional fishing piers will be allowed. Retail, professional, and service establishments will be permitted in the business zone, subject to restrictions set forth in the zoning ordinance.

c. Future Land Uses

The Town is completely zoned to define the manner in which its land is to be used. Therefore, in the absence of extenuating circumstances or unforeseen developments, the land will be used as indicated in the attached land use map except that some commercial areas might be rezoned to residential.

4. Commitment to Providing Services

As the Town grows toward its ultimate peak population of 10,513, it will expand its services to meet the expanded needs of its residents. This continues the 1981 policy for this issue.

a. Police, Fire and Rescue Services

Police, fire, and rescue services will continue to expand as the need arises.

b. Water Services

The Town will continue to work with Carolina Water Service and the Public Utilities Commission to assure that facilities and service meet the Town's growing needs.

c. Sewage Disposal

The Town will continue to work with its present sewage disposal methods until or unless such methods are shown to be inadequate, at which time appropriate remedial actions will be promptly initiated. At present, the Town has no intention of participating in a central or regional sewage system.

d. Garbage and Trash Disposal

Refuse collection and disposal through contract with a private firm, with the cost paid for out of tax revenues, will be continued.

e. Other Utility Services

The Town will continue to rely on The Carteret-Craven Electric Membership Corporation and the Carolina Telephone and Telegraph Company to provide expanded facilities and services to meet its growing needs.

f. Recreation Facilities

The Town will continue to rely on developers and homeowner

associations to provide added facilities to satisfy the desires of a growing population.

g. Schools and Education

As part of the Carteret County School System, the Town has no obligation to provide any school facilities or services. Residents of the Town pay taxes to the county for such services.

h. Roads and Bridges

The Town will maintain all dedicated roads and bridges in the community, other than State Highway 58. It will also oversee the maintenance of private roads to assure they continue to meet state standards. The Town continues to oppose a third island bridge terminating within the its limits, and also opposes widening of State Highway 58 within town limits.

i. Other Capital Improvements

The Town has no plans for significant capital improvements at the present time. However, it has accumulated substantial reserves to cover the cost of future improvements and major maintenance projects.

j. Public Transportation

The Town does not plan to establish a public transportation system in the foreseeable future. However, it will participate in any study by the County or the other communities on Bogue Banks of the need for bus service to the mainland.

k. Beach Erosion

Although there has been some beach erosion during the past five years, no buildings have been endangered because of the Town's 100 foot setback requirement. At present, the Town is treating tidal water erosion as a problem of the individual property owner, and it has no intention of subsidizing restoration efforts. However, any loss of beach and dunes is in fact of vital interest to the Town at large, and it will take a strong stewardship position in overseeing all remedial steps taken in the event of erosion.

l. Energy Facility and Development

The Town by ordinance prohibits the erection of energy-producing facilities within its limits. It depends on the Carteret-Craven Electrical Membership Corporation to supply the Town's energy needs.

m. Beach and Waterfront Access

Although there are numerous beach access areas for the residents, property owners and their guests, all owned and

maintained by their respective property owners' associations, the Town does not provide any access to the beach for the general public, and it has no plans to do so.

n. Future Zoning Changes

The Town's zoning ordinances are well established, and developers are proceeding on the basis of such ordinances. Any future changes will be relatively minor in nature and will tend to reduce the area of business zones and enlarge residential zones. In no event will the permissible density in residential or motel zones be increased.

o. Public Participation

Public hearings have been held during the development of this Land Use Plan update. Furthermore, since implementation is accomplished through enactment of widely publicized town ordinances, additional public hearings will occur. The Town has always enjoyed a high degree of public participation with respect to its administration, and is expected to continue to do so.

B. POLICY STATEMENTS

The most important part of any land use plan prepared under the Coastal Area Management Act is the formulation of specific policies regarding growth, development and management objectives. The plan must strike a delicate balance between the desires and objectives of the citizens, the local government of Pine Knoll Shores, and the CAMA Program overseen by the Coastal Resources Commission. By statute, all land use regulations and governing policies must be consistent with performance standards set forth by the CRC for all Areas of Environmental Concern (See GS 113A-111). Local, state, and federal regulations and programs will be consistent with good management practices, preservation of the natural environment, and a high quality of life for residents of Pine Knoll Shores. Our overriding objective is to create and maintain a quiet residential community in the natural setting of the existing maritime forest of the barrier island.

This Land Use Plan Update has been prepared, and is approved, as a planning tool to be used by the current and future Commissioners of the Town of Pine Knoll Shores in making land use decisions. This Land Use Plan Update is not intended to preempt zoning decisions by the existing or future Commissioners of the Town of Pine Knoll Shores. Changes in zoning, if compatible with the general policy of this Land Use Plan, are appropriate, and can be made in the future by the governing body of the Town of Pine Knoll Shores. Boundaries or particular uses may be expanded or contracted, and specific numerical criteria applicable to zones may be altered, if such changes are compatible with, on an overall community basis, the overriding objective of the Town to create and maintain a quiet residential community in the natural setting of the existing maritime forest of the barrier island.

1. RESOURCE PROTECTION

a. AREAS OF ENVIRONMENTAL CONCERN: ESTUARINE SYSTEM*

Pine Knoll Shores recognizes the primary concern of the Coastal Resources Commission in terms of protecting resources and issuing permits for the areas of environmental concern (AEC's). The Estuarine System is a highly productive biological habitat and also supports human uses such as boating, swimming, hunting and fishing. The Town also shares this concern for the protection and management of these environmentally sensitive lands, vegetation and waters. The existing sound front setback requirement is greater than state requirements for single family structures. Pine Knoll Shore's current town regulations regarding AEC's are consistent with state and federal regulations. By statute, all local land use regulations and governing policies must be consistent with performance standards set forth by the CRC for all Areas of Environmental Concern (See GS 113A-111).

(1) Coastal Wetlands*

Coastal wetlands provide vital habitat for wildlife and waterfowl. They protect water quality by trapping sediments and pollutants. They reduce flooding and hinder shoreline erosion. They produce nutrients and decayed plant material that feed marine life. Shrimp, oysters, crabs, flounder, menhaden, and other fishes depend on coastal wetlands as nursery areas, protective shelters, and sources of food. Man harvests various products of the wetlands when he fishes, hunts, and gathers shellfish from the sounds and the ocean.

The first priority of land uses in and adjacent to coastal wetlands should be the allowance of only those uses which promote conservation of these sensitive areas which will prevent the imposition of irreversible damage to the wetlands. The Town through its zoning and subdivision ordinances provides standards to minimize development related impact on these valuable resources.

(2) Estuarine Waters And Estuarine Shoreline*

Estuarine waters transport nutrients and plankton, control salinity, and cleanse the estuarine system of pollutants. They support a multitude of productive habitats, such as mud flats, submerged vegetation beds, shellfish beds, and spawning areas. The estuarine waters also support boating, swimming, hunting , fishing, and other human activities.

*See Gs 113A-111 Subchapter 7H 15NCAC for specific use and performance standards for all Areas of Environmental Concern.

Pine Knoll Shores recognizes that certain actions occurring within the estuarine shoreline, which is defined as the area extending 75 feet landward of the mean high water line of estuarine waters, could possibly have a substantial adverse effect upon the quality of these waters.

Pine Knoll Shores will permit only those uses in which:

(a) A substantial chance of pollution from the development will not occur.

(b) Development does not have any further adverse impact on estuarine resources.

(c) Development does not further interfere with existing public rights or access to, or use of, navigable waters or public resources.

(3) Public Trust Areas*

(a) Pine Knoll Shores will continue to promote the conservation and management of CAMA defined public trust areas which cover all lands underneath waterways and the minerals and biological resources that these submerged lands contain. Appropriate uses include those which protect public rights for navigation and recreation. Projects which would directly or indirectly block or impair existing navigation channels, increase shoreline erosion, deposit soils below mean high tide, cause adverse water circulation patterns, violate water quality standards or cause degradation of shellfish waters shall not be allowed.

POLICY STATEMENT: Estuarine System

Pine Knoll Shores continues to support the protection and coordinated management of the estuarine system. The Town recognizes that certain actions within the estuarine shoreline could possibly have a substantial effect upon the quality of these waters. Only water dependent uses will be permitted in coastal wetlands, estuarine water and public trust areas. The Town will strive to insure that any development occurring within the system is compatible with natural characteristics, so as to minimize significant loss of private property and public resources.

POLICY IMPLEMENTATION: Estuarine System

Pine Knoll Shores believes that the existing development permit systems administered by state and federal agencies combined with enforcement of the Town's zoning ordinance represent an adequate system to protect the areas of environmental concern.

*See GS 113A-111 Subchapter 7H 15NCAC for specific use and performance standards for all Areas of Environmental Concern

b. AREAS OF ENVIRONMENTAL CONCERN: OCEAN HAZARD AREA*

The areas along the Atlantic Ocean shoreline have a vulnerability to erosion or other adverse effects of wind and water.

Due to the Pine Knoll Shores setback requirements, at present there are no immediately threatened areas. Some beach residents and developers have used dune restoration to recover some beachfront areas subjected to erosion.

It is important to consider policies which are aimed both at protecting the land forms (dunes and beach) and any structures which are allowed to be constructed in these areas.

The Town zoning ordinance restricts any construction within the Ocean Hazard Area or any alteration of the area controlled by setback requirements.

POLICY STATEMENT: Ocean Hazard Area

All land uses in the Ocean Hazard category shall be consistent with the Pine Knoll Shores zoning ordinances which allow commercial and residential development set back 100 feet from the oceanside toe of the frontal dune or within 100 feet of the mean highwater mark of the Atlantic Ocean. The town is committed to keep the minimum building set back consistent with CAMA setback standards.

When existing dunes are restored through private efforts, this shall be accomplished in a manner which minimizes damage to existing vegetation. Any areas filled shall be replanted immediately for stabilization.

The entire town as well as individual property owners benefit from these dunes. Therefore, the Town has a strong interest in the protection and/or increase of the frontal dunes. The Town on behalf of the State and its citizens exercises supervision and law enforcement of the land and ocean area which touches the dune. It will continue to participate in measures to further protect the frontal dunes system. The Town does not, however, plan to become a financial partner in any major beach restoration program which may be proposed for the beach front areas, except in situations that affect the Town as a whole.

POLICY IMPLEMENTATION: Ocean Hazard Areas

Pine Knoll Shores will continue to enforce its local zoning regulations cited above which support the CAMA major and minor permitting system and the Corps of Engineers 404 dredge and fill permit program.

*See GS 113A-111 Subchapter 7H 15 NCAC for specific use and performance standards for all Areas of Environmental Concern.

c. DEVELOPMENT IN AREAS WITH CONSTRAINTS TO DEVELOPMENT

There are areas within the Town limits, including portions of the golf course and adjacent lots, which are subject to flooding during hurricanes and other storms. A study is being made to alleviate flooding during unusually heavy rainfall and plans will be formulated to correct the problem after the study is completed. Areas with constraints to development are delineated on the Hazards Map.

POLICY STATEMENT: Development In Areas With Constraints

Pine Knoll Shores ordinances are very strict with regard to future growth and building. It is the Town's objective to see that future growth and building proceeds in a manner which will not jeopardize the fragile ecological environment that comprises this barrier island. The Town will continue to control the type and extent of development which takes place in areas with natural constraints.

POLICY IMPLEMENTATION: Development In Areas With Constraints

(1) Enforcement of Town Ordinances

Under existing local zoning ordinances all building plans and site development plans must be reviewed by the following:

- Community Appearance Commission
- Building Inspector

Under existing local subdivision ordinances all subdivision plans must be approved by the Planning Board and by the Board of Commissioners.

(2) Hurricane and Flood Evacuation Needs and Plan

A disaster plan has been established to handle not only evacuation but also to control post disaster recovery. (See page 35 thru page 40)

(3) Protection of Potable Water Supplies

The Castle Hayne aquifer is the Town's source of potable water. Development within town poses no direct threat to the quality or quantity of the water supply.

(4) Use of Package Treatment Plants

In Pine Knoll Shores, single-family homes utilize on site septic tanks, whereas condominiums and motels utilize package treatment plants or septic systems. Present plans call for a continuation of this approach with periodic review with public health agencies to assure that the health and welfare of citizens is not threatened by construction or operation of treatment plants. The Town recognizes the problem of poorly maintained package plants and sees the need for the County

Health Department to maintain adequate manpower for plant inspections.

(5) Storm water runoff

At present, several areas in town are flood prone and are under study for remedial engineering. Likewise, ordinances have been considered to limit impervious surfaces so that as much natural absorption as possible of stormwater runoff can be realized.

Zoning and subdivision regulations will be evaluated as planning tools to reduce stormwater impact on shellfish waters. The Town has requested assistance from the State to correct storm water runoff from Highway 58 (Salter Path Road) into the town canal and needs full support of the Coastal Resources Commission to effect this needed change.

(6) Marina And Floating Home Development

Pine Knoll Shores follows CAMA principles concerning marina and floating home developments. There are no commercial marinas permitted by zoning ordinances. Overboard discharge of waste and overnight occupancy of boats within town waters are prohibited.

(7) Industrial Impacts on Fragile Areas

There are no industrial facilities or major energy producing facilities in Pine Knoll Shores and none are permitted by zoning ordinance.

(8) Development Near The Estuarine Shoreline

Development standards in the Pine Knoll Shores ordinances, which in some cases are more restrictive than CAMA, will continue to control future development near the estuarine shoreline to minimize loss of private property and public resources. In order to promote the quality of estuarine waters, the Town will permit only those uses which are compatible with both the estuarine shoreline and which protect the value of the estuarine system. The Town, through its subdivision ordinance, imposes a minimum single family residential building setback of 100 feet along the estuarine shoreline and a similar setback of 30 feet along canals.

2. RESOURCE PRODUCTION AND MANAGEMENT

The Town of Pine Knoll Shores does not now nor will it ever have dense commercial development, agriculturally productive lands, forest lands for timbering purposes, or mineral production areas because of its location on a barrier island, its size, the value of land, and the character of the community.

POLICY STATEMENT: Resource Production And Management

Pine Knoll Shores is a residential-recreational community. As such, it is the Town's objective to maintain a stewardship role toward the beaches, estuarine shorelines, and canals.

The Town will act to preserve and manage prime nursery areas, existing vegetation and maritime forests and will continue to protect the shorelines, improve water quality in the Sound side, and prevent fouling of the fresh water supply.

POLICY IMPLEMENTATION: Resource Production And Management

Pine Knoll Shores will continue to enforce all local regulations pertaining to ecological preservation and management, and will support state and federal initiatives relative to maintaining and enhancing water quality. The Town will also continue to review and strengthen ordinances as required to assure the implementation of this policy.

a. Commercial And Recreational Fisheries

There is one ocean fishing pier within the Town, which was in existence before the community was incorporated. Recreational fishing from the pier as well as along the ocean beach and in the waters of Bogue Sound adjacent to the Town is a frequent activity of both residents and visitors. A limited amount of commercial fishing from the ocean beach has been carried on for generations by commercial fishermen. However, this activity appears to be declining as more of the oceanfront property in Pine Knoll Shores is developed and the population using the beach for recreation increases.

b. Off-Road Vehicles

The Town continues to prohibit any non-commercial or non-emergency vehicular traffic on the beach area. Only duly licensed vehicles of commercial fishermen are permitted on the Atlantic Ocean beach area of Pine Knoll Shores, and only approved access routes and areas must be used in travelling onto and away from the beach. Such use will not take place during periods when young turtles are making their run for the ocean. Emergency vehicles are permitted at any time for emergency situations.

3. ECONOMIC AND COMMUNITY DEVELOPMENT

In general, future residential, commercial and institutional land development is limited because of land availability and zoning restrictions.

POLICY STATEMENT: Economic And Community Development

All of Pine Knoll Shores has been zoned, with the intent being to maintain a residential-recreational atmosphere throughout the Town. Density requirements restrict building intensity. Local ordinances spell out densities for various areas in order to allow orderly growth and assure a good quality of life for our citizens. The Town is committed to preservation, not to intensive development. Efforts will continue to convert existing commercial zones to single-family residential zones. The Town supports state and federal programs for community improvements including land planning, dredging, beach nourishment, emergency management and federal and state permitting programs regulating coastal development.

POLICY IMPLEMENTATION: Economic And Community Development

The Town will continue to encourage development that is conducive to a fine residential-recreational community, using the Land Use Plan as a guide.

a. Local Commitment To Providing Services To Development

Before any building permit is issued in Pine Knoll Shores, all required services must be available. Local ordinances establish requirements for any proposed development.

No participation in a regional sewage disposal plan is contemplated as septic systems should be adequate for areas zoned for single-family dwellings. Most of the western end of the Pine Knoll Shores area is served by a tertiary treatment plant of adequate capacity, and other moderate density residential projects are required to have their own tertiary treatment plants. Should present sewage disposal systems prove inadequate, corrective action will be taken, including requiring replacement of defective on-site systems, rezoning to a lower density, or a building moratorium if necessary.

Refuse collection through contract with a private collection firm, with the cost borne from the basic property tax, will be continued.

The Town will continue to rely upon Carolina Water Service, the Carteret-Craven Electric Membership Corporation and Carolina Telephone and Telegraph Company to expand utility facilities and services to meet the needs of the community as it continues to grow.

b. Redevelopment Of Existing Developed Areas

Because of the short history of the Town, most construction is still quite new. No immediate need for redevelopment can be foreseen during the upcoming planning period. A disaster recovery plan which specifies requirements for redevelopment after storms has been adopted.(See page 35 thru page 40)

c. Committment To State And Federal Programs

Pine Knoll Shores is receptive to state and federal programs which enhance or improve the Town's facilities for the benefit of its citizens and is committed to state and federal efforts to preserve the island environment. These programs, which the Town supports include land planning, dredging, beach nourishment, emergency management and federal and state permitting programs regulating coastal development.

d. Assistance To Canal Maintenance

At this time, canal maintenance within the Town is a function of established homeowners' associations without town financial assistance. However, the Town exercises oversight of the canal.

e. Tourism And Beach And Waterfront Access

Tourism in Pine Knoll Shores is accommodated by six motels and many condominium rental units. The Iron Steamer Pier also provides fishing and beach use facilities. Oceanfront development within town limits is almost complete, and since the Town owns no water front property, future public access to the area will remain much as it is. As a policy, the Town does not support the development of a public beach access facility within the Town limits. An ocean beach public access planned for west of Pine Knoll Shores in Indian Beach will adequately service the need for public beach access in this section of the island.

Three hundred acres of the Town's total land area is set aside in perpetuity for the people of North Carolina and is designated the Theodore Roosevelt Natural Area by the State. Many thousands of out of town visitors come to the Natural Area and the Marine Resources Center each year, thus making it one of the most visited recreational, educational areas in the State. In 1985 335,000 visitors came to the center and projections show 375,000 visitors will have been to the center in 1986. In late 1986, the name of the Marine Resources Center was changed to the North Carolina Aquarium Pine Knoll Shores. In addition, the Town owns 10.6 acres adjoining the Theodore Roosevelt Natural Area which is zoned for similar uses and purposes.

f. Types, Density And Location Of Development

A shopping center is now under development. Motel and condominium zones are controlled by local ordinances that restrict densities and business use. Single-family lots are also controlled by local ordinances to provide for the maintenance of natural growth areas and to protect the landscape and visual character of the Town.

4. CONTINUING PUBLIC PARTICIPATION

All landowners in Pine Knoll Shores received questionnaires concerning current issues in the 1986 Land Use Plan. The results were tabulated and studied carefully to help guide the decisions

made for the plan. A summary of the results are discussed in Section III of this report.(See pages 5 & 6 of this report)

Public Hearings are also held to provide additional input into the Land Use Plan process. All Town meetings are open to the public and public participation is encouraged.

POLICY STATEMENT: Continuing Public Participation

The Town will continue to encourage public participation in all aspects of town decision-making. All formal and informal avenues of soliciting public input on policy issues facing the Town will be maintained.

POLICY IMPLEMENTATION: Continuing Public Participation

Implementation of the Land Use Plan is largely through town zoning ordinances. Since pending action on these ordinances is widely publicized through the Town's newsletter, local newspaper and other media, and is preceded by public hearings, a continued high level of public participation is expected.

5. STORM HAZARD MITIGATION

In 1985, the Town adopted a Post-Disaster Recovery and Evacuation Plan which established the policies and procedures to reduce the risks associated with future hurricanes.(See pages 35 thru 40)

POLICY STATEMENTS: Storm Hazard Mitigation

Recognizing the potential impact that a major hurricane could have on the Town, Pine Knoll Shores has adopted a series of policies which will reduce the potential for hurricane related damage. All of the policies below have been established as part of the Post Disaster Recovery Plan and are included as part of this 1986 Land Use Plan Update.

a. Pine Knoll Shores will continue to enforce its subdivision and zoning ordinances which dictate responsible land use and development standards for high hazard zones within the Town.

b. Pine Knoll Shores will adhere to the standards set forth in CAMA and the FEMA regulations for land use and development standards in the Ocean Hazard AEC, Estuarine Shoreline AEC and the Flood Zones.

c. Pine Knoll Shores will continue to make accessible to its citizens through public notices, workshops and its hurricane preparedness plans the policies and procedures associated with mitigating the impact of hurricanes through public awareness.

d. The Town will consider the redesign and construction of stormdamaged facilities, public utilities and roadways and their replacement in terms of minimizing the likelihood of future storm related damage.

POLICY IMPLEMENTATION: Storm Hazard Mitigation

Pine Knoll Shores will continue to enforce its subdivision and zoning ordinances, the state building code, and support the state and federal programs and regulations which are designed to mitigate the potential deleterious effects of hurricanes and other major storms.

C. STORM MITIGATION, EVACUATION, AND POST-DISASTER RECOVERY PLANS

Like all coastal communities, the Town of Pine Knoll Shores is acutely aware of the hazards associated with coastal storms. The destructive forces of serious storms are particularly acute for communities which are located on barrier islands. Since the incorporation of the Town in 1973 there has been no major hurricane in the area comparable to the class five Hazel and Donna hurricanes which unleashed their destructive forces on the North Carolina coast in the fifties and early sixties. Very few of the current town residents have experienced storms of this magnitude and may be unaware of the extent of destruction associated with such storms.

This section of the 1986 Land Use Plan has been prepared to assist the Town in preparing management policies for major storms so that they may be better prepared for the major hurricane which may eventually occur in this area. In 1985, the Town adopted a Post-Disaster Recovery and Evacuation Plan which established the policies and procedures in an effort to reduce the risks associated with future hurricanes. These policies in combination with Storm Hazard Mitigation discussion are outlined in the following sections.

1. STORM HAZARD MITIGATION

Hurricanes bring with them forces which cause damage and potential loss of life through high winds, flooding, wave action, and erosion. Storm hazard mitigation policies and procedures, properly conceived and implemented, can be critical in the reduction of the dangers and potential impact on the Town and its citizens. Mitigation is not only important to minimizing loss of property and life, but also for avoiding potential damages in the long run which might result from improper land planning and land management practices.

a. Hazard Mapping

The vulnerability of Pine Knoll Shores to the effects of high winds, flooding and storm surge, wave action and erosion can be summarized best by identifying the land areas within the Town which are naturally most susceptible to these forces. Two documents, The Federal Insurance Administration's Flood Hazard Boundary Map and the Pine Knoll Shores Land Use Plan, identify these areas which include flood hazard zones and Areas of Environmental Concern. These potential hazard areas are delineated on the Hazard Map and can be more specifically defined by reviewing the FEMA maps and the Carteret County SLOSH* maps. Table 7 summarizes the hazards which can be

expected to be associated with the four general zones found within the Town.

Table 7: Hurricane forces associated with Town environments

Environment	High Winds	Flooding	Wave Action	Erosion
Ocean Hazard, AEC	x	x	x	x
Estuar. Shore. AEC	x	x	x	x
V-Zone Flood	x	x	x	x
A-Zone Flood	x	x		
Outside Identified Hazard Areas	x			

The areas or environments listed above with their associated hazards effect will require land use policies which control the type and distribution of land uses designed to minimize the potential damage from future hurricanes. At this time, Pine Knoll Shores has implemented provisions in its local zoning and subdivision ordinances which are consistent with a policy of minimizing hurricane damage by controlling land use and assigning restrictive development standards to these high-risks environments.

b. Ocean Hazard AEC

This area includes ocean erodible and high hazard flood areas as defined by the Division of Coastal Management extending along the entire oceanfront beginning at the line of stable vegetation on the frontal primary dune and extending landward 100 feet. This area has been subject to accelerated erosion in recent years, in some locations eroding up to 30 feet in the past five years. The town recognizes the inherent danger in the oceanfront area and continues to require through its zoning ordinance a minimum 100 foot setback for all structures except raised pedestrian walkways and platform overlooks.

c. Estuarine Shoreline AEC

This hazard area extends only 75 feet landward of the mean high water line as defined by the Division of Coastal Management. However, the entire estuarine shoreline environment is subject to an extended hazard zone depending on low lying topography which is subject to varying degrees of flooding and wave action. The flood prone areas are delineated on the Hazard Maps. The Town's zoning and subdivision ordinances are consistent with development standards required for this area by DCM and the Federal Emergency Management Agency and in fact require a 100-foot single-family residence building setback from the shoreline.

*Sea and Lake Overland Surges from Hurricanes.
It should be noted that all areas lying within the town are

subject to some destructive aspect of hurricane damage through high winds, flooding, wave action or erosion. If even a limited portion or percentage of the Town were impacted from the effects of a major hurricane, the potential for damages in dollars can be significant. Implementation of mitigation of hurricane damage through proper land development policies and conformance with state building codes can be expected to result in a significant reduction in the extent and cost of loss of property and lives in the town when a major hurricane strikes.

2. HURRICANE EVACUATION PLAN*

Pine Knoll Shores has an active civil preparedness program in operation, which includes specific procedures to be followed during pre-hurricane conditions. The following section outlines these procedures as stated in the plan. (Because of problems in the evacuation for Hurricane Charlie in August 1986, the Carteret County Emergency Management Board is currently preparing a study, the findings of which will be implemented county-wide in 1987. The NCDCM will be involved in recovery operations.)

Condition 3: Hurricane Watch

a. The conditions will be announced over radio and television channels by the National Weather Service.
b. All individuals should prepare for evacuation.
c. Citizens should notify Town Hall (247-4353) of invalids or other persons requiring evacuation assistance. These persons will be evacuated immediately to prepared shelters by ambulance or other vehicles.

Condition 2: Hurricane Warning

a. The evacuation order will be issued over radio and television channels. Police will cruise town streets and issue evacuation order by loud speaker. The Pine Knoll Shores Civil Preparedness Organization will notify individual residences.
b. Citizens should turn off electricity for selected lines, ie. freezer, at main junction box, and water at valve.
c. All citizens and others should prepare to evacuate.
d. Persons who evacuate RVs and trailers should do so immediately. They will not be permitted to cross the bridges when winds are high, nor will they be permitted to reenter Bogue Banks during the crisis.

Condition 1: Evacuation

a. Evacuation will be announced simultaneously by all Bogue Banks communities 18 to 36 hours before anticipated landfall. Evacuation up to 75 miles or more inland is recommended.

*The Hurricane Evacuation Plan and the Post Disaster Recovery Plan are printed here as they appear in official Town records
b. Evacuation Routes:

(1) Persons located east of the Whaler Inn go east on NC 58 (Salter Path Road). Use Atlantic Beach Bridge.

(2) Persons located west of the Whaler Inn go west on NC 58, use Emerald Isle Bridge.

c. Evacuation Shelters:

(1) Atlantic Beach Bridge evacuees may use these shelters:
* West Carteret High School - 1/2 mile east of US 70 and Country Club Road.
* Senior Citizen's Center - Morehead City, 1600 Fisher Street, 2 blocks north of Arendell Street at 16th Street.
* Morehead Middle School - Morehead City, near Morehead Plaza, on Country Club Blvd. 1/4 mile north of Bridges Street.
* Morehead Elementary School - 1108 Bridges Street, 1 block north of Arendell Street, at 11th Street.
* Newport Schools, Havelock and points west.

(2) Emerald Isle Bridge evacuees may use these shelters:
* White Oak Elementary School - on NC 24, 1/2 mile east of traffic light at junction of NC 58 and NC 24.
* Use NC 58 and US 17 to Maysville, New Bern and Kinston.
* Do not attempt to use NC 24 to Morehead City or Swansboro. Low lying areas will probably be flooded.

1. Bridge Reentry Permits (Available at Town Hall)

a. Reentry permits will be required to pass through road blocks at either bridge to Bogue Banks. Town officials, police, fire, rescue, and civil preparedness organization personnel will be issued special permits for early reentry to inspect the Town for safe public reentry. Pine Knoll Shores residents and others who are authorized to return after the island has officially been declared safe for reentry may apply for permits at Town Hall. Others must remain on the mainland until conditions are stabilized and normal traffic can be resumed. Pine Knoll Shores permits are on blue cards (Each town has a different color). They are numbered serially and dated for control. During reentry, permits are to be placed on the dash in full view at all times. At check points on NC 58 at each end of Pine Knoll Shores, the permit will be marked to restrict persons to the areas they are authorized to enter. The Pine Knoll Shores police will check cards to intercept intruders.

b. Pine Knoll Shores residents will be issued reentry permits on the basis of one per family. Two permits may be issued in exceptional cases. Applicants must show proof of residency. Permits must be kept in a secure place. If lost, reentry will not be permitted before normal traffic is resumed.

c. Short term renters (vacationers) will not be issued permits.

Personal property tax records will be checked for proof of residency upon application.

d. Reentry permits will only be issued upon personal application at Town Hall during normal duty hours.

e. Non-resident owners of improved properties (not vacant lots) may be issued permits on the basis of one per owner. They may apply in writing showing the address of the property for a tax record check, and must enclose a self-addressed envelope, 6" x 9" or larger, bearing sufficient postage, or they may apply at the Town Hall in person.

f. Owners and managers of motels and other businesses may apply for reentry permits for themselves and employees who are required before normal traffic is resumed. The manager, or his representative, must submit a written application listing the number of reentry permits required and the position of each person who will receive one. These permits must be retained under the control of the manager for issue before the storm strikes.

2. Damage Assessment Procedures

a. To qualify for NC State and Federal disaster relief assistance, Pine Knoll Shores must report the extent of property damage sustained and the dollar value of loss to Carteret County within 24 hours of the event of disaster. County must submit a consolidated report to State within 48 hours.

b. The Pine Knoll Shores Civil Preparedness Organization as part of a county-wide program will conduct a damage assessment survey of all individual residences to determine the percentage of damage sustained by each house.

c. Condominium associations must report the percentage of damage sustained by each unit of the association's residences to Town Hall within 24 hours.

d. Motels and other businesses must report the extent of damage sustained as a percentage figure, and the estimated dollar value of loss within 24 hours of the disaster event.

e. Detailed damage assessments will be conducted by the Building Inspectors office at a later date, prior to the issue of permits for reconstruction.

3. Volunteer Civic Duty

Upon reentry to Pine Knoll Shores, all citizens are urged to go to the Town Hall to report on the safety of their family and to volunteer to help the Town recover from the disaster. There will be a need for more than 100 volunteers with all types of skills from clerical to labor. The safety report is needed for reply to queries from relatives and others outside the area.

3. POST-DISASTER RECOVERY PLAN

The purpose of this plan is to assist the Mayor and town officials to prepare for actions required for an orderly and expeditious restoration of vital services and living conditions in a post-disaster environment. The successful implementation of the plan is dependent upon the cooperation of the citizens of Pine Knoll Shores, who are expected to volunteer for public duty in the various tasks identified in the plan.

a. TIMING

This plan will go into effect when directed by official decree of the Mayor or his authorized representative. The decree will activate the Emergency Operations Center (EOC), the Disaster Information Center (DIC) and other operation groups identified in the plan.

b. IDENTIFICATION OF ACTIONS AND RESPONSIBILITIES

These actions are not necessarily listed in order of priority. The Mayor, or designated town official in charge of overall recovery, will identify the actions to be performed and their priority in the official decree that places this plan into effect.

(1) Personal Injuries and Public Health. The Commissioner of Rescue will insure that the Rescue Squad is manned and organized to coordinate effectively the activities of supplemental ambulance squads and medical evacuation helicopters in transporting casualties and sick persons to hospitals within or outside of Carteret County.

(2) Post-evacuation Reentry and Security of Public and Private Properties. The Commissioner of Police will coordinate the actions of Pine Knoll Shores law enforcement forces with citizen volunteers and with externally furnished resources to provide crime control. Unauthorized persons will be prevented from entering the town by manned blockades of its land and water approaches.

(3) Fire and Explosion Control. The Commissioner of Fire Department will coordinate the activities of the local fire fighting forces with externally provided resources to insure the control of fires and prevention of potential explosions. Hazardous conditions caused by a hurricane or other disaster will be closely monitored and actions coordinated with Utilities Liaison/Coordinator to be appointed by the Mayor.

(4) Federal and State Disaster Relief. The Director of Civil Preparedness, with the Building Inspector, will conduct and submit the Preliminary Damage Assessment Report and other reports required by the Carteret County Emergency Management Office, the North Carolina Office of Coastal Management, and the Federal Emergency Management Agency to

enable the Town of Pine Knoll Shores and its property owners to obtain financial relief.

(5) Public Utilities. The Utilities Liaison/Coordinator, appointed by the Mayor prior to the onset of the hurricane, will establish liaison with the public utilities companies (electric, telephone, and water) to provide two-way information between the utility companies and the Pine Knoll Shores Emergency Operations Center to ensure the expeditious restoration of service in accordance with mutually agreed-upon priorities.

(6) Highway and Street Accessibility. The Commissioner of Streets and Public Buildings will conduct damage surveys of public buildings and streets, establish priorities, arrange for contract labor, and coordinate the removal of debris and unsafe conditions from the town's streets and highways.

(7) Emergency and Transient Housing. The Director of Civil Preparedness will report on the availability of housing suitable for emergency use. The Emergency Housing Coordinator (EHC), to be designated by the Mayor, will establish priorities and assign quarters for Pine Knoll Shores residents displaced by the disaster. The Mayor will also find temporary shelter for the National Guard, the Red Cross and other disaster relief services, other authorized state and federal personnel, and authorized public information media personnel who may be on duty in town for extended periods.

(8) Reconstruction Control. The Building Inspector will issue building permits in accordance with federal, state and local governmental procedures and in accordance with priorities established by the Board of Commissioners for the reconstruction of municipal facilities, public housing, condominiums, commercial establishments and residences.

(9) Disaster Information Center. The Mayor will designate a Disaster Information Coordinator (DIC), who will establish the information center which will be the focal point for the gathering and dissemination of information. All town officials will submit periodic situation and progress reports to the center regarding developments in their areas of responsibility and they will be provided with information from others as it affects their operations. The Mayor will establish policies for the release of information to the residents of the town and to the public information media.

(10) Communications. This annex will be prepared when more information is available concerning communications personnel and equipment that may be provided by the Civil Air Patrol and nearby military establishments. It is anticipated that a within-town citizens band network

connecting the highway check points, waterfront observation points and the police may be organized using portable, battery-operated walkie-talkies.

(11) Volunteer Manning Requirements. The Town Clerk will organize the assignment of volunteers to perform the tasks identified in this plan.

VI. LAND CLASSIFICATION

The land classification system provides a framework to identify the future use of all lands and provides a means of assisting the implementation of the land use policies adopted by the Town. The land classification system allows for long range planning to provide for the protection of sensitive coastal environments, to recognize different intensities and types of land use, and to provide means by which varying levels of development intensity are accommodated or restricted by the appropriate level of community facilities and services. The land classification does not usurp the power or intent of the local zoning ordinance. It does provide a basis for the development and modification of local zoning ordinance.

The land classification system as defined in the Coastal Area Management Act divides land use into five general land use classifications. These classifications are generally described below in this brief excerpt from CAMA regulation (7B.0204) (c):

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

The intent of these classifications is to provide guidance to the Town in its preparation of land-use decisions and policy formulation. The map provides a representation of the relationships between different land uses and how local land-use policies migh best be formulated.

Two of five land use classifications are present within the Town limits: Developed, and Conservation, and are currently mapped on the land use plan.

A. DEVELOPED CLASSIFICATION

The purpose of the Developed classification is to provide for continued development and redevelopment of existing areas which have experienced urban growth. These areas are currently urban in character where minimal undeveloped land remains and have in place or will soon have municipal or public services. Pine Knoll Shores is largely developed at this time with existing development on most large tracts and municipal services in place to service projected development on the remaining tracts.

B. CONSERVATION CLASSIFICATION

The purpose of the Conservation classification is to provide for the effective long-term management and protection of significant, limited, or irreplaceable areas. Management is needed due to the natural, cultural, recreational, scenic, or natural productive values which are of local, regional, or state-wide concern. All CAMA areas of environmental concern which lie within the Town are currently mapped in the Conservation classification, including public trust waters, estuarine waters, coastal wetlands, wooded swamps and ocean hazard areas. All private and public recreation areas and parks come under this classification as does the largest undeveloped tract in the town, The Theodore Roosevelt Natural Area. The Town has recently acquired a 10.6-acre parcel adjacent to the Natural Area which has been added to the Conservation classification category within the Town.

VII. RELATIONSHIP OF POLICIES AND LAND CLASSIFICATION

To insure effective and consistent planning, the land use policies adopted by the Town must relate directly to the Land Classification system as defined by CAMA and be consistent with the Land Classification Map. Land use allowed under the Town zoning ordinance must comply with the general intent of the land uses as described in the land classification system.

A. DEVELOPED CLASSIFICATION

Pine Knoll Shores is a community which has been nearly completely developed. A few undeveloped tracts of land remain in the Town which are zoned for residential or commercial use. The areas within the Town already developed for residential or commercial uses and the undeveloped tracts zoned for future development fall within the Developed class as defined by the CAMA land classification system. The Developed class was specifically designed to accommodate more intensive land uses, including residential, commercial, community facilities and transportation uses. Areas in the Developed Classification are characterized by the availability of basic services such as water, sewer, and community support services, or such services are expected to be made available to these areas during the next five years. These uses are consistent with the zoning classifications assigned to these areas by the Town.

B. CONSERVATION CLASSIFICATION

The Conservation classification is applied to areas that because of their unique, productive, limited, cultural or natural features should either not be developed at all or, if developed done so in an extremely limited and cautious fashion. Urban services, public or private, should not be provided in these areas as a catalyst to stimulate intense development. In Pine Knoll Shores, these areas are generally limited to the Areas of Environmental Concern, both in the estuarine and ocean hazards systems, and in the 309-acre Theodore Roosevelt Natural Area. The Town zoning ordinance provides for the protection and in some cases, preservation of these areas. The Town's intentions for land uses and development practices for areas classified as Conservation on the Land Classification map are outlined in the policy statements in Section II of this plan.

VIII. PUBLIC PARTICIPATION

Five public meetings were held for the purpose of gaining public input into the Land Use Plan Update.

October 1, 1985

A public meeting was held Monday, October 1, 1985 at 7:30 p.m. in the town hall. The meeting was held to inform citizens of the issues to be addressed in this year's update plan and to receive any suggestions from the citizens.

January 29, 1986

A public meeting was held Wednesday, January 29, 1986 at 7:30 p.m. in the town hall. The meeting was held to report the results of the surveys that were mailed on December 26, 1985.

May 15, 1986

A public meeting was held Thursday, May 15, 1986 at 7:30 p.m. in the town hall. The meeting was held to review the Land Use Plan Policy Statements and to receive comments from town citizens.

May 26, 1987

Public meetings were held on May 26, 1987 at 2:00 p.m. and 7:30 p.m. to review the 1986 Land Use Plan Update. The Public input was noted and presented to the Town Board at its meeting on June 9, 1987.

Eight committee work sessions were held August 15, 1985; August 20, 1985; November 19, 1985; December 4, 1985; January 23, 1986; February 27, 1986; March 25, 1986; and June 6, 1986. All of the committee work sessions were open to the public. Committee work session dates were posted in the town hall prior to the meeting.

An integral part of the public particiation process was the administration of a property owners survey which took place as a part of the Land Use Plan Update. A total of 1,507 surveys were mailed on December 26, 1985. 881 surveys were returned. A more detailed summary of the survey is outlined on page five of this report.

IX. ACCEPTANCE BY TOWN BOARD OF COMMISSIONERS

At an advertised special meeting on June 28, 1987 of the Board of Commissioners of Pine Knoll Shores, the 1986 Land Use Plan Update was accepted by unanimous vote of those commissioners present (one commissioner was absent).

THE TOWN OF PINE KNOLL SHORES

P. O. BOX 757 — ATLANTIC BEACH, N. C. 28512

December 26, 1985

To all property owners in Pine Knoll Shores:

In 1976 the Town, as required by N.C. State law, prepared its first Land Use Plan and, also as required, prepared the five year update of the plan in 1981. Another update is required during 1986 and work is already proceeding on that document. A Land Use Plan determines the manner in which a town develops and, as property owners, your input is very important in the formulation of that plan. The attached survey/questionnaire will be used by the Land Use Plan Update Committee in drafting the plan which will be submitteed to the town commissioners for their review and possible approval.

Please respond as soon as you can, but not later than January 10, 1986, so that your thoughts and ideas may be considered by the committee. Your participation in this update survey will be appreciated as it has in the two earlier surveys.

It should be noted that our town is still in a growth phase and it is expected to grow for some time to come. Some of the changes during the past five years included:

1. a reduction of maximum allowable density in multi-family zoned areas from ten to eight per acre
2. an increase of maximum allowable density in motels/hotels from eight to twenty-two per acre
3. annexation of property at the western end of town and the establishment of an institutional zoned area and a commercial-residential zoned area containing two condominium projects
4. issuance of a landscape permit to prepare for construction of a shopping center in the Commercial Zone 3 area
5. rezoning of about 10 acres of Commercial-Residential Zone 2 to Commercial Zone 3
6. permission for Carolina Water Co. to erect a 250,000 gallon water tank on property in the Institutional Zone at the far west end of the town
7. acceptance of a Post Disaster Recovery Plan for the town which was prepared by the Civil Preparedness Committee
8. increase in year round population to 763 permanent residents
9. issuance of building permits for $14,862,050 value of residential property, $37,180,900 value of commercial property and $1,500,000 value of institutional property

Please answer the enclosed questions to the best of your ability, adding comments you think necessary and return the survey no later than January 10, 1986, addressed postage paid envelope included.

The information you supply will be used in strict confidence and in tabulated form only. Individual questionnaires will be destroyed after tabulation. Tabulated information will be made available at the town hall.

Thank you in advance for your participation in this every five year event.

Frederick C. Libby

F.C. Libby
Town Commissioner and
Chairman Land Use Plan Update Committee

12-26-85

1986 Land Use Plan Update - Questionnaire

CONFIDENTIAL

1. If you own a residence in Pine Knoll Shores,
   (a) Is it a single family residence ( ),
   unit in a multi-family structure ( )

   (b) Is Pine Knoll Shores your principal place of residence?
   yes ( ) no ( )
   If not, do you plan to make it so in the future?
   yes ( ) no ( )

2. If you own an unimproved lot in Pine Knoll Shores,
   (a) How many lots do you own? ( )

   (b) Do you plan to build and live in Pine Knoll Shores?
   yes ( ) no ( ) part-time ( ) full-time ( )

3. Are you satisfied with the way Pine Knoll Shores is evolving?
   yes ( ) no ( )
   If not, what are your objections and why?

   How in your opinion can improvements be accomplished?

4. Are you satisfied with the present zoning of Pine Knoll Shores?
   yes ( ) no ( )
   If not, what specific changes would you recommend?

5. The State is planning another bridge from the mainland to Bogue Banks and one of the alternative approaches would be into Pine Knoll Shores. Would you approve or disapprove of such a location:
   approve ( ) disapprove ( ) no opinion ( )

6. The State has adopted a program for establishing beach access facilities for the nonresident general public. Would you favor having such a facility in Pine Knoll Shores?
   yes ( ) no ( )
   If yes, do you think Pine Knoll Shores should provide funds for the facility?
   yes ( ) no ( )

7. What other comments or suggestions do you have for improving Pine Knoll Shores in the future?

Footnote: If you wish to expand your answers, use additional sheets of paper.

In the 1975 survey the following questions were asked. (questions 1 & 2) In the light of development since then, how would you answer these questions today?

1. What kind of community do you want?
   (a) Residential and retirement family resort with commercial development to serve community only

   (b) Same as above but with more general commercial

   (c) About equal number of single family homes, condominiums, motel rooms, with supporting commercial

   (d) Basically a retirement community

   (e) Unrestricted development of tourist attractions

2. Would you be willing to pay additional taxes for more community services?

Yes ( ) No ( )

Better Fire Protection	yes( )	no ( )
Increased Police Protection	yes( )	no ( )
Municipal Contracted Garbage Collection	yes( )	no ( )
Central Sewage System	yes( )	no ( )
Improved Water System	yes( )	no ( )
Beach Patrol	yes( )	no ( )
Youth Club and Activities	yes( )	no ( )
Beach Life Guard	yes( )	no ( )

3. Would you favor amending zoning ordinances to require larger square footage in single family residences?

Yes ( ) No ( )

4. The Town is currently studying the surface water problems caused by recent heavy rains. Assuming a permanent solution can be found for the problem, would you be willing to pay additional taxes to finance such a project?

Yes ( ) No ( )

Listing of State and Federal Regulations Affecting Costal Land and Water Resources

N.C. DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
(DIVISIONS OF ENVIRONMENTAL MANAGEMENT AND COASTAL MANAGEMENT)

STATE CONTROLS

-Permits to discharge to surface waters or operate waste water treatment plants or oil discharge permits; NPDES Permits, (G.S. 143-213)

-Permits for wastewater treatment systems with a capacity over 3000 gallons/day (G.S. 143-215.3)

-Permits for withdrawal of surface or ground waters in capacity use areas (G.S. 143-215.109)

-Permits for air pollution abatement facilities and sources (G.S. 143-215-109)

-Permits for construction of complex sources; e.g. parking lots, subdivision, stadiums, etc. (G.S. 143-215-109)

-Permits for construction of a well over 100,000 gallons/day (G.S. 87-88)

-Permits to dredge and /or fill in estuarine waters, tidelands, etc. (G.S. 113-229)

-Permits to Undertake development in areas of Environmental Concern (G.S. 113A-118)

NOTE: Minor C.A.M.A development permits are issued by the local government.

N.C. DEPARTMENT OF NATURAL RESOURCES AND COMMUNITY DEVELOPMENT
(DIVISION OF EARTH RESOURCES)

STATE CONTROLS

-Permits to alter or construct a dam (G.S. 143-215.66)

-Permits to mine (G.S. 74-51)

-Permits to drill and exploratory oil or gas well (G.S. 113-381)

-Permits to conduct geographical exploration (G.S. 113-391)

(SECRETARY OF NRCD)

STATE CONTROLS

-Sedimentation erosion control plans for any land disturbing activity of over one contiguous acre (G.S. 113A-54)

-Permits to construct an oil refinery

N.C. DEPARTMENT OF ADMINISTRATION

STATE CONTROLS

-Easements to fill where lands are proposed to be raised above the normal high water mark or navigable waters by filling (G.S. 146.6 (c))

N.C. DEPARTMENT OF HUMAN RESOURCES

STATE CONTROLS

-Approval to operate a solid waste disposal site or facility (G.S. 130-166.16)

-Approval to install individual ground absorption sewage disposal systems of 3,000 gallons or less design capacity - (G.S. 130-166)

N.C. DEPARTMENT OF HUMAN RESOURCES
(CONT'D)

-Approval for construction of any public water supply facility that furnishes water to 15 or more year-round residences or 25 or more year-round residents.

N.C. DEPARTMENT OF CULTURAL RESOURCES
(DIVISION OF ARCHIVES AND HISTORY)

FEDERAL

-National Historic Preservation Act of 1966

-The Archeological and Historic Preservation Act of 1974, Public Law 93-291

-Executive Order 11593, Protection and Enhancement of Cultural Environment, 16 U.S.C. 470 (Supp. 1,1971)

-National Environmental Policy Act, Public Law 19-190, 42 U.S.C 4321 F.L. Sep. (1970)

-Community Development Act of 1974, Public Law 98-383: Environmental Review Procedures for the Community Development Block Grant Program (40 CER Part 58)

-Procedures for the Protection of Historic and Cultural Properties (36 CFR Part 800)

-The Department of Transportation Act of 1966, Public Law 89-670

-Identification and Administration of Cultural Resources: Procedures of Individual Federal Agencies.

State

-G.S. 121-12 (a) Protection of Properties in the National Register.

N.C. DEPARTMENT OF CULTURAL RESOURCES
(DIVISION OF ARCHIVES AND HISTORY)
(CONT'D)

-State Environmental Policy Act, Article 1 of Chapter 113A of the General Statues

-Executive Order XVI

-Indian Antiquities, G.S. 70.1-4

-Salvage of Abandoned Shipwreck and other underwater Archeological Sites: G.S. 121-22, 23; 143B-62 (1) g, (3)

-Archeological Salvage in Highway Construction G.S. 136-42.1

-Provisions for Cultural Resources in Dredging and filling operations, G.S. 113-229

U.S. DEPARTMENT OF DEFENSE
(ARMY CORPS OF ENGINEERS)

FEDERAL CONTROLS

-Permits required under Sections 9 and 10 of the Rivers and Harbors of 1899; permits to construct in navigable waters.

-Permits required under Section 404 of the Federal Water Pollution Control Act of 1972; Permits to control the discharges of dredge or filled material into waters of the United States.

U.S. DEPARTMENT OF TRANSPORTATION
(COAST GUARD)
U.S. DEPARTMENT OF INTERIOR
(THE GEOLOGICAL SURVEY, BUREAU OF LAND MANAGEMENT)

FEDERAL CONTROLS

-Permits for bridges, causeways, pipelines over navigable waters; required under the General Bridge Act of 1946 and the Rivers and Harbors Act of 1899

-Deep water port permits

-Permits required for off-shore drilling

-Approvals of OCS pipeline corridor rights-of-way

U.S. NUCLEAR REGULATORY COMMISSION

FEDERAL CONTROLS

-Licenses for siting, construction and operation of nuclear power plants, ; required under the Atomic Energy Act of 1954 and Title II of the Energy Reorganization Act of 1974

U.S. ENERGY REGULATORY COMMISSION

FEDERAL CONTROLS

-Permits for construction, operations and maintenance of interstate pipelines facilities required under the Natural Gas Act of 1974

-Orders of interconnection of electric transmission facilities under Section 202 (b) of the Federal Power Act.

-Permission required for abandonment of natural gas pipeline and associated facilities under Section 7C (b) of the Natural Gas Act of 1938

-Licenses for non-federal hydroelectric projects and associated transmission lines under Sections 4 and 15 of the Federal Power Act.

DATE DUE

GAYLORD No. 2333			PRINTED IN U.S.A.

NOAA COASTAL SERVICES CENTER LIBRARY

3 6668 14108 3339