

**DRAFT**

# **TOWN OF ATLANTIC BEACH**



## **CORE LAND USE PLAN**

**August, 2006**

**Prepared by:**

**Holland Consulting Planners, Inc.  
Wilmington, North Carolina**

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TOWN OF ATLANTIC BEACH  
CORE CAMA LAND USE PLAN

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Appendix III	Town of Atlantic Beach Definitions of Common Terms

TOWN OF ATLANTIC BEACH  
CORE CAMA LAND USE PLAN

**MATRIX OF REQUIRED ELEMENTS**

CAMA CORE LAND USE ELEMENT	ELEMENT DISCUSSED
(a) Organization of the Plan	pages i, ii, and 1
(b) Community Concerns and Aspirations	
(1) Significant Existing and Emerging Conditions	page 11
(2) Key Issues	page 11
(3) A Community Vision	page 12
(c) Analysis of Existing and Emerging Conditions	pages 14-23
(1) Population, Housing, and Economy	
(A) Population:	
(i) Permanent population growth trends using data from the two most recent decennial Censuses;	
(ii) Current permanent and seasonal population estimates;	
(iii) Key population characteristics;	
(iv) Age; and	
(v) Income	
(B) Housing Stock:	pages 23-28
(i) Estimate of current housing stock, including permanent and seasonal units, tenure, and types of units (single-family, multi-family, and manufactured); and	
(ii) Building permits issued for single-family, multi-family, and manufactured homes since last plan update	
(C) Local Economy	pages 28-34
(D) Projections	pages 34-37

CAMA CORE LAND USE ELEMENT	ELEMENT DISCUSSED
<p>(2) Natural Systems Analysis</p> <p>(A) Mapping and Analysis of Natural Features</p> <ul style="list-style-type: none"> <li>(i) Areas of Environmental Concern (AECs);</li> <li>(ii) Soil characteristics, including limitations for septic tanks, erodibility, and other factors related to development;</li> <li>(iii) Environmental Management Commission water quality classifications and related use support designations, and Division of Environmental Health shellfish growing areas and water quality conditions;</li> <li>(iv) Flood and other natural hazard areas;</li> <li>(v) Storm surge areas;</li> <li>(vi) Non-coastal wetlands including forested wetlands, shrub-scrub wetlands, and freshwater marshes;</li> <li>(vii) Water supply watersheds or wellhead protection areas;</li> <li>(viii) Primary nursery areas, where mapped;</li> <li>(ix) Environmentally fragile areas; and</li> <li>(x) Additional natural features or conditions identified by the local government.</li> </ul>	pages 38-78
<p>(B) Composite Map of Environmental Conditions:</p> <ul style="list-style-type: none"> <li>(i) Class I</li> <li>(ii) Class II</li> <li>(iii) Class III</li> </ul>	pages 79-84

CAMA CORE LAND USE ELEMENT	ELEMENT DISCUSSED
<p>(C) Environmental Conditions</p> <p>(i) Water Quality:</p> <ul style="list-style-type: none"> <li>(I) Status and changes of surface water quality, including impaired streams from the most recent NC Division of water Quality Basinwide Water Quality Plans, 303(d) List and other comparable data;</li> <li>(II) Current situation and trends on permanent and temporary closures of shellfishing waters as determined by the Report of Sanitary Survey by the Shellfish Sanitation Section of the NC Division of Environmental Health;</li> <li>(III) Areas experiencing chronic wastewater treatment system malfunctions; and</li> <li>(IV) Areas with water quality or public health problems related to non-point source pollution</li> </ul> <p>(ii) Natural Hazards:</p> <ul style="list-style-type: none"> <li>(I) Areas subject to storm hazards such as recurrent flooding, storm surges, and high winds;</li> <li>(II) Areas experiencing significant shoreline erosion as evidenced by the presence of threatened structures or public facilities; and</li> <li>(III) Where data is available, estimates of public and private damage resulting from floods and wind that has occurred since the last plan update</li> </ul> <p>(iii) Natural Resources:</p> <ul style="list-style-type: none"> <li>(I) Environmentally fragile areas or areas where resource functions may be impacted as a result of development; and</li> <li>(II) Areas containing potentially valuable natural resources</li> </ul>	pages 84-89
(3) Analysis of Land Use and Development	
<p>(A) A map of land including the following: residential, commercial, industrial, institutional, public, dedicated open space, agriculture, forestry, confined animal feeding operations, and undeveloped;</p>	page 95

CAMA CORE LAND USE ELEMENT	ELEMENT DISCUSSED
(B) The land use analysis shall including the following: <ul style="list-style-type: none"> <li>(i) Table that shows estimates of the land area allocated to each land use;</li> <li>(ii) Description of any land use conflicts;</li> <li>(iii) Description of any land use-water quality conflicts;</li> <li>(iv) Description of development trends using indicators; and</li> <li>(v) Location of areas expected to experience development during the five years following plan certification by the CRC and a description of any potential conflicts with Class II or Class III land identified in the natural systems analysis</li> </ul>	pages 89-102
(C) Historic, cultural, and scenic areas designated by a state or federal agency or by local government	
(D) Projections of future land needs	
(4) Analysis of Community Facilities <ul style="list-style-type: none"> <li>(A) Public and Private Water Supply and Wastewater Systems</li> </ul>	pages 107-112
(B) Transportation Systems	page 103
(C) Stormwater Systems	pages 114-119
(D) Other Facilities	pages 104-114
(5) Land Suitability Analysis <ul style="list-style-type: none"> <li>(A) Water quality;</li> <li>(B) Land Classes I, II, and III summary environmental analysis;</li> <li>(C) Proximity to existing developed areas and compatibility with existing land uses;</li> <li>(D) Potential impacts of development on areas and sites designated by local historic commission or the NC Department of Cultural Resources as historic, culturally significant, or scenic;</li> <li>(E) Land use and development requirements of local development regulations, CAMA Use Standards and other applicable state regulations, and applicable federal regulations; and</li> <li>(F) Availability of community facilities, including water, sewer, stormwater, and transportation</li> </ul>	pages 130-133

CAMA CORE LAND USE ELEMENT	ELEMENT DISCUSSED
<p>(6) Review of Current CAMA Land Use Plan</p> <ul style="list-style-type: none"> <li>(A) Consistency of existing land use and development ordinances with current CAMA Land Use Plan policies;</li> <li>(B) Adoption of the land use plan’s implementation measures by the governing body; and</li> <li>(C) Efficacy of current policies in creating desired land use patterns and protecting natural systems</li> </ul>	pages 120-129
<p>(d) Plan for the Future</p> <p>(1) Land Use and Development Goals:</p> <ul style="list-style-type: none"> <li>(A) Community concerns and aspirations identified at the beginning of the planning process;</li> <li>(B) Needs and opportunities identified in the analysis of existing and emerging conditions</li> </ul>	pages 134-147
<p>(2) Policies:</p> <ul style="list-style-type: none"> <li>(A) Shall be consistent with the goals of the CAMA, shall address the CRC management topics for land use plans, and comply with all state and federal rules;</li> <li>(B) Shall contain a description of the type and extent of analysis completed to determine the impact of CAMA Land Use Plan policies on the management topics, a description of both positive and negative impacts of the land use plan policies on the management topics, and a description of the policies, methods, programs, and processes to mitigate any negative impacts on applicable management topics;</li> <li>(C) Shall contain a clear statement that the governing body either accepts state and federal law regarding land uses and development in AECs or, that the local government’s policies exceed the requirements of state and federal agencies.</li> </ul>	pages 147-178

CAMA CORE LAND USE ELEMENT	ELEMENT DISCUSSED
(3) Land Use Plan Management Topics.	
(A) Public Access	page 152
(B) Land Use Compatibility	page 153
(C) Infrastructure Carrying Capacity	page 164
(D) Natural Hazard Areas	page 166
(E) Water Quality	page 168
(F) Local Areas of Concern	page 172
<p>(4) Future Land Use Map</p> <ul style="list-style-type: none"> <li>(A) 14-digit hydrological units encompassed by the planning area;</li> <li>(B) Areas and locations planned for conservation or open space and a description of compatible land use and activities;</li> <li>(C) Areas and locations planned for future growth and development with descriptions of the following characteristics: <ul style="list-style-type: none"> <li>(i) Predominant and supporting land uses that are encouraged in each area;</li> <li>(ii) Overall density and development intensity planned for each area;</li> <li>(iii) Infrastructure required to support planned development in each area</li> </ul> </li> <li>(D) Areas in existing developed areas for infill, preservation, and redevelopment;</li> <li>(E) Existing and planned infrastructure, including major roads, water, and sewer</li> </ul>	pages 178-187
<p>(e) Tools for Managing Development</p> <ul style="list-style-type: none"> <li>(1) Guide for Land Use Decision-Making</li> <li>(2) Existing Development Program</li> <li>(3) Additional Tools. <ul style="list-style-type: none"> <li>(A) Ordinances: <ul style="list-style-type: none"> <li>(i) Amendments or adjustments in existing development codes required for consistency with the plan;</li> <li>(ii) New ordinances or codes to be developed</li> </ul> </li> <li>(B) Capital Improvements Program</li> <li>(C) Acquisition Program</li> <li>(D) Specific Projects to Reach Goals</li> </ul> </li> <li>(4) Action Plan/Schedule</li> </ul>	pages 188-194

# PREFACE

## WHY IS A PLAN NEEDED?

This plan is intended to fulfill the Coastal Area Management Act (CAMA) requirements for the preparation of a Core CAMA Land Use Plan. This plan is organized to adhere to the 15A NCAC 7B requirements. The matrix following the table of contents specifies how/where compliance with 15A NCAC 7B is accomplished. The reader should review Section VII: Tools for Managing Development which begins on page 188.

This is a Core Land Use Plan. The Core Plan is defined as follows:

**Core Plan:** This plan addresses all of the plan elements in Rule .0702 of Section 7B (Elements of CAMA Core and Advanced Core Land Use Plans) in a complete and thorough manner. These are summarized as follows: (1) Organization of the Plan, (2) Community Concerns and Aspirations, (3) Analysis of Existing and Emerging Conditions with the jurisdiction, and (4) Plan for the Future. This type of plan is the standard CAMA Land Use Plan required for all 20 coastal counties.

The reader should not attempt to understand the plan by reading only several sections of the document. All sections of the plan are inter-related. However, significant sections of the plan include the following:

- Analysis of Existing and Emerging Conditions, page 13.
- Analysis of Land Use and Development, page 89.
- Land Suitability Analysis, page 131.
- Plan for the Future, page 134.
- Tools for Managing Development, page 188.

In addition to the CAMA requirements, there are other reasons to plan. Atlantic Beach has a great deal of influence on the way in which the town develops. The buildings, facilities, and improvements provided by Atlantic Beach affect the daily lives of its citizens, give form to the town, and stimulate or retard the development of privately-owned land. In addition, the workings of the real estate market help determine the uses of private land, but these uses are regulated by Atlantic Beach. The town has an opportunity to coordinate the overall pattern of physical development.

Atlantic Beach is inescapably involved in questions of physical development. At almost every meeting of the Board of Commissioners, development decisions must be made concerning rezoning, street improvements, sites for public buildings, and so on. Atlantic Beach – and particularly the legislative body made up of lay citizens – needs some technical guidance in making these physical development decisions. Atlantic Beach needs an instrument that establishes long-range, general policies for the physical development of the community in a coordinated, unified manner, and which can be continually referred to in deciding upon the development issues that come up every week. The comprehensive plan is such an instrument.

Once this plan is adopted, the town must realize that the plan is not the end of the process. Atlantic Beach must continuously work at accomplishing plan implementation and establishing an effective planning program. **The town must view the preparation of this document as the first step in a continually evolving process.**

The policies and implementing actions section of this plan, pages 152 to 177 includes numerous recommendations for new regulatory ordinances and revisions to existing regulatory ordinances. These revisions are essential to the successful implementation of this document.

## SECTION 1. INTRODUCTION

This fiscal year 2004/2005 - 2005/2006 Core CAMA Land Use Plan is prepared in accordance with the requirements of the North Carolina Coastal Area Management Act (CAMA). Specifically, this document complies with Subchapter 7B, "CAMA Land Use Planning Requirements," of the North Carolina Administrative Code, as amended, August 1, 2002.

The 7B guidelines provide that each of the twenty coastal counties and municipalities within those counties prepare and adopt a Core CAMA Land Use Plan that meets the planning requirements adopted by the Coastal Resources Commission (CRC). If a county chooses not to prepare a plan, the guidelines specify that the CRC will prepare and adopt a CAMA Land Use Plan for that county and municipalities within the county which choose not to prepare their own plan. Municipalities not preparing their own plan will be included in the plan for the county in which the municipality is located.

At the beginning of the preparation of this document, the Town of Atlantic Beach adopted a Citizen Participation Plan which is intended to ensure that all interested citizens have an opportunity to participate in the development of this plan through both oral and written comments. A copy of the Citizen Participation Plan is included as Appendix I. The citizen input received during the development of this plan has greatly influenced the final contents of the plan and its policies.

The Town of Atlantic Beach guided the development of this plan. The Atlantic Beach Planning Board was composed of the following members:

Joe Tarascio, Chairman	Vada Palma
Larry Burke	Trace Cooper
Tom Outlaw	Dewey L. Bordeaux, III
Karen Koenig	Jim Bailey
Norman Livengood	Ellen Womer

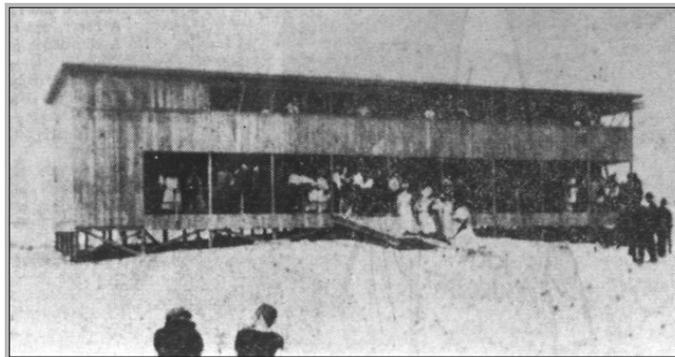
Following adoption of the plan by the Atlantic Beach Board of Commissioners, it was submitted to the CRC for certification. Certification of the plan was achieved on \_\_\_\_\_, 2006.

## SECTION 2. HISTORY

The following history of Atlantic Beach was prepared by James N. “Cap’n Jim” Willis III. It is an excellent summary and has been utilized verbatim.

“The resort that is now Atlantic Beach, North Carolina was first visualized in the 1870s by Appleton Oaksmith, one of the most colorful characters of mainland Carteret County. His vision for east Bogue Banks was that of a new resort by the sea. He first chose Fort Macon, but was unsuccessful. He then turned his attention to the area which now comprises all of Atlantic Beach and a portion of east Pine Knoll Shores. He soon acquired title to all of this property in the names of two straw ladies, his wife, Augusta, and her sister, Ellen Mason. But alas, Oaksmith was not to achieve his dream, for on July 4, 1879, he lost four of his daughters in a tragic accident and lost the will to fulfill his dream.

“It remained for John J. Royal of Morehead City and Winfield S. Chadwick of Beaufort to begin the construction of Oaksmith’s vision. In 1887, they built the first bathing pavilion on Bogue Banks in the location of present day Club Colony. They had a ready-made clientele that Oaksmith did not visualize, the patrons of the new Atlantic Hotel across Bogue Sound in Morehead City. The old Atlantic Hotel in Beaufort had been destroyed by the hurricane of 1879 and in 1880 the Morehead City Hotel Company constructed the “New Atlantic Hotel” in Morehead City at the terminus of the Atlantic and North Carolina Railroad in order to make hotel accommodations in the area more convenient for the former patrons of the old Atlantic Hotel. They were quite successful, since many of the old Atlantic customers became patrons of the new hotel. Many of its guests desired to bathe in the ocean surf, but there was no bathing pavilion on the ocean side of Bogue Banks to accommodate them. So, Royal and Chadwick provided one, and the resort of Atlantic Beach was begun. Patrons of the Hotel flocked to the newly accessible beach in droves, and a brisk ferry trade to the Banks ensued.



**Royal Pavilion**

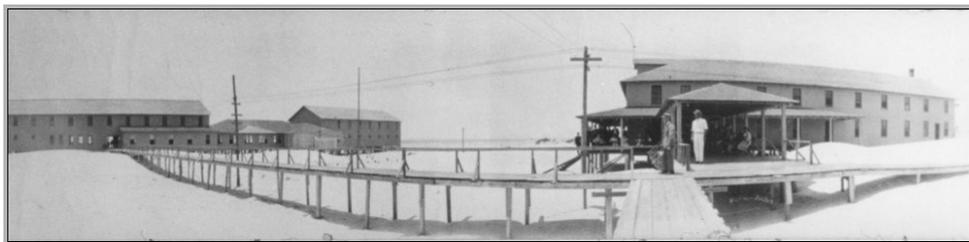
“In 1898 Royal and Chadwick split their holdings, with Chadwick getting the east portion and Royal the west. Royal then built his own pavilion on a much grander scale in the location of today’s Sportsman’s Pier. This was the beginning of the development that became known eventually as Money Island Beach. After Royal’s death in 1909 the development passed through many hands, and a hotel was eventually built near the present site of Courie’s Villa. This new beach development, begun by Royal, thrived over the years while the original pavilion declined in popularity. This resort had many names over the years including Atlantic View Beach, Ocean Beach, and finally Money Island Beach.



**Money Isle, Beach Side**



**Villa Queen Hotel**



**Money Isle Bath House Complex from North**

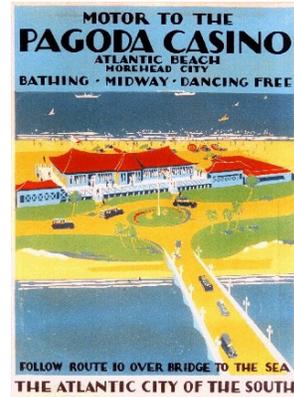
“In 1922, another bathing pavilion and ballroom was opened just east of the present Triple-S Pier by V. Asbury. The development was known as Asbury Beach and the following year was reserved exclusively for blacks, since these were the days of segregation.

“In 1926 an event occurred that signaled the eventual decline of Money Island Beach and the demise of Chadwick’s and Asbury’s pavilions. In that year a group of Morehead City and Beaufort investors formed two corporations, one to buy and develop a new resort on Bogue Banks and the other to build a modern bridge across Bogue Sound to this new development. By the summer of 1928 both goals had been achieved and the new “Atlantic Beach” opened for business. This new resort was located west of the Royal Pavilion in an area that became known as the “Circle”. Initially it contained two bathhouses (formerly known as bathing pavilions), one each for men and women, separated by a large ballroom style dance hall called the Pavilion. There were also several accessory buildings constructed nearby along with an office building in the center

of unopened West Bogue Boulevard at its intersection with West Drive. All structures were oriental in design, and referred to as Pagoda, a feature that distinguished them from all past and future construction. More importantly, this new beach was accessible by motor car while the others were not. Thus, the new "Atlantic Beach", which could be reached by motor car, prospered, while the older less accessible developments declined.



**Pagoda Pavilion**



**1928 Poster**



**Bridge with Pagoda Toll Booth**

“This oriental style beach was short lived, however, for on July 20, 1929 fire destroyed all but the little office building. This building was later moved to an oceanfront lot on West Boardwalk and served as the summer residence of the beach managers for many years. Today it is a private residence and is known as the Pagoda House. It is the oldest documented structure in present day Atlantic Beach.



**Pagoda Temple - Aerial**



**Pagoda Temple - Note Upswept Roof Corners**

“In the autumn of 1929 the great depression occurred and the owners of the Atlantic Beach property defaulted on their loans. The property finally ended up in the ownership of the Manufacturers Bank and Trust Company of New York. The company sent Robert Cordon down to review the property for a possible reconstruction of the development. Upon receiving a favorable report from Cordon, the officials of the company formed a new corporation, the Atlantic Beach and Bridge Company, to rebuild the resort proper and operate the bridge. The bridge was a toll bridge from its opening and remained so until sold to the State of North Carolina in 1934.

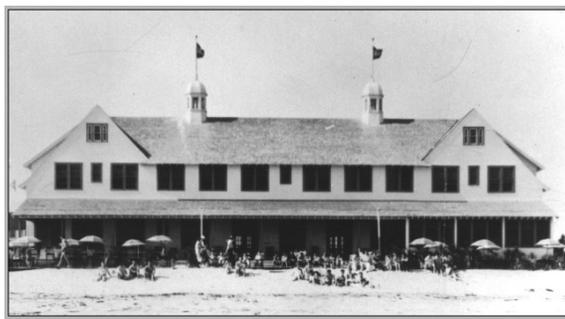
“Two new bathhouses, a dance hall named the Casino, and several assorted drink stands were built in 1930, and the beach reopened for business.



Mr. and Mrs. E. J. Willis moved to Atlantic Beach and became the first permanent residents who stayed. They spent the first year in the little office building that had not burned, since the hotel was still under construction. In 1934 their son, James N. “Cap’n Jim” Willis III, was born, and he became the first person to call Atlantic Beach home from birth.



**Newman Willis,  
Mayor**

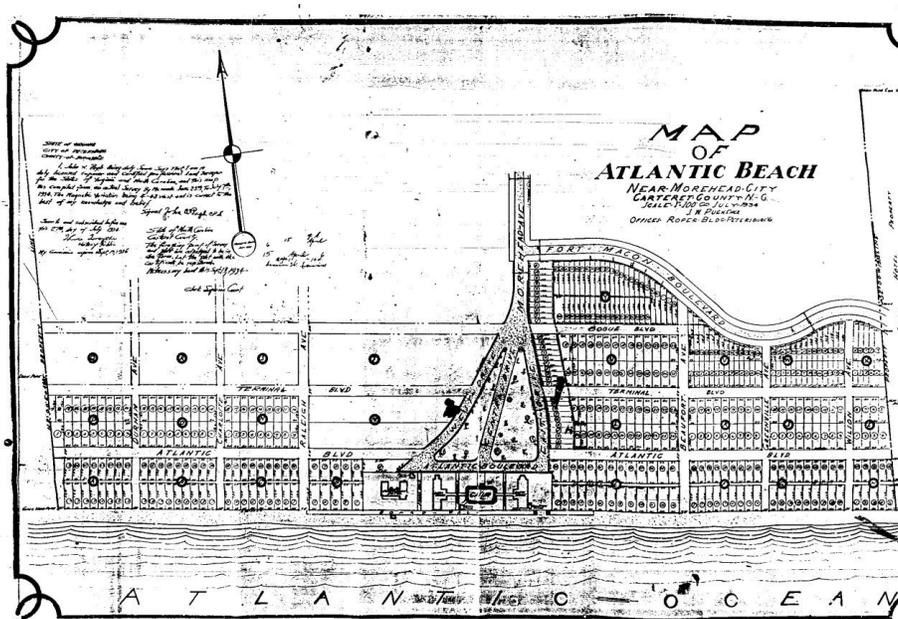


**Atlantic Beach Hotel**



**“Miss Etta”**

“During the thirties, the tract of land surrounding the “circle” was platted with lots and streets extending out to the east and west of the “Circle”. The streets running east and west were called Boulevards and named for local geographical features, and those running north and south were called Avenues and named in honor of towns and cities in North Carolina. Lots were sold, and in 1932 the first cottage in the new “Atlantic Beach” was built by Ed Batchelor from Greenville, NC, on the lot just west of the future Seashore Club.



Atlantic Beach Map, 1934

“Cottages were also built in Money Island Beach in the 1920’s and 1930’s, but we are not sure of the dates of construction of those that remain. The Batchelor cottage was destroyed by fire along with the Seashore Club many years ago. A boardwalk was also constructed along the oceanfront from one end of the property to the other. In front of the “Circle” the boardwalk was wider than the east and west portions and the planking ran parallel with the ocean shoreline. In the spring of 1940 the boardwalk here was rebuilt and the planking placed perpendicular to the shoreline. Thus old photos of the “Circle” during this time period can be dated pre or post 1940 by the orientation of the boardwalk planking.”



Circle Boardwalk, 1931-32



Boardwalk, 1941-42

During the post-war period through the 1990s, the attractions centered around “The Circle” area and relatively extensive public beach access helped the Town solidify its reputation as a location where hard-working families, primarily from Central and East-Central North Carolina, could come and spend an affordable day, a weekend, or a week at the beach. Commercial and residential development oriented towards tourists, such as restaurants and motels, expanded up and down Fort Macon Road and the Town grew west all the way to its current boundary with the Town of Pine Knoll Shores in the 1990s and east to Fort Macon State Park. Many cottages were replaced by duplexes and mobile homes during this period, to allow for more and more seasonal and permanent residents.

The town simultaneously became a destination for retirees from throughout the region and the Country and numerous condominium developments sprang up during the 1970s, 1980s, and 1990s primarily to serve these newcomers, as well as for rentals to seasonal visitors.

### SECTION 3. REGIONAL SETTING

Atlantic Beach is located on Bogue Banks in southern Carteret County. The town is situated on the eastern end of Bogue Banks across Bogue Sound from Morehead City, approximately 150 miles southeast of Raleigh, North Carolina (the state capital).

Atlantic Beach’s location is accessible to large portions of North Carolina’s population, making it an easy tourist destination. Surrounding cities and towns (with distance in miles) include: Jacksonville (45 miles), New Bern (35 miles), Greenville (79 miles), Kinston (70 miles), Goldsboro (96 miles), Wilson (110 miles), and Rocky Mount (120 miles). Located between the Atlantic Ocean and Bogue Sound, the town is almost completely surrounded by water. Map 1 depicts the town’s regional location.

Atlantic Beach’s location on Bogue Banks is significant. Bogue Banks offers a unique coastal environment in North Carolina. The island is occupied by Atlantic Beach, Pine Knoll Shores, Indian Beach, and Emerald Isle. The following summarizes Bogue Banks’ acreage and the acreage of its municipalities:

<u>Municipalities</u>	<u>Acres</u>
Atlantic Beach	1,650.6
Emerald Isle	3,207.3
Indian Beach	322.5
Pine Knoll Shores	1,289.0
	<hr/>
	6,469.4
Unincorporated	844.1
	<hr/>
Bogue Banks	7,313.5

Please note that throughout this document, total Atlantic Beach land area will vary between 1,650.6 acres (total town limits) and 1,325.9 acres (total parcels) due to the fact that 146.4 acres are water and 178.3 acres are right-of-way. The most appropriate figures have been used.

The Bogue Banks municipalities are confronted with many similar developmental and environmental problems. Bogue Banks and its municipalities are depicted on Map 2.

MAP 1 - REGIONAL LOCATION MAP

MAP 2 - BOGUE BANKS AND MUNICIPALITIES

## SECTION 4. ATLANTIC BEACH COMMUNITY CONCERNS AND ASPIRATIONS

### A. KEY ISSUES/DOMINANT GROWTH-RELATED ISSUES

This document will attempt to assess all issues and concerns that may affect the growth and natural environment in the Town of Atlantic Beach over the 5-year planning period. Due to resource and time limitations, however, primary, or “key” issues must be identified and prioritized. These key issues are those that the Town will spend additional resources in analyzing, assessing and developing goals, policies, objectives, and implementing tasks to address over the planning period.

In order to identify these issues, the Town held an Issues Identification Meeting on February 1, 2005. This meeting was widely advertised, through direct solicitation of citizens with known interests in civic affairs and representatives of organizations with interest in these affairs (including representatives of State agencies responsible for CAMA Plan oversight). Additionally, a notice was sent to a randomly selected 10% of all landowners in the Town (43 landowners of approximately 435) and was advertised in the Carteret County News-Times newspaper.

At the meeting, the Town’s planning consultants, Holland Consulting Planners, Inc., provided an overview of the CAMA Land Use Planning process and then led the assembled group of approximately 15 persons in a “brainstorming” session to identify issues that the group adjudged to be significant to the Town of Atlantic Beach’s growth and environment over the planning period. These issues were then listed on large writing pads and affixed to the wall of the Atlantic Beach Town Hall Boardroom where the meeting was held. At the end of the meeting, participants received 10 “votes” and identified their 10 top issues (1 vote per issue - no “multi-voting” with multiple votes per issue). The results are recorded below:

#### Key Issues identified at the February 1, 2005 Issues Identification Meeting

Town Meeting			
# of Votes	Rank	Issue	Absentee Ranking
8	1	Beach Maintenance	1
7	2	Beach Renourishment Efforts (especially from Brandt Island)	4
6	3	Density of Future Development	2
6	4	Development of Sewer System	3
6	5	Tree Ordinance/Tree Protection	10
5	6	Commercial and Residential Redevelopment	7
5	7	Development Regulations	5



Atlantic Beach's mission is to establish development and redevelopment patterns that preserve and promote its residential neighborhoods and commercial business areas while protecting the vital natural resources that make Atlantic Beach a truly unique destination. Atlantic Beach will achieve this through enhancement of Town services and infrastructure; protection of the Town's wetlands, maritime forests, and natural areas of the Atlantic Ocean and Bogue Sound; and through the encouragement of private investment that utilizes creativity to promote sustainable development that is beneficial to all visitors and residents of the Town.

The following issues are important to the Town's future:

- Protection of environmental assets.
- Preserving a small town atmosphere.
- Prudent economic development.
- Partnerships.
- Balance needs of permanent, visitor, and seasonal population.
- Encouraging mixed-use, including entertainment uses.
- Open access to the beach and sound areas.
- Encourage non-automobile transit improvements.
- Enhancement of town services and infrastructure.
- Sustainable development through encouragement of creative private investment.
- Vibrant and diverse community.

## SECTION 5: ANALYSIS OF EXISTING AND EMERGING CONDITIONS

### A. POPULATION, HOUSING, AND ECONOMY

#### 1. Atlantic Beach Permanent Population

Because Atlantic Beach is impacted by the region in which it is located and Carteret County as a whole, both the Eastern Carolina Council of Governments (Region P) and Carteret County population data have been analyzed. The regional and county population trends support growth trends in Atlantic Beach when growth within the region and Carteret County is strong.

##### a. *Eastern Carolina Council of Governments, Region P*

North Carolina is divided into 18 regions for the purpose of coordinating planning efforts between neighboring counties. Atlantic Beach and Carteret County are located in Region P. This region also includes Craven, Jones, Onslow, Pamlico, Wayne, Greene, Lenoir, and Duplin counties. Table 1 provides a summary of population changes and growth percentages for Region P counties and North Carolina. According to the 2000 Census, Carteret County was the fastest growing county in Region P and had achieved a 2000 population of 59,383.

Table 1: Region P  
Total Population and Percentage Change, 1970-2000

County	1970	1980	1990	2000	Percent Change			Overall '70-'00
					'70-'80	'80-'90	'90-'00	
<b>Carteret</b>	<b>31,603</b>	<b>41,092</b>	<b>52,553</b>	<b>59,383</b>	<b>30.0%</b>	<b>27.8%</b>	<b>12.9%</b>	<b>87.9%</b>
Craven	62,554	71,043	81,613	91,523	13.5%	14.8%	12.1%	46.3%
Duplin	38,015	40,952	39,995	40,063	7.7%	-2.3%	0.1%	5.3%
Greene	14,967	16,117	15,384	18,974	7.6%	-4.5%	23.3%	26.7%
Jones	9,779	9,705	9,414	10,381	-0.8%	-3.0%	10.3%	6.2%
Lenoir	55,204	59,819	57,274	59,636	8.3%	-4.4%	4.1%	8.0%
Onslow	103,126	112,784	149,838	150,355	9.3%	32.8%	0.3%	45.7%
Pamlico	9,467	10,398	11,368	12,934	9.8%	9.3%	13.7%	36.6%
Wayne	85,408	97,054	104,666	113,329	13.6%	7.8%	8.3%	32.7%
Region P	410,123	458,964	522,105	556,578	12.2%	14.1%	6.5%	36.4%
North Carolina	5,084,442	5,880,095	6,632,448	8,049,313	15.6%	12.8%	21.4%	65.5%

Source: US Census Bureau.

Carteret County’s population increased from 31,603 in 1970 to 59,383 in 2000, an increase of 87.9%. This rate of increase was well above Region P’s increase of 36.4% and North Carolina’s increase of 65.5%. Most of the county’s growth has occurred in the beach communities and along the sound shoreline areas.

Table 2 provides a summary of the 1970-2000 Carteret County population growth by township. The Morehead City Township, which includes the municipalities of Atlantic Beach, Morehead City, Pine Knoll Shores, and Indian Beach, had an overall population increase of 99.1% from 1970 to 2000. During the 30-year period, the total township population increased from 11,929 to 23,748. Thus, the Morehead City Township was responsible for 11,819 people, or 42.5% of Carteret County’s total population growth from 1970 to 2000. The township had the largest total population increase of any of the county’s townships.

Atlantic Beach had a population increase from 1970 to 2000 of 1,481 people, an increase of 493.7%. However, from 1990 to 2000, Atlantic Beach experienced a population decrease from 1,938 to 1,781, a decrease of -8.1%. Within the county, only Emerald Isle experienced a higher growth rate. Most of the town’s population growth occurred from 1980 to 2000. Graph 1 summarizes the permanent population growth from 1970 to 2000. Map 3 depicts net migration for the North Carolina counties.

Graph 1: Town of Atlantic Beach  
Permanent Population Growth, 1970-2000

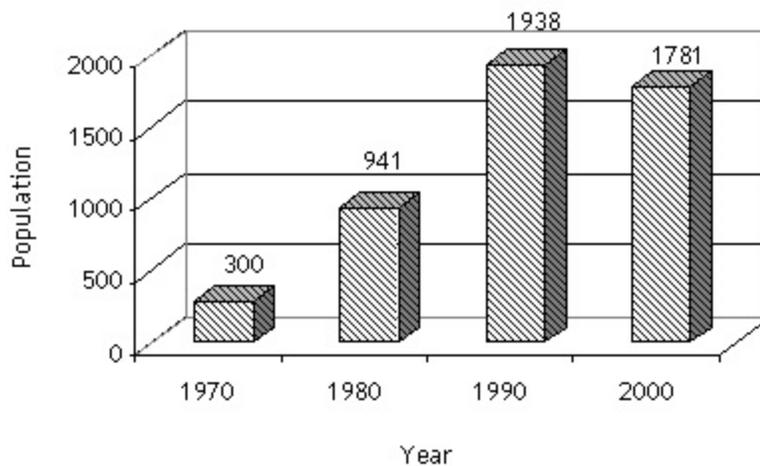


Table 2: Town of Atlantic Beach and Carteret County, NC  
 Summary of Year-Round Population Growth by Township and Municipality, 1970-2000

Township	Municipality or Area	Year-Round Population				Percentage Change			
		1970	1980	1990	2000	'70-'80	'80-'90	'90-'00	Overall '70-'00
1) Atlantic	Total Township	814	810	804	817	-0.49%	-0.62%	1.5%	0.4%
2) Beaufort	Beaufort	3,368	3,826	3,808	3,771	13.60%	-0.47%	-1.0%	11.9%
	Unincorporated Area	<u>2,279</u>	<u>3,166</u>	<u>4,205</u>	<u>3,894</u>	13.93%	32.82%	-7.4%	40.1%
	Total Township	6,147	6,992	8,013	7,665	13.75%	14.60%	-4.3%	24.7%
3) Cedar Island	Total Township	290	333	385	324	14.83%	15.62%	-15.8%	11.7%
4) Davis	Total Township	456	492	535	412	7.89%	8.74%	-22.9%	-9.6%
5) Harkers Island	Total Township	1,639	1,910	2,237	1,525	16.53%	17.12%	-31.8%	-6.9%
6) Harlowe	Total Township	762	956	1,190	1,272	25.46%	24.48%	6.9%	66.9%
7) Marshallberg	Total Township	525	580	646	528	10.48%	11.38%	-18.3%	0.6%
8) Merrimon	Total Township	330	426	542	657	29.09%	27.23%	21.2%	99.1%
9) Morehead City	Atlantic Beach	300	941	1,938	1,781	213.67%	105.95%	-8.1%	493.7%
	Indian Beach	0	54	153	95	N/A	183.33%	-37.9%	N/A
	Morehead City	5,233	4,359	6,046	7,691	-16.70%	38.70%	27.2%	46.9%
	Pine Knoll Shores	0	646	1,360	1,524	N/A	110.53%	12.1%	N/A
	Unincorporated Area	<u>6,396</u>	<u>9,803</u>	<u>10,985</u>	<u>12,657</u>	53.27%	12.06%	15.2%	197.8%
	Total Township	11,929	15,803	20,482	23,748	32.48%	29.61%	15.9%	99.1%
10) Newport	Newport	1,735	1,883	2,516	3,349	8.53%	33.62%	33.1%	93.03%
	Unincorporated Area	<u>2,191</u>	<u>3,586</u>	<u>4,817</u>	<u>4,977</u>	63.67%	34.33%	3.3%	127.16%
	Total Township	3,926	5,469	7,333	8,326	39.30%	34.08%	13.5%	112.07%

Table 2 (continued)

Township	Municipality or Area	Year-Round Population				Percentage Change			
		1970	1980	1990	2000	'70-'80	'80-'90	'90-'00	Overall '70-'00
11) Sea Level	Total Township	347	540	773	461	55.62%	43.15%	-40.4%	32.85%
12) Smyrna	Total Township	517	637	782	679	23.21%	22.76%	-13.2%	31.33%
13) Stacy	Total Township	257	322	401	206	25.29%	24.53%	-48.6%	-19.84%
14) Straits	Total Township	1,166	1,520	1,948	2,686	30.36%	28.16%	37.9%	130.36%
15) White Oak	Cape Carteret	616	944	1,008	1,214	53.25%	6.78%	20.4%	97.08%
	Emerald Isle	122	865	2,434	3,488	609.02%	181.39%	43.3%	2,759.02%
	Cedar Point	0	0	628	929	N/A	N/A	47.9%	N/A
	Unincorporated Area	<u>1,758</u>	<u>2,493</u>	<u>2,413</u>	<u>4,442</u>	41.81%	-3.21%	84.1%	152.67%
	Total Township	2,496	4,302	6,483	10,073	73.36%	50.70%	55.4%	303.57%
Total Municipalities		11,374	13,518	19,891	23,842	18.85%	47.14%	19.8%	109.62%
Total Unincorporated Areas		<u>20,229</u>	<u>27,574</u>	<u>32,662</u>	<u>35,537</u>	<u>36.31%</u>	<u>18.45%</u>	<u>8.8%</u>	<u>75.67%</u>
Total County		31,603	41,092	52,553	59,383	30.03%	27.90%	12.9%	87.89%

The NC Office of State Planning provides the following population estimates: Carteret County 2005 population estimate - 62,766; Atlantic Beach 2004 population estimate - 1,791.

Source: NC State Data Center; extrapolation of data for unincorporated areas by Holland Consulting Planners, Inc.

MAP 3 - POPULATION GROWTH THROUGHOUT NC COUNTIES

b. *Seasonal Population*

Atlantic Beach has a significant seasonal population. In 2000, the peak seasonal population was 27,431, which was 15.1 times the permanent year-round population. Table 3 defines the town’s peak seasonal population and relationship to the permanent population from 1970 to 2000. The peak seasonal population has not grown as rapidly during the last 30 years as has the permanent year-round population. From 1970 to 2000, the permanent year-round population increased by 493.7%, while the peak seasonal population increased by 367.9%.

Table 3: Town of Atlantic Beach, NC  
Permanent, Seasonal, and Total Peak Population, 1970-2000

Population	1970	1980	1990	2000	Percentage Change			
					'70-'80	'80-'90	'90-'00	Overall '70-'00
Permanent	300	941	1,958	1,781	213.7%	108.1%	-9.0%	493.7%
Peak Seasonal	5,475	13,017	20,755	25,620	137.8%	59.5%	23.4%	367.9%
Total Peak Seasonal Population	5,775	13,958	22,713	27,401	141.7%	62.8%	20.6%	374.5%

Source: 1996 Land Use Plan; Holland Consulting Planners, Inc.

Day visitation significantly increases Atlantic Beach’s population during the summer tourist season. Day visitation is defined as visitors traveling to the beach and departing on the same day; therefore, not increasing the overnight peak seasonal population. The town conservatively estimates that on the three major tourist holidays of the year including Memorial Day, Fourth of July, and Labor Day, the town’s population soars to over 45,000 persons.

This estimate is justified through a calculation utilizing peak seasonal population, and traffic count data. Based on the 2002 average daily traffic counts (12,600) of vehicles coming onto Atlantic Beach over the South Atlantic Beach Causeway, it is estimated that the average daily increase in visitation is 25,200 persons. This estimate assumes that two persons are traveling in each vehicle. Additionally, traffic traveling through Atlantic Beach to other towns along Bogue Banks have been subtracted from this estimate. If this figure is added to the peak seasonal population, the peak average daily visitation to Atlantic Beach for the year 2000 would be 50,820. If this is reduced by ten percent to account for error, the resulting estimate is 45,198; therefore, verifying the town’s estimate.

c. *Atlantic Beach Population Profile*

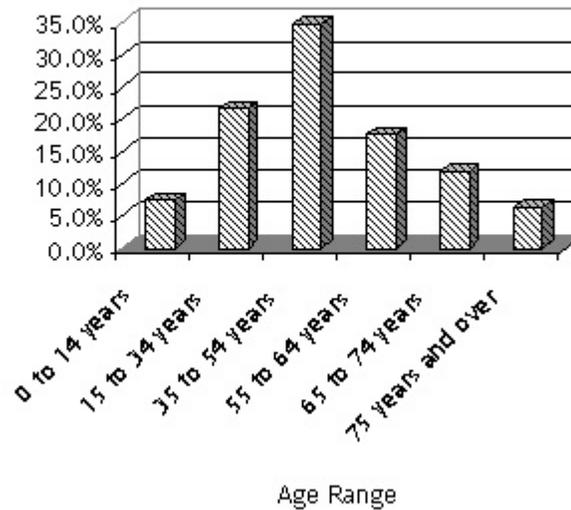
In 2000, the majority of Atlantic Beach’s population was 35 years old or older (70.9%). Of the total population, 36% was 55 years or older. The age of the total population of Atlantic Beach has been increasing. From 1990 to 2000, the median age of the town’s population increased from 31.3 to 48.7 years. This increase is attributed to the in-migration of retired people. Table 4 provides a summary of the age composition of the town. The distribution of male/female population changed little from 1990 to 2000. In 1990, the male population comprised 53.3% of the total population. By 2000, male population had decreased slightly to 52.8% of the total population. Graph 2 depicts the age distribution.

Table 4: Town of Atlantic Beach and North Carolina  
Age Composition, 2000

	Atlantic Beach		North Carolina	
	2000	2000 % of Total	2000	2000 % of Total
0 to 14 years	132	7.4%	1,653,429	20.5%
15 to 34 years	387	21.7%	2,330,854	29.0%
35 to 54 years	622	34.9%	2,372,270	29.5%
55 to 64 years	316	17.7%	723,712	9.0%
65 to 74 years	213	12.0%	533,777	6.6%
75 years and over	111	6.3%	435,271	5.4%
Total Population	1,781	100.0%	8,049,313	100.0%
Male Population	941	52.8%	3,942,695	49.0%
Female Population	840	47.2%	4,106,618	51.0%
Median Age	48.7		35.3	

Source: 2000 US Census.

Graph 2: Town of Atlantic Beach  
Age Composition, 2000



The population of Atlantic Beach has an unusual comparison to educational attainment for the State of North Carolina as a whole. In 2000, the town lagged behind the state in educational attainment for high school graduates or lower grades. However, above the high school level, Atlantic Beach ranked ahead of North Carolina. This is attributed to the strong in-migration of the retired population. Table 5 provides a summary of educational attainment.

Table 5: Town of Atlantic Beach and North Carolina  
Education Attainment, 2000 (Based on Persons 25 Years Old or Older)

	Atlantic Beach		North Carolina	
	Total	% of Total	Total	% of Total
Less than 9 <sup>th</sup> Grade	43	2.8%	413,495	7.8%
9 <sup>th</sup> to 12 <sup>th</sup> Grade, no diploma	109	7.2%	741,229	14.0%
High School Graduate (includes equivalency)	354	23.3%	1,502,978	28.4%
Some College, no degree	428	28.2%	1,080,504	20.5%
Associate Degree	119	7.8%	358,075	6.8%
Bachelor's Degree	328	21.6%	808,070	15.3%
Graduate/Professional Degree	138	9.1%	378,643	7.2%
Total Population 25 Years and Older	1,519	100.0%	5,282,994	100.0%

Source: 2000 US Census.

Atlantic Beach has very little minority population. Table 6 provides a summary of the 2000 racial distribution. Only 2% of the town’s population was non-white. Of the non-white population, only 0.6% was African-American. This represents a slight decline from 1990 when 10.3% of the town’s population was African-American.

Table 6: Town of Atlantic Beach and North Carolina Racial Composition, 1990-2000

	Atlantic Beach		North Carolina	
	Total	% of Total	Total	% of Total
2000 Population	1,781	100.0%	8,049,313	100.0%
White	1,746	98.0%	5,804,656	72.1%
Black or African-American	11	0.6%	1,737,545	21.6%
American Indian or Alaska Native	4	0.2%	99,551	1.2%
Other Race	8	0.4%	186,629	2.3%
Hispanic or Latino (or any race)*	12	0.8%	378,963	4.7%

\*In the 2000 Census, the Hispanic race was not considered an ethnic group. However, this is the number of individuals who reported being of Hispanic origin.

Source: 2000 US Census.

*d. Population Summary*

- From 1970 to 2000, Atlantic Beach experienced a population increase of 493.7%; however, total population decrease by 8.1% from 1990 to 2000.
- The Morehead City Township, which includes Atlantic Beach, is the fastest growing township in Carteret County.
- Most of the town’s population growth has been the result of in-migration.
- 2000 peak seasonal population was 27,431, 15.1 times the permanent year-round population.
- Atlantic Beach’s peak day population (day visitors and seasonal/permanent residents) is estimated at 45,000 in 2004.

- During the 1990s, Atlantic Beach’s median age increased rapidly from 31.3 to 48.7.
- Atlantic Beach’s permanent population ranks ahead of the state’s population in college degree achievement.
- Atlantic Beach has a very small minority population.

## 2. Housing

### a. Housing Occupancy and Tenure

The dwelling units within Atlantic Beach are predominantly comprised of vacant units. Based on the 2000 US Census, 79.7% of all housing units within Atlantic Beach are vacant, and 20.3% are occupied. This statistic stresses how much Atlantic Beach relies on vacationers and citizens who use these units as a second home. Additionally, 89.7% of the vacant homes are considered to be for seasonal, recreational, or occasional use. For occupied housing units, the average monthly housing cost for Atlantic Beach residents is \$1,000 dollars. Table 7 below provides a summary of housing occupancy and tenure for Atlantic Beach and Carteret County.

Table 7: Town of Atlantic Beach and Carteret County  
Housing Occupancy and Tenure, 1990 and 2000

	Town of Atlantic Beach				Carteret Co.
	1990		2000		2000
	Total	% of Total	Total	% of Total	% of Total
Total Housing Units	4,599		4,744		
Vacant:	3,664	79.7%	3,756	79.2%	38.6%
For rent*	259	7.1%	101	2.7%	5.0%
For sale only*	61	23.6%	38	1.0%	1.6%
Rented or sold, not occupied*	0	0.0%	61	1.6%	0.6%
For Seasonal, recreational or occasional use*	3,288	89.7%	3,490	92.9%	29.3%
For Migrant Workers*	0	0.0%	2	0.1%	0.0%
Other vacant*	56	1.5%	64	1.7%	2.0%
Occupied:	935	20.3%	988	20.8%	61.4%
Owner-Occupied**	574	61.4%	638	64.6%	45.6%
Renter-Occupied**	361	38.6%	350	35.6%	15.8%
Mean Monthly Housing Cost:***			\$1,000		
With a Mortgage			220		
Without a Mortgage			151		

\*Indicates breakdown of vacant household types.

\*\*Indicates breakdown of occupied household types.

\*\*\*These figures represent owner occupied units in Atlantic Beach only for the year 2000

Source: US Census Bureau.

b. *Structure Age*

Since 1970, Atlantic Beach has experienced rapid housing growth. Approximately 74% of the town's housing stock has been constructed since 1970. The two tables below outline residential construction activity dating to the early 1900s. Table 8 provides a breakdown of years housing units were constructed from 1900 to 1998, while Table 9 and Graph 3 is a comprehensive report of building permit activity from 1998 to September 2004. Demolition activity has also been included since 1998. Due to the fact that Atlantic Beach's appeal as a vacation destination was fully realized in the late 1960s, housing construction increased rapidly from 1970 to 1990, and has since slowed down due to the lack of undeveloped land. This trend can be primarily attributed to the lack of vacant land remaining subsequent to the housing boom that took place over the 30-year period from 1970 to 1990.

Table 8: Town of Atlantic Beach  
Housing Structure, 2000

Year	Number of Structures	% of Total
1995 to 1998	403	8.8%
1990 to 1994	381	8.3%
1980 to 1989	1,261	27.5%
1970 to 1979	1,285	28.0%
1960 to 1969	820	17.9%
1950 to 1959	307	6.7%
1940 to 1949	96	2.1%
1939 or earlier	33	0.7%
Total Structures	4,586	100.0%
Median Year Structure Built	1979	

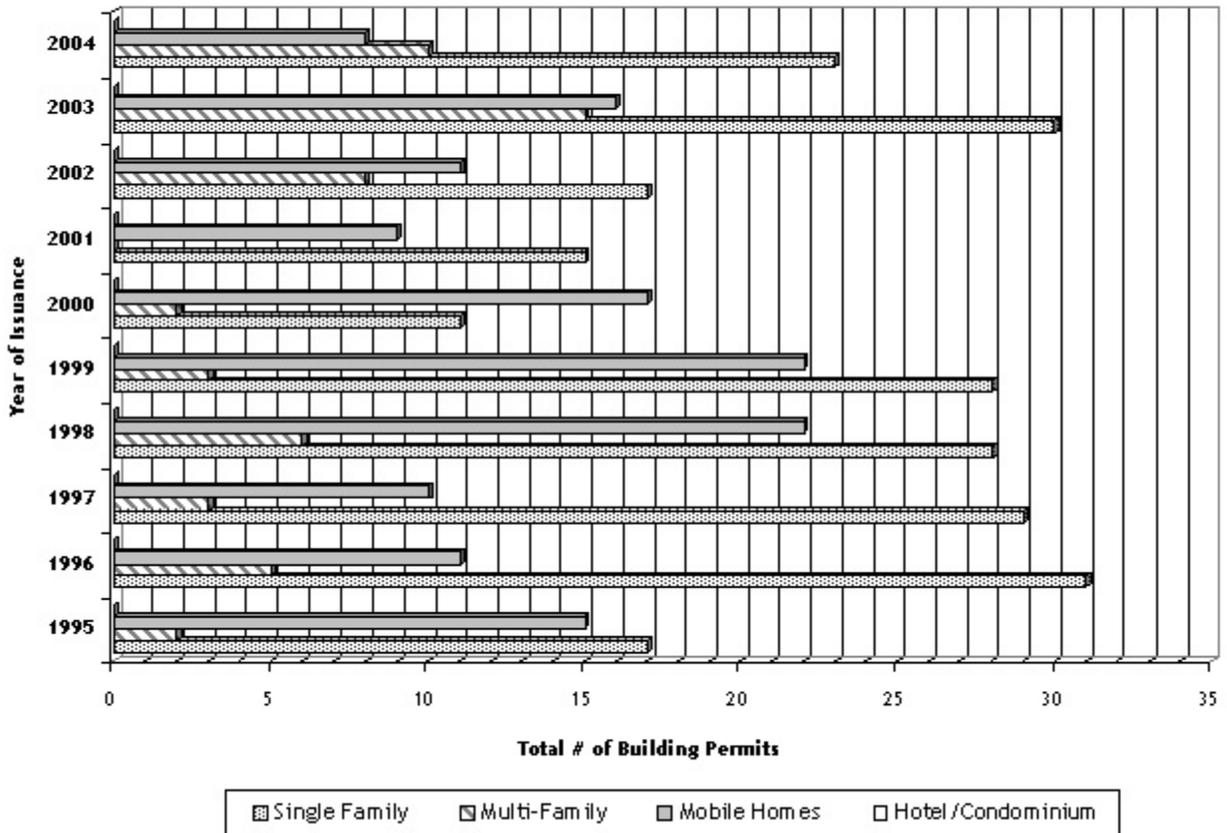
Source: US Census Bureau.

Table 9: Town of Atlantic Beach  
Building Permit Activity, 1999-2004

	1999	2000	2001	2002	2003	2004
<b>Construction</b>						
Single-family	28	11	15	17	30	23
Multi-family	3	2	0	8	15	10
Mobile homes	22	17	9	11	16	8
Hotel/condominium	0	0	0	0	0	0
<b>Total</b>	<b>53</b>	<b>30</b>	<b>24</b>	<b>36</b>	<b>61</b>	<b>41</b>
<b>Demolitions</b>						
Single-family	6	1	2	2	2	0
Multi-family	0	0	0	0	0	2
<b>Total</b>	<b>6</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>2</b>	<b>2</b>

Source: Town of Atlantic Beach.

Graph 3  
Town of Atlantic Beach  
Building Permit Activity



c. *Housing Conditions*

The housing stock within Atlantic Beach is in good condition, and compares favorably with Carteret County and North Carolina overall. Housing units within Atlantic Beach have an average of 4.7 rooms per unit, approximately 44% of all units have three plus bedrooms. This is significantly lower than the percentage for Carteret County and North Carolina overall. This is mainly due to the large number smaller condominium units within the Atlantic Beach. Table 10 provides a summary of housing conditions for Atlantic Beach, Carteret County, and North Carolina overall.

Table 10: Town of Atlantic Beach, Carteret County, and North Carolina Housing Conditions

	Atlantic Beach	Carteret County	North Carolina
Average Rooms Per Unit	4.7	5.3	5.5
Percent with no bedroom	0.5%	0.5%	1.1%
Percent with 3+ bedrooms	44.0%	62.6%	60.8%
Percent lacking complete kitchen facilities	0.3%	0.4%	1.1%
Percent lacking complete plumbing	0.3%	0.5%	1.1%
Percent occupied with telephones	96.8%	59.6%	86.2%

Source: US Census Bureau.

d. *Single and Multi-Family Units*

Two housing types make up the majority of the housing units within Atlantic Beach: single-family homes and mobile homes. There are several large mobile home parks located within the town’s jurisdiction that are predominantly utilized as vacation or second homes. Multi-family units make up 21.1% of the residential units in Atlantic Beach, while mobile homes comprise 27.9%. The composition of Atlantic Beach’s housing stock underscores the town’s reliance on seasonal residents and visitors.

Table 11: Town of Atlantic Beach, Carteret County, and North Carolina Units in Structure and Mobile Home Count, 2000

Units in Structure	Town of Atlantic Beach		Carteret County	North Carolina
	Total	% of Total	% of Total	% of Total
1-unit, detached	1,460	30.8%	55.7%	64.4%
1-unit, attached	776	16.4%	4.5%	3.0%
2 units	183	3.9%	3.7%	2.5%
3 or 4 units	270	5.7%	2.9%	3.2%
5 to 9 units	322	6.8%	2.5%	4.3%
10 to 19 units	57	1.2%	1.1%	3.2%

Table 11 (continued)

Units in Structure	Town of Atlantic Beach		Carteret County	North Carolina
	Total	% of Total	% of Total	% of Total
20 units or more	353	7.4%	3.9%	2.9%
Mobile home	1,323	27.9%	25.7%	16.4%
Boat, RV, van, etc.	0	0.0%	0.0%	0.2%
Total	4,744	100%	100.0%	100.0%

Source: US Census Bureau.

*e. Year Householder Moved Into Unit*

This demographic provides an interesting view of how the permanent population and owner occupants has increased over time. Table 12 provides a summary of the year that owner occupant householders moved into residential units within Atlantic Beach. Approximately ninety-one percent (90.7%) of all owner occupants have moved to Atlantic Beach since 1990.

Table 12: Town of Atlantic Beach  
Year Householder Moved Into Unit

Year	Total	% of total
Total Occupied Units	988	100.0%
1999 to March 2000	237	24.0%
1995 to 1998	292	29.6%
1990 to 1994	202	20.4%
1980 to 1989	165	16.7%
1970 to 1979	74	7.5%
Before 1970	18	1.8%
Median year householder moved into unit	1995	

Source: US Census Bureau.

*f. Housing Summary*

- There are 4,599 total dwelling units within Atlantic Beach. Of these, approximately 80% (3,664) are considered vacant and 20% (935) are occupied.
- There are 4,831 residential structures within Atlantic Beach as of 2004; 74% of these have been constructed since 1970. This total has been quantified using a combination of the 2000 US Census and building permit activity provided by the Town of Atlantic Beach.

- Residential structures within Atlantic Beach on average have 4.7 rooms per unit, and 44% have three or more bedrooms.
- Out of the 4,744 reported in the 2000 US Census, 30.8% are single-family homes and 27.9% are mobile homes.
- Approximately 90.7% of all owner occupant householders have moved into their homes on Atlantic Beach since the year 1990.

### 3. Employment and Economy

#### a. Introduction (General Economic Indicators)

The economy within Atlantic Beach relies almost entirely on the tourism industry. Due to this fact, a large number of the town’s permanent citizens are working in occupations not available within the town’s jurisdiction. Table 13 provides a summary of economic indicators for Atlantic Beach and Carteret County. The per capita income for residents of the town in 1999 was \$31,339, compared to \$21,260 for Carteret County. Additionally, the mean income for the town is also higher than that of the county. Unemployment is slightly higher for Atlantic Beach than the county; however, it should be noted that residents of the town generally do not rely on jobs within the beach community for work. Many residents work on the mainland in Beaufort, Morehead City, or other areas in Carteret County.

Table 13: Town of Atlantic Beach and Carteret County  
Summary of Economic Indicators

	Year	Atlantic Beach	Carteret County
Per Capita Income	1999	\$31,339	\$21,260
Mean Income	1999	\$55,707	\$49,509
Unemployment Rate	2000	3.2%	2.9%
% of population in labor force	2000	63.3%	60.0%
Poverty Rate	2000	7.3%	10.7%

Source: NC Department of Commerce and 2000 US Census.

#### b. Household Income

According to the 2000 US Census, the median income for Atlantic Beach’s citizens is \$38,312, compared to \$39,184 for North Carolina overall. The permanent population within Atlantic Beach is composed of many retirees, which

reduces the household income and may be responsible for the median income falling below that of the state. Approximately fifty-four percent (53.7%) of the town's citizens make \$35,000 or more annually. Table 14 provides a summary of household income for the permanent population of Atlantic Beach.

Table 14: Town of Atlantic Beach  
Household Income, 2000

			North Carolina
	Total	% of Total	% of Total
Less than \$10,000	62	6.2%	5.9%
\$10,000 to \$14,999	69	6.9%	4.6%
\$15,000 to \$24,999	160	16.1%	11.8%
\$25,000 to \$34,999	169	17.0%	13.1%
\$35,000 to \$49,999	168	16.9%	18.7%
\$50,000 to \$74,999	161	16.2%	22.9%
\$75,000 to \$99,999	93	9.4%	11.1%
\$100,000 to \$149,999	78	7.9%	7.6%
\$150,000 to \$199,999	4	0.4%	2.1%
\$200,000 or more	29	2.9%	2.2%
Total Families	993	100.0%	100.0%
Median Income	\$38,312		\$39,184

Source: 2000 US Census.

c. *Employment By Industry*

Table 15 provides a summary of employment by industry for Atlantic Beach. As stated above, many of the jobs listed in this table are not located within town, but are jobs that citizens commute to on the mainland. The largest employer of citizens living in Atlantic Beach is retail trade, comprising 17% of the total jobs. This can also be attributed to the fact that the town is a tourist destination, and that the economy centers around tourism. The second largest employer is the construction industry, which is a result of the rapid growth and development that is taking place in the region.

Table 15: Town of Atlantic Beach  
Employment By Industry, 2000

Industry	# Employed	% Employed
Agriculture, Forestry, Fishing, and Mining	7	0.7%
Construction	135	14.4%
Manufacturing	21	2.2%
Wholesale Trade	37	3.9%
Retail Trade	159	17.0%
Transportation, Warehousing, and Utilities	40	4.3%
Information	21	2.2%
Finance, Insurance, Real Estate, and Rental and Leasing	104	11.1%
Professional, Scientific, Management, Administrative, and Waste Management Services	74	7.9%
Education, Health, and Social Services	150	16.0%
Arts, Entertainment, Recreation, Accommodation, and Food Services	90	9.6%
Other Services (except Public Administration)	36	3.8%
Public Administration	64	6.8%
Total Persons Employed 16 Years and Over	938	100.0%

Source: US Census Bureau.

*d. Earnings By Industry*

The data provided for average weekly earnings by industry in Table 16 is for Carteret County, with a comparison to North Carolina overall. This data is not available at the municipal level, so the data for the county has been substituted. Government jobs in the county provide the highest average weekly wage for Carteret County residents at \$579.53 per week. Overall, the wages for North Carolina are significantly higher than Carteret County. The average weekly wage for North Carolina overall is \$204 dollars higher than that of Carteret County.

Table 16: Carteret County and North Carolina  
Earnings by Industry, 2000

Industry	Average Weekly Earnings	
	Carteret County	North Carolina
Agriculture	\$381.20	\$416.35
Construction	\$430.72	\$598.43
Finance/Insurance/Real Estate	\$437.14	\$907.31
Government	\$579.53	\$622.30
Manufacturing	\$412.41	\$716.21

Table 16 (continued)

Industry	Average Weekly Earnings	
	Carteret County	North Carolina
Retail Trade	\$265.09	\$336.64
Wholesale Trade	\$453.71	\$783.87
Service	\$390.79	\$580.23
Transportation/Communications/Public Utilities	\$552.30	\$775.01

Source: 2000 US Census.

*e. Employment Commuting Patterns*

Table 17 provides a summary of commuting time to work for the Atlantic Beach permanent population. This data legitimizes the claim that a majority of town residents have jobs on the mainland. Approximately fifty-three (53.3%) percent of town residents have a commuting time of 15 minutes or more. The mean travel time to work is 21.2 minutes for all residents.

Table 17: Town of Atlantic Beach  
Travel Times to Work

Travel Time in minutes	Total	% of Total
Less than five minutes	78	8.4%
5 to 9 minutes	180	19.3%
10 to 14 minutes	177	19.0%
15 to 19 minutes	182	19.5%
20 to 24 minutes	78	8.4%
25 to 29 minutes	29	3.1%
30 to 34 minutes	107	11.5%
35 to 39 minutes	15	1.6%
40 to 44 minutes	6	0.6%
45 to 59 minutes	12	1.3%
60 to 89 minutes	35	3.8%
90 minutes or more	33	3.5%
Total	932	100.0%
Total workers 16 years and over	982	
Mean travel time:	21.2	

Source: 2000 US Census.

f. *Non-Residential Construction Activity*

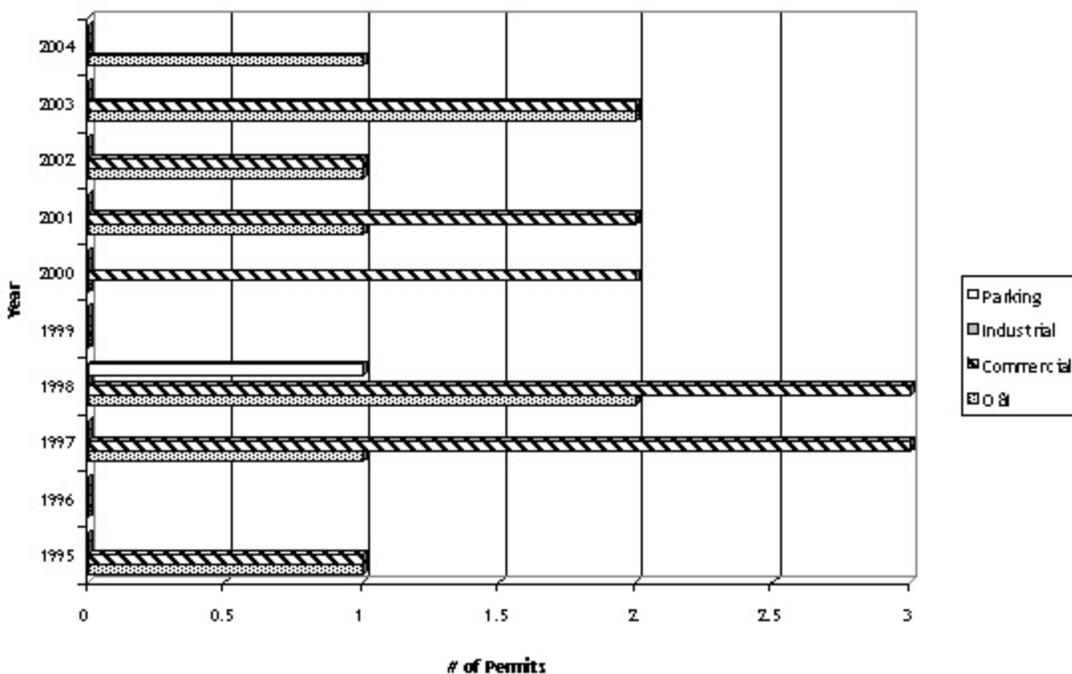
Table 18 and Graph 4 provide a summary of non-residential building permit activity dating back to 1995. This table expresses the growth rate of commercial operations within Atlantic Beach over this period. The largest number of permits (14) have been issued for commercial operations since 1995. Permits issued for commercial operations include businesses such as amusement, social, and recreational operations; service stations and repair garages; and stores and customer service operations. Office and institutional structures made up a majority of the remaining construction activity dating back to 1995.

Table 18: Town of Atlantic Beach  
Non-Residential Building Permit Activity

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Construction</b>										
O&I	1	0	1	2	0	0	1	1	2	1
Commercial	1	0	3	3	0	2	2	1	2	0
Industrial	0	0	0	0	0	0	0	0	0	0
Parking	0	0	0	1	0	0	0	0	0	0
Other	60	23	33	32	30	12	24	13	18	13
<b>Total</b>	<b>62</b>	<b>23</b>	<b>37</b>	<b>38</b>	<b>30</b>	<b>14</b>	<b>27</b>	<b>15</b>	<b>22</b>	<b>14</b>
<b>Demolitions</b>										
Other	5	4	1	2	0	0	3	2	11	8
<b>Total</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>2</b>	<b>11</b>	<b>8</b>

Source: Town of Atlantic Beach.

Graph 4: Town of Atlantic Beach  
Non Residential Building Permit Activity



*g. Industries*

The major industry within Atlantic Beach is tourism. Specific data regarding tourism is not available at the municipal level so county data collected from the NC Department of Commerce was used. Carteret County is ranked 12<sup>th</sup> in travel impact among the 100 North Carolina counties. In 2003, domestic tourism in Carteret County generated an economic impact of \$224.26 million, a 70% increase since 1990. State and local tax revenues from travel amounted to \$25.82 million creating a \$422 tax savings to county residents. Travel generated a \$49.91 million payroll. More than 3,310 jobs within the county are directly attributable to travel and tourism.

Carteret County consistently leads North Carolina in commercial seafood landings. A 1994 study by the North Carolina Division of Marine Fisheries found that commercial fishing in Carteret County generated an estimated \$46 million in sales of goods and services, and an additional \$24 million in value added, for a combined impact of approximately \$70 million. Nearly \$14 million in employee compensation was paid to nearly 5,000 workers employed full or part-time in the commercial seafood industry in 1994.

In addition, recreational saltwater fishing adds an additional \$130 million in sales of goods and services and employs over 600 people with an annual payroll exceeding \$12 million.

*h. Employment and Economy Summary*

- The per capita income for Atlantic Beach residents is \$31,339 and the mean income is \$55,707.
- The median household income for citizens of Atlantic Beach was \$38,312 according to the 2000 US Census, and 53.7% of the town's residents take in an annual income of \$35,000 or more.
- The largest employer of Atlantic Beach residents is the retail trade industry, accounting for seventeen percent (17%) of the total jobs reported in the census for persons employed age sixteen and over.
- Government jobs pay the highest average weekly wage to permanent residents of Atlantic Beach. This data is based on information for Carteret County overall, due to the fact that this information is not available at the municipal level.

- Approximately fifty-three percent of all Atlantic Beach residents have commuting time of fifteen minutes or more to work.
- The largest number of non-residential building permits have been granted for commercial construction dating back to 1990.
- Tourism is the major industry within Atlantic Beach.
- Domestic tourism generated an economic impact of \$224.26 million in 2003.
- Carteret County is ranked 12<sup>th</sup> in the state for travel impact.
- In Carteret County more than 3,310 jobs are directly attributable to travel and tourism.

#### 4. Population Projections

Table 19 provides Region P population projections through year 2030. These projections were prepared by the North Carolina Office of State Planning.

Table 19  
Region P Population Projections, 2000-2030

Location	Year-Round Population				Percentage Change			
	2000	2010	2020	2030	'00-'10	'10-'20	'20-'30	Overall '00-'30
Carteret	59,383	63,939	67,762	69,962	7.6%	5.9%	3.2%	17.8%
Craven	91,523	96,583	101,059	103,865	5.5%	4.6%	2.7%	13.4%
Duplin	40,063	58,044	68,899	80,764	44.8%	18.7%	17.2%	101.5%
Greene	18,974	22,558	26,332	30,130	18.8%	16.7%	14.4%	58.7%
Lenoir	59,636	59,951	60,794	61,143	0.5%	1.4%	5.7%	2.7%
Jones	10,381	10,661	11,276	11,744	2.7%	5.8%	4.2%	13.1%
Onslow	150,355	164,883	173,617	180,615	9.6%	5.3%	4.0%	20.1%
Pamlico	12,934	13,735	14,663	15,271	6.1%	6.7%	4.1%	18.0%
Wayne	113,329	119,977	128,554	136,495	5.8%	7.1%	6.1%	20.4%
Region P	556,578	610,331	652,956	689,989	9.7%	7.0%	5.7%	24.2%
North Carolina	8,049,313	9,491,372	10,943,973	12,467,232	17.9%	15.3%	13.9%	54.8%

Source: North Carolina Office of State Planning.

All counties in Region P are projected to have population growth through 2030. The rates of growth range from a low of 2.7% in Lenoir County to a high of 101.5% in Duplin County. Carteret County is expected to experience an overall rate of growth of 17.8% by 2030. It is expected that the majority of this growth will occur in the Morehead City Township and Emerald Isle.

Neither the North Carolina Office of State Planning nor the North Carolina State Demographic Office or any other State agency produces municipal population projections in North Carolina. Furthermore, population projections in a community with large seasonal populations are notoriously difficult to make with accuracy, due to the fact that most housing units frequently vary in tenure between seasonal occupancy, rental occupancy, and permanent occupancy.

Nonetheless, permanent and seasonal population projections for the Town through the year 2030 is essential in predicting the need for critical infrastructure and land for residential and commercial development.

This plan projects an average annual permanent population growth rate of 2.89% per year in the Town through the year 2030, starting from the 2000 US Census population of 1,781 permanent residents, resulting in a 2030 permanent population of 3,304. Table 20 reflects these projections. This projection is based on the following data and assumptions:

- Due to the very limited availability of currently undeveloped and developable raw land in the Town limits, the inability of the Town to annex more raw land, and numerous regulatory and other restraints, significantly increased overall density of residential redevelopment is highly unlikely. Therefore we have assumed that only another fifty (50) acres of land will be converted from its current use (e.g., vacant, commercial) to residential use and that this land and current residential areas will have the same effective density as is currently found in residential areas of the Town today (2005) - 7.41 units per acre on average. With these assumptions, the Town can only absorb another 370 units above its current 4,744 units. Therefore, we assume that approximately 42 units per year will be added in the Town (based on the 1995-2004 average from building permit data) through 2010 when the approximate limit of 5,114 residential units will be reached.
- Based on US Census figures for the year 2000, only 20.5% of residential units in the Town are permanently (i.e., more than six continuous months per year) occupied. Society-wide demographic trends related to the impending retirement of the “baby-boom” generation (born between 1946

and 1964) indicate that more and more currently “seasonal” housing units will be converted to “permanent” units as retirees flock to permanently settle in coastal Sunbelt locations such as Atlantic Beach. Therefore, the percentage of residential units in the Town that are permanently, rather than seasonally, occupied is projected to increase by 0.5 percentage points per year through 2030, resulting in 35.5% of the units in the Town being permanently occupied by 2030.

- The average number of persons per housing unit is anticipated to stay the same as in 2000 at 1.82 persons per household. The housing vacancy rate of housing units, currently at 5.70%, is anticipated to be reduced by .05% per year until it reaches 5.00% in 2015 and is assumed to stay constant at 5.00% through 2030. These assumptions are based on broad trends in the area towards older and smaller households and real estate averages regarding vacancy rates.
- It should be noted that the Town believes that US Census population enumerations chronically underestimate the number of permanent residents in the Town, due to the fact that many residents do have secondary residences and they may wish to retain legal residence in these secondary residences for a variety of reasons, despite the fact that they spend more than six months each year in Atlantic Beach.

Peak daily (i.e., overnight visitors plus daytime only visitors) seasonal population for 2000 is estimated at 32,218 and peak overnight seasonal population is estimated at 12,448 in 2000. The number of daytime only visitors is expected to grow by approximately 27.3% by 2030, while the number of overnight guests is expected to remain very close to static. Seasonal population projections through 2030 are depicted on Table 20 below. Seasonal population projections are based on the following data and assumptions:

- Based on traffic studies and a large body of anecdotal local evidence, Memorial Day weekend is assumed to be, in most years, the peak weekend for visitors to the Town.
- The total number of units available for seasonal use is assumed to be the total number of units minus permanent units minus vacant units. One-hundred percent occupancy of these designated “seasonal units” is assumed at the peak weekend.
- Two (2) guests are assumed per permanent residence during the peak weekend.

- Three (3) guests are assumed per seasonal residence during the peak weekend.
- Daytime-only visitors were estimated by examining the difference between average annual daily traffic (AADT) counts on Fort Macon Road near the Atlantic Beach Causeway and traffic counts on the peak weekend (Memorial Day, 2004). The AADT at this site was approximately 17,000 vehicles, while the peak traffic count was approximately 26,000 vehicles. Assuming every two vehicles counted reflected one vehicle (one incoming trip and one outgoing trip), and that each vehicle had an average of two (2) passengers, there were 9,000 daytime only visitors in 2000 at the peak weekend.
- The NC Office of State Planning is projecting a 24.2% increase in the population of “Region P” planning region from 2000 to 2030. This area includes Carteret, Craven, Duplin, Greene, Lenoir, Jones, Onslow, Pamlico, and Wayne counties. We have assumed that daytime-only visitors will increase at approximately the same rate as “Region P,” with some additional visitors (approximately 3%) coming from beyond this area. Therefore, we have assumed that average daytime visitors will increase by 0.81% per year for each year through 2030.

Table 20: Town of Atlantic Beach, NC  
Permanent, Seasonal, and Total Peak Population Projections, 2000 - 2030

Year	Permanent Population Estimate	% Pop. Growth Previous 5 Years	Peak Seasonal Overnight Visitors	Peak Daytime Only Visitors	Total Peak Day Population
2000	1,770	N/A	12,448	9,000	23,218
2005	2,074	17.16%	12,913	9,369	24,355
2010	2,373	14.45%	13,240	9,753	25,367
2015	2,606	9.80%	13,143	10,153	25,902
2020	2,839	8.93%	13,015	10,570	26,423
2025	3,071	8.20%	12,887	11,003	26,962
2030	3,304	7.58%	12,759	11,454	27,517

Source: Holland Consulting Planners, Inc.

B. NATURAL SYSTEMS ANALYSIS

1. **Mapping and Analysis of Natural Features**

The purpose of this section of the CAMA Land Use Plan Update is to describe, analyze, and map the natural features and environmental conditions currently found in the Town of Atlantic Beach and to assess their capabilities and limitations for development.

**What are Hydrological Units?**

The United States is divided and sub-divided into successively smaller hydrologic units which are classified into six levels. The first of these four are established by the U.S. Geological Survey and are as follows: regions, sub-regions, accounting units, and cataloging units. The hydrologic units are arranged within each other, from the smallest (cataloging units) to the largest (regions). Each hydrologic unit is identified by a unique hydrologic unit code (HUC) consisting of two to eight digits based on the four levels of classification in the hydrologic unit system.

The Natural Resources Conservation Service (NRCS) has further subdivided the aforementioned cataloging units into smaller units - the 11-digit HUC (watershed) and the 14-digit HUC (sub watershed or local watershed). This smallest level of analysis - the 14-digit HUC - is the best level of analysis since it allows for the assessment of localized conditions and impacts, particularly in regards to water quality.

As required by CAMA regulations at Chapter 15A of the North Carolina Administrative Code, a primary unit of analysis to be used is the 14-digit hydrological unit code (HUC) delineated by the Natural Resources Conservation Service (NRCS). The entire Town and planning jurisdiction of Atlantic Beach is located within HUC number 03020106030082, the boundaries of which are provided on Map 4. Please see the adjacent text box for a definition of the HUC and a description of its significance.

a. *Topography/Geology*

The Town of Atlantic Beach ranges in elevation from sea level at the coast to approximately 45 feet above sea level at some primary dune areas. The majority of the dune areas are between 10 and 20 feet above sea level. The highest elevation in a developed area is approximately 20 feet above sea level, just east of the Atlantic Beach Circle.

Whereas large areas of the Town have been filled for development, a majority of the Town is completely level and slopes range primarily from zero to four percent throughout Town. Within dune areas, slopes can range up to 30 percent, with the steepest slopes found in the Beaches-Newhan, Fripp fine sand, and Newhan fine sand complex soils (see Map 8, page 53).

MAP 4 - HYDROLOGIC CODE

The Town of Atlantic Beach (and all of Carteret County) is underlain by a thick wedge of sedimentary deposits of the Pleistocene era. This material, however, is overlain by approximately 80 to 120 feet of shell fragments, calcareous materials and loamy soils, with a thick layer of limestone below 120 feet. The upper reaches of this limestone layer are probably part of the Yorktown geological formation of the Pliocene era.

Two primarily limestone aquifers underlay Atlantic Beach and serve as the source of its water supply - the Yorktown and Castle Hayne aquifers, which will be discussed in further detail in Section 5(B)(1)(f) below.

The primary ramifications of the Town's topography and geology are:

- 1) The susceptibility of the Town's beaches to erosion due to the effects of alongshore sediment transport and other features of the coastal geomorphology of the Town. Without beach nourishment, the Town can expect continued erosion into the indefinite future. In 1998, the North Carolina Division of Coastal Management (DCM) estimated the natural (i.e., without beach nourishment) average erosion rate of the Town's beaches as 2 feet per year (Source: Long-Term Average Annual Shoreline Change study, DCM, 1998).
- 2) The flat, low-lying topography of the Town coupled with its location directly on the Atlantic Ocean exposes the Town to significant risks from hurricanes and other tropical/extra-tropical weather systems and the potential impacts of sea level rise or tsunamis. Hurricane and other weather system impacts on flooding will be discussed in detail in section 5(B)(1)(c) below.

Flooding resulting from sea level rise may be a long-term problem for the Town of Atlantic Beach. Over the last 100 years, the sea level has risen approximately one foot. Most experts agree that the rate of sea level rise will increase over the next 100 years. The most reliable current estimate of sea level rise over the next century is approximately 2 feet, with a maximum increase of as much as 4 to 7 feet. (Source: *The Probability of Sea Level Rise*. James G. Titus and Vijay Narayanan. 1995. Washington, D.C.: U.S. Environmental Protection Agency. 186 pp. EPA 230-R95-008).

An increase of that magnitude (i.e., 4 to 7 feet) would be a serious problem for Atlantic Beach. Approximately 50% or more of the Town could be inundated. The impact of sea level rise has serious adverse transportation and access implications for all of Bogue Banks. Many inland Carteret County roads could be inundated and impede access to Bogue Banks.

In addition to transportation, sea level rise could have serious implications for the construction of public utilities. The following excerpt from the Environmental Impact Statement, Town of Atlantic Beach Wastewater Treatment and Disposal provides an example of the potential effects of sea level rise on the Town's plans to construct a wastewater treatment plant and collection system:

"The present rate of rise in sea level has been reported to be approximately 23 cm/100 years (Orrin Pilkey, Duke University, Durham, North Carolina). Other estimates of higher rates of rise in sea level are not uncommon. Since the life of a typical treatment plant is anticipated to be approximately 20-25 years and the life of a typical collection system 40-50 years, the present rate of rise is not expected to significantly affect these components. Discharge is not anticipated to be significantly affected by the anticipated rise in sea level. Land application sites could be significantly affected in the long run by a rise in sea level since the number of days the water table would be at minimum depth below the land surface should be reduced, thereby reducing the number of days during which land application could be accomplished. The life of irrigation equipment is typically 10-15 years. Irrigation equipment is moveable and may be relocated if necessary. The rise in sea level will have far greater impacts on land use than on any of the three alternatives under consideration. Artificial methods of lowering the water table could be employed at land application sites if necessary due to problems encountered by a rise in sea level." (Note: 23 cm is approximately nine inches.)

The rate of sea level rise should be carefully monitored.

- 3) The aforementioned Castle Hayne aquifer, because of its geological composition, is susceptible to salt water intrusion. This condition is exacerbated by the expected sea level rise described above.

**What are the CCPCUA Water Withdrawal Rules?**

The Central Coastal Plain Capacity Use Area (CCPCUA) rules took effect on August 1, 2002, administered by the NC Division of Water Resources. The rules regulate water withdrawals within a 15-county area of east-central North Carolina, including the Town of Atlantic Beach.

**Who Must Comply with the Rules?**

All those within the region who withdraw more than 10,000 gallons per day of groundwater and/or surface water.

**What Does the New Rule Require?**

- \* Users of more than 10,000 gallons per day of groundwater and/or surface water must register and report their annual water use.
- \* Users of more than 100,000 gallons per day of groundwater must apply for a water use permit, and those permitted users of the Cretaceous Aquifer System in critical areas must reduce withdrawals in staged amounts over the next 16 years (at years 6, 11, and 16).
- \* Well pump intakes must be placed above the top of the aquifer from which water is withdrawn.
- \* Permitted users must monitor and report water levels and withdrawal amounts to the State.
- \* Owners of mines, sandpits, and quarries are required to apply for withdrawal permits and develop dewatering or depressurization monitoring plans. (Source: NC Rural

Salt water is present in the eastern portion of the Castle Hayne aquifer. The top of the salt water ranges from 250 to 800 feet below ground surface. There does not appear to be any impermeable strata separating the fresh and salt water. The US Marine Corps base at Camp Lejeune in Onslow County, the Town of Wrightsville Beach in New Hanover County, and the PCS Phosphate mining operations in Beaufort County have witnessed increases in chloride concentrations in groundwater which had been fresh water.

Because of the concerns regarding salt water intrusion and aquifer recharge rates, approximately 2,500 square miles of the Castle Hayne aquifer, including the portion underlying Carteret County, have been designated as a capacity use area by the NC Groundwater Section due primarily to large groundwater withdrawals by the PCS Phosphate mine near Aurora and to increased withdrawals associated with urban development. A capacity use area is defined as an area where the use of water resources threatens to exceed the replenishment ability to the extent that regulation may be required (see text box to the left).

According to DWR Hydrologist Nat Wilson, since PCS Phosphate shifted its mining operations and decreased pumping activities from approximately 68 MGD in 1990 to 35 MGD in 2003, the cone of depression centered on the mine has

lessened, showing that the aquifer is capable of recharging itself fairly quickly. Wilson said these developments indicate that it may be possible to manage the resources of the Castle Hayne aquifer by methods other than limiting withdrawals (Source: Water Resources Research Institute). In any case, salt water intrusion will continue to be a serious problem confronting the town, and must be closely monitored.

*b. Climate*

Owing to the proximity of the Atlantic Ocean, the climate of Atlantic Beach is mild throughout the year (see Table 21 below). The sea breezes along the coast during the hot summers and the mild winters make this an ideal climate. Cover crops and hardy vegetables can be grown during the winter, and outdoor work can be carried on. The ground very seldom freezes and then only a thin crust forms which thaws very quickly. The snowfall is very light and lasts only a short time.

The average annual rainfall is 51.26 inches. It is well distributed throughout the year.

Table 21: Climatic Conditions by Month at Atlantic Beach, NC

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Average temp. (°F)	46.3	47.9	54.1	61.3	69.4	76.4	80.5	79.6	75.4	65.8	57.3	49.6
High temperature (°F)	57.0	59.0	65.1	72.0	78.8	84.9	88.6	88.0	84.5	76.5	68.3	60.3
Low temperature (°F)	35.5	36.8	43.0	50.6	59.9	67.8	72.3	71.1	66.2	55.1	46.3	38.9
Precipitation (in)	5.4	4.0	4.3	2.9	4.7	4.0	5.9	7.5	6.5	4.4	4.1	4.5
Days with precip.	11	10	10	8	9	10	13	12	10	8	8	9
Wind speed (mph)	10.1	10.4	10.7	10.7	9.6	9.2	8.7	8.1	8.7	8.9	9.0	9.5
Morning humidity (%)	81	80	81	80	83	84	86	88	88	86	83	81
Afternoon humidity (%)	61	57	56	53	59	63	66	66	64	59	58	60
Sunshine %)	53	56	62	69	66	65	64	63	62	62	60	54
Days clear of clouds	10	9	10	11	8	7	6	7	9	12	11	10
Partly cloudy days	6	6	8	8	11	11	11	11	10	7	7	7
Cloudy days	15	13	14	11	12	12	13	12	12	11	11	14
Snowfall (in)	0.5	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6

Source: National Weather Service.

*c. Flood Zones*

Approximately 95% of Atlantic Beach lies within Special Flood Hazard Areas (SFHAs). A SFHA is defined as a land area with a greater than 1% chance per year of flooding and is also known as a “floodplain” (Source: Federal Emergency Management Agency or “FEMA”). SFHA are indicated on Flood Insurance Rate Maps (FIRMs), which are considered the most reliable and consistent source for delineating SFHAs and are the source used to determine whether or not the purchase of flood insurance is mandatory for developed properties with mortgages. According to FEMA, a home located within an SFHA has a 26% chance of suffering flood damage during the term of a 30-year mortgage.

SFHAs are broken into “A” zones and “V” zones. “A” zones are areas subject to risk of flooding by standing or relatively static flood waters, while “V” zones are areas subject to wave action. Shaded X is a supplemental flood hazard area in which there is a 0.2% per year chance of flooding, also known as the “500-year floodplain” (Source: FEMA). Flood hazard areas are depicted graphically on Map 5 and characterized in Table 22 below.

Table 22: Town of Atlantic Beach  
Land Area by SFHA

Flood Hazard Areas	Acres	% from Total
A zone	1,037.6	62.9%
V zone	195.9	11.9%
Shaded X	341.2	20.7%
X (Outside of SFHA)	75.9	4.6%
<b>TOTAL</b>	<b>1,650.6</b>	<b>100.0%</b>

\*Please note that road rights-of-way and water are included in this figure.  
Source: Holland Consulting Planners, Inc.

The greatest threat of flooding in the Town of Atlantic Beach is from storm surge. The majority of Atlantic Beach’s land area lies below ten feet above mean sea level and is potentially subject to storm surge related flooding. Storm surge is ocean overwash associated with hurricanes or other tropical or extra-tropical weather events.



**Oceanana Fishing Pier in Atlantic Beach during Hurricane Isabel, September 2003 (Source: Carteret County News-Times)**

Map 6 shows the general areas of Atlantic Beach which may be affected by hurricane-generated storm surge based on the SLOSH (Sea, Lake, and Overland Surges from Hurricanes) model developed by the National Oceanic and Atmospheric Administration (NOAA), which computes storm surge heights from tropical cyclones, such as hurricanes. The SLOSH model estimates the extent of storm surge inundation for “fast-moving” storms (forward velocity greater than 15 miles per hour) and for “slow-moving” storms (forward velocity less than 15 miles per hour).

MAP 5 - FLOOD HAZARD AREAS

MAP 6 - STORM SURGE INUNDATION

Table 23 below provides a tabular representation of the area in the Town inundated by storm surge flooding at different category events.

Table 23: Town of Atlantic Beach  
Storm Surge Inundation at Different Magnitude Storm Events based on SLOSH Model

<b>Fast Storm Inundation</b>	<b>Acres*</b>	<b>% of Total Town Land Area</b>
Category 1/2	1,102.9	66.8%
Category 3	1,241.4	75.2%
Category 4/5	1,409.0	85.4%

<b>Slow Storm Inundation</b>	<b>Acres*</b>	<b>% of Total Town Land Area</b>
Category 1/2	611.3	37.0%
Category 3	891.7	54.0%
Category 4/5	1,246.8	75.5%

\*Please note that road rights-of-way and water are included in these figures.  
Source: Holland Consulting Planners, Inc.

The various categories of storm surge areas and a description of expected damages are provided below:

Category 1. Winds of 74 to 95 miles per hour. Damage primarily to shrubbery, trees, foliage, and unanchored mobile homes. No appreciable wind damage to other structures. Some damage to poorly constructed signs. Storm surge possibly 4 to 5 feet above normal. Low-lying roads inundated, minor pier damage, some small craft in exposed anchorage torn from moorings.

Category 2. Winds of 96 to 110 miles per hour. Considerable damage to shrubbery and tree foliage; some trees blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs. Some damage to roofing materials of buildings; some window and door damage. No major wind damage to buildings. Storm surge possibly 6 to 8 feet above normal. Coastal roads and low-lying escape routes inland cut by rising water 2 to 4 hours before arrival of hurricane center. Considerable damage to piers. Marinas flooded. Small craft in unprotected anchorages torn from moorings. Evacuation of some shoreline residences and low-lying island areas required.

Category 3. Winds of 111 to 130 miles per hour. Foliage torn from trees; large trees blown down. Practically all poorly constructed signs blown down. Some damage to roofing materials of buildings; some window and door damage.

Some structural damage to small buildings. Mobile homes destroyed. Storm surge possibly 9 to 12 feet above normal. Serious flooding at coast and many smaller structures near coast destroyed; larger structures near coast damaged by battering waves and floating debris. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives.

Category 4. Winds of 131 to 155 miles per hour. Shrubs and trees blown down; all signs down. Extensive damage to roofing materials, windows, and doors. Complete failure of roofs on many small residences. Complete destruction of mobile homes. Storm surge possibly 13 to 18 feet above normal. Major damage to lower floors of structures near shore due to flooding and battering by waves and floating debris. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives. Major erosion of beaches.

Category 5. Winds greater than 155 miles per hour. Shrubs and trees blown down; considerable damage to roofs of buildings; all signs down. Very severe and extensive damage to windows and doors. Complete failure of roofs on many residences and industrial buildings. Extensive shattering of glass in windows and doors. Some complete building failures. Small buildings overturned or blown away. Complete destruction of mobile homes. Storm surge possibly greater than 18 feet above normal. Major damage to lower floors of all structures less than 15 feet above sea level. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives.

Please note that the above data regarding storm surge presume a “direct hit” by the eye of the storm at Atlantic Beach. Actual inundation areas, damages and impacts will likely be less severe than the model if the Town receives a “glancing blow” from a storm.

Atlantic Beach also experiences intermittent flooding from high intensity rainfall and storm water runoff. The soil associations shown on Map 8 provide an indication of the locations of high water table areas. The water table depths, flooding frequency, and permeability rates for various soil types are provided in section 5(B)(1)(e) below regarding soils.

d. *Man-Made Hazards/Restrictions*

The Town of Atlantic Beach does not have any sites that have a quantity of hazardous materials sufficient to require reporting to the State, the U.S. Environmental Protection Agency (USEPA), or the County Emergency Management Office.

The only man-made hazards located in Atlantic Beach are fuel storage tanks located at marinas, retail stores, and service stations that are engaged in selling fuel. Because the town relies on groundwater for its water supply, the underground fuel tanks could pose a threat. Table 24 below provides a list of facilities with underground storage tanks registered with the Groundwater Section of the North Carolina Division of Waste Management, Department of Environment and Natural Resources. Table 24 also indicates facilities with identified UST leaks and Map 7 provides a graphic depiction of the location of these sites.

Table 24: Town of Atlantic Beach  
Registered Underground Storage Tanks

UST Number	Facility Name	Facility Address	Known Petroleum Leak? (Y or N)
0-007527	Holiday Inn (Jim Dandy)	Salter Path Rd	Y
0-023551	Town of Atlantic Beach Complex	125 West Fort Macon Rd	Y
0-004613	Scotchman #57	303 Morehead Ave	Y
0-032592	White Sand Mini Mart	701 Salter Path Rd	Y
0-011143	Kwik Mart #9 (The Pantry 908)	605 East Fort Macon Rd	Y
0-026913	Scotchman #140	Fort Macon Rd	Y
0-000205	Former Walter's Exxon Station	122 West Fort Macon Rd	Y
0-023502	Scotchman #189	2510 West Fort Macon Rd	Y
0-007194	Fort Macon Marina	Fort Macon Rd	N
0-007370	USCG Base Ft. Macon	P.O. Box 237	N
0-011143	The Pantry 918	605 East Fort Macon Rd	N
0-007520	Crows Nest Yacht Club, Inc.	407 Atlantic Beach Causeway	N
0-004858	Sea Water Marina	400 Atlantic Beach Causeway	N
0-007512	Town of Indian Beach	Salter Path Rd	N
0-032592	Handy House 5	Fort Macon Rd	N

Table 24 (continued)

UST Number	Facility Name	Facility Address	Known Petroleum Leak? (Y or N)
0-036649	Island Cove	2500 West Fort Macon Rd	N
0-031783	Fort Macon State Park	2300 East Fort Macon Rd	N
0-031490	Pilot House/DBA Jungleland	Salter Path Rd	N
0-025125	Atlantic Beach Causeway	300 Atlantic Beach Causeway	N
0-033219	Triple S Partnership	1151 East Fort Macon Rd	N
0-032899	Morehead City-Pine Knoll Shores	Roosevelt Dr	N
0-021492	Atlantic Beach RMS	Cedar Ln	N

Source: Walter Plekan, Hydrogeologist, UST Section, DENR January, 2005.

North Carolina’s underground storage tank program is administered by the Division of Waste Management’s UST Section in the North Carolina Department of Environment and Natural Resources (DENR). The UST Section enforces UST regulations and manages funds used to perform cleanups of petroleum UST discharges or releases. The program was initiated in 1988 in response to growing reports of USTs leaking petroleum into soil and drinking water supplies. All tank removal and efforts to remove ground and groundwater contamination should be coordinated with the UST Section of DENR.

There was no offshore oil exploration or drilling underway in 2005. However, future exploration and/or drilling could pose a threat for the Atlantic Beach shoreline if it were to occur.

*e. Soils*

The most reliable information regarding soils in the Town of Atlantic Beach comes from the US Department of Agriculture (USDA) and National Cooperative Soil Survey (NCSS) soil survey completed in 1978. All data in this section is derived from this source unless otherwise noted.

MAP 7 - UST STORAGE TANKS

According to the aforementioned USDA/NCSS survey, there are 11 different soil associations located within Atlantic Beach. These associations are delineated on Map 8. Table 25 provides a tabular representation of the soil coverages depicted on Map 8, as well as the range of slopes found and the flooding prevalence in each soil association.

Table 25: Town of Atlantic Beach  
Prevalence of Soil Types and Range of Slopes Within Each Soil Type

Map Symbol	Soil Name/Range of Slopes/Flood Prevalence	Acres	% from Total
Bn	Beaches-Newhan complex, 0 to 30 percent slopes	79.2	6.0%
CH	Carteret sand, frequently flooded	58.1	4.4%
CL	Carteret sand, low, frequently flooded	224.1	16.9%
Co	Corolla fine sand	34.4	2.6%
Cu	Corolla-Urban land complex	181.6	13.7%
Du	Duckston fine sand, frequently flooded	103.4	7.8%
Fr	Fripp fine sand, 2 to 30 percent slopes	70.9	5.3%
Nc	Newhan fine sand, 2 to 30 percent slopes	145.5	11.0%
Nd	Newhan fine sand, dredged, 2 to 30 percent slopes	10.4	0.8%
Ne	Newhan-Corolla complex, 0 to 30 percent slopes	177.8	13.4%
Nh	Newhan-Urban land complex, 0 to 8 percent slopes	133.3	10.1%
w	Water	106.9	8.1%
TOTAL		1,325.6*	100.0%

\*Please note that road rights-of-way and water are excluded from consideration.  
Source: Soil Survey of Carteret County, North Carolina, USDA/NCSS, 1978.

Most soils within Atlantic Beach are poorly suited for development. The Beaches-Newhan complex, Carteret sand (both high and low), and Duckston fine sand associations, collectively accounting for 34.6% of the land area in the Town, are hydric soils. Hydric soils are those that formed under conditions of saturation, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part.

Although areas with hydric soils are not necessarily wetland areas, they almost always have consistently wet conditions that make the installation of septic systems difficult and costly, and are poorly suited for the construction of dwellings, streets, or roads due to their propensity to flood. Whereas the Town of Atlantic Beach relies exclusively on septic systems and package treatment plants for wastewater disposal, the prevalence of such a large amount of wet soils constitutes a significant limitation to the density and intensity of development.

MAP 8 - SOILS

All of the remaining non-hydric soils are very loamy soils that percolate quickly and thus risk contamination to the underlying water supply aquifers (see Table 26). Therefore, mound systems, package treatment systems and other similar systems are necessary for waste disposal, which raises the cost of development. Furthermore, if these systems are improperly designed, maintained or operated, it can result in groundwater contamination and diminution in water quality in nearby estuaries and sounds. The issue of wastewater disposal will be explored in more detail in Section V(1)(E)(7) of this plan.

Table 26: Town of Atlantic Beach  
Soil Types and Septic Tank Conditions

Map Symbol	Soil Name/Description	Septic Tank Conditions
Bn	Beaches-Newhan complex, 0 to 30 percent slopes	Severe: poor filter, high slopes
CH	Carteret sand, frequently flooded	Severe: flooding, ponding, poor filter
CL	Carteret sand, low, frequently flooded	Severe: flooding, ponding, poor filter
Co	Corolla fine sand	Severe: wetness, poor filter
Cu	Corolla-Urban land complex	Severe: wetness, poor filter
Du	Duckston fine sand, frequently flooded	Severe: flooding, ponding, poor filter
Fr	Fripp fine sand, 2 to 30 percent slopes	Severe: poor filter, slope
Nc	Newhan fine sand, 2 to 30 percent slopes	Severe: poor filter, slope
Nd	Newhan fine sand, dredged, 2 to 30 percent slopes	Severe: poor filter, slope
Ne	Newhan-Corolla complex, 0 to 30 percent slopes	Severe: poor filter
Nh	Newhan-Urban land complex, 0 to 8 percent slopes	Severe: poor filter, slope

Source: Soil Survey of Carteret County, North Carolina, USDA/NCSS, 1978.

*f. Water Supply*

As mentioned in Section 5(1)(A) above, the Town of Atlantic Beach relies on groundwater for its water supply (see text box for discussion of groundwater). Two primarily limestone aquifers underlay Atlantic Beach and serve as the source of its water supply - the Yorktown and Castle Hayne aquifers. Water supply wells have been constructed to penetrate both aquifers.

### **Groundwater - What Is it?**

The ground beneath our feet is not completely solid. It is more like a sponge with pores of many shapes and sizes. When rain falls, it soaks into the ground and moves throughout this pore space. Pore space may account for up to 50 percent of the total volume of some soils.

Near the soil surface, in the unsaturated zone, the pores contain a combination of air and water. Further down is the saturated zone where all of the pore space is filled with water. This water is called groundwater. The water table is the boundary between the saturated zone and the unsaturated zone. A well must reach down below the water table, into the saturated zone, to obtain groundwater.

### **Groundwater**

#### *Aquifers and Confining Beds*

The word aquifer comes from the Latin for “water bearing” and is used for any geologic formation that contains water in sufficient quantity and with sufficient mobility to be useful as a water source (for example, a layer of sand or gravel).

When water mobility is very limited (such as in a layer of clay or silt), the formation is called a confining bed or an aquitard.

#### *Recharge and Discharge*

Aquifer recharge is the movement of water from the surface down into an aquifer. In a recharge area, the net movement of water is downward. Recharge usually occurs in the upland areas between streams.

On the other hand, a discharge area is an area where the net movement of water is toward the surface. Groundwater discharge usually occurs in low areas close to streams and through the banks and beds of streams.

The Yorktown aquifer lies below the surficial aquifer in the northern half of the coastal plain. The Yorktown is thin toward the west, sometimes less than 20 feet. It thickens eastward, to as much as 300 feet in Dare County. The Yorktown is mostly fine sand, silty and clayey sand, and clay with shells and beds of shells throughout.

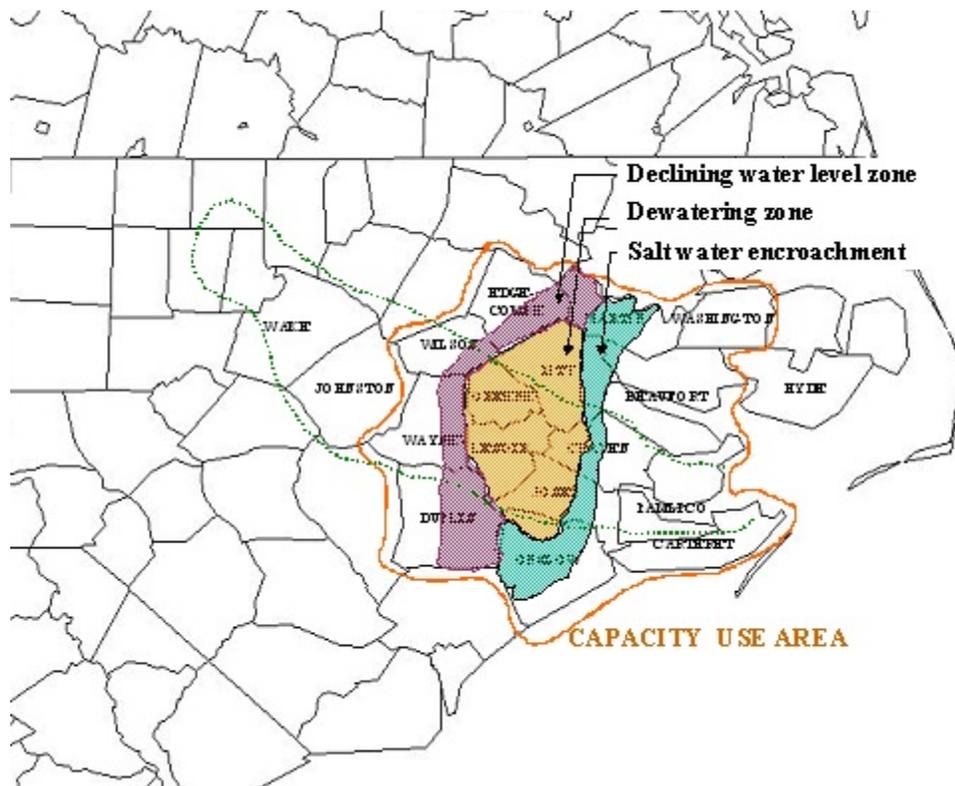
The Yorktown aquifer is an important source of water in the northeastern part of the State where deeper aquifers are too salty. It is not used as much in the western part of the State, since more productive sources are available.

The Castle Hayne aquifer, underlying the eastern half of the coastal plain, is the most productive aquifer in the state and the primary water source for the Town. It is primarily limestone and sand. The Castle Hayne aquifer is noted for its thickness (more than 300 feet in places) and the ease of water movement within it, both of which contribute to high well yields. It lies fairly close to the surface toward the south and west, deepening rapidly toward the east. Chloride content exceeds 250

parts per million east of a line between Gates and Carteret counties. Water in the Castle Hayne aquifer ranges from hard to very hard because of its limestone composition. Iron concentrations tend to be high near recharge areas but decrease as the water moves further through the limestone.

At Atlantic Beach, the Castle Hayne aquifer is subject to salt water intrusion. Because of the potential for salt water intrusion, approximately 2,500 square miles of the Castle Hayne aquifer, including the portion underlying Carteret County, have been designated as a capacity use area (CCPCUA, see page 42) by the NC Groundwater Section due to large groundwater in the Central Coastal Plain. As mentioned on page 42, a capacity use area is defined as an area where the use of water resources threatens to exceed the replenishment ability to the extent that regulation may be required. Therefore, wells are not permitted to pump more than 2.018 million gallons per day as permitted under CCPCUA.

Exacerbating the risk of salt water intrusion are declining water levels in the Castle Hayne aquifer. These declining water levels are due to dewatering activities attributable to industrial activities, particularly mining, and urbanization in areas that overlay the aquifer, particularly those areas west and north of Atlantic Beach such as Kinston, Goldsboro, Greenville and New Bern (see page 42 for additional information on this phenomenon). Water levels in the Cretaceous and Upper Aquifers, aquifers above and adjacent to the Castle Hayne, are declining between 1 and 9 feet per year on average (see graphic below).



Capacity Use Area and Areas of Declining Water Quantity and/or Quality in the Central Coastal Plain of North Carolina  
 Source: NC Division of Water Quality.

As the above graphic indicates, salt water encroachment, dewatering and declining water levels are not, at the present time, a significant concern to the Town of Atlantic Beach, but could become so over time without vigilant monitoring and regulation of groundwater supplies, particularly from the Castle Hayne aquifer. This is particularly true since the August, 2004, report from the NC Division of Water Quality entitled “Central Coastal Plain Capacity Use Area Status Report” encourages urbanizing communities in the Coastal Plain to consider developing “alternate aquifers,” especially the Castle Hayne, and reducing reliance on the Cretaceous and Upper (surficial) aquifers referenced above. Any such efforts should be carefully monitored and evaluated for their potential impact on the available water supply in the Town of Atlantic Beach.

Municipal water service in the Town will be addressed in Section V(1)(E)(6) of this Plan.

*g. Fragile Areas and Areas of Environmental Concern (AEC)*

CAMA establishes “Areas of Environmental Concern” (AECs) as the foundation of the Coastal Resources Commission's permitting program for coastal development. An AEC is an area of natural importance: It may be easily destroyed by erosion or flooding; or it may have environmental, social, economic, or aesthetic values that make it valuable.

The Coastal Resources Commission designates areas as AECs to protect them from uncontrolled development that may cause irreversible damage to property, public health or the environment, thereby diminishing their value to the entire state. Statewide, AECs cover almost all coastal waters and less than 3% of the land in the 20 coastal counties.

Fragile areas are those areas that are not explicitly defined as AECs but that could cause significant environmental damage or other diminution of quality of life if not managed. These include wetlands, natural heritage areas, areas containing endangered species, prime wildlife habitats, or maritime forests. These areas must be evaluated pursuant to State regulations at 15A NCAC 7H for the CAMA Land Use Planning process.

In this section, the Town will evaluate the following AECs and fragile areas in the Town of Atlantic Beach: estuarine waters and shorelines, public trust areas, coastal wetlands, ocean beaches and shorelines, areas of excessive erosion, natural resource fragile areas, and outstanding resource waters.

**i. Estuarine Waters and Estuarine Shorelines (AEC)**

An “estuary” can be defined as “a semi-enclosed coastal body of water which has a free connection to the open sea and within which sea water is measurably diluted with fresh water derived from land drainage.” Estuaries basically serve as transition zones between fresh and salt water and are protected from the full force of ocean wind and waves by barrier islands, mudflats, and/or sand. As illustrated in the text box below, estuaries provide significant environmental and economic benefits to the Town of Atlantic Beach.

**Why are Estuaries Important?**

The lands and waters of the estuarine system are home to fish nursery areas, spawning areas, shellfish beds, and other habitats essential to North Carolina's commercial and recreational fishing industries.

More than 90% of North Carolina's commercial and recreational seafood species (such as shrimp, flounder, and crabs) depend on the protective habitat and nutrients found in coastal wetlands and estuarine waters for much of their lives.

The stems, roots, and seeds of many coastal wetland plants provide food and nesting materials for waterfowl and other wildlife.

Marsh plants guard against erosion and flood damage: Their leaves and stems dissipate wave energy, and their root systems bind soil. The nutrients and decayed plant material the marsh plants produce also contribute to the productivity of the estuarine system.

Estuarine plants trap debris and excess nutrients and help regulate the flow of fresh water into the estuary, maintaining the system's balance.

Estuarine shorelines act as natural barriers to erosion and flooding. Certain soil formations and plant communities along estuarine shorelines also help slow erosion.

Natural buffers along the shoreline protect the water from excess sediment and pollutants, and they protect nearby developments from flooding and erosion.

Estuarine waters and public trust areas are important for tourism, because they support commercial and recreational fishing, boating, swimming, and other recreational activities.

All waters of Bogue Sound north of the Town of Atlantic Beach qualify as an estuarine water AEC under CAMA regulations (NC Division of Water Quality Stream Index #20-36-(8.5), White Oak Basin).

For regulatory purposes, the inland, or upstream, boundary of estuarine waters is the same line used to separate the jurisdictions of the Division of Marine Fisheries and the Wildlife Resources Commission. However, many of the fish and shellfish that spend parts of their lives in estuaries move between the "official" estuarine and inland waters.

Estuarine shorelines are land areas leeward of mean high tide that are immediately adjacent to or bordering estuarine waters. These areas support the ecological function of estuaries and are highly vulnerable to erosion caused by wind or water and to damage caused by development.

Under CAMA rules, all lands 75 feet leeward from the mean high tide are classified as estuarine shorelines and are subject to CAMA development regulations at 15A NCAC 7H.0205-.0208, as follows:

- The location, design and construction of your project must give highest priority to conserving the biological, economic and social values of coastal wetlands, estuarine waters and public trust areas, and protect public rights of navigation and recreation in public trust areas.
- Your project should be designed and located to cause the least possible damage to the productivity and integrity of:
  - coastal wetlands;
  - shellfish beds;
  - submerged grass beds;
  - spawning and nursery areas;
  - important nesting and wintering areas for waterfowl and other wildlife;
  - and
  - important natural barriers to erosion, such as marshes, cypress fringes, and clay soils.
- Your project must follow the air and water quality standards set by the NC Environmental Management Commission. Generally, development will not be permitted if it lowers water quality for any existing uses of the water (such as shellfishing, swimming or drinking). For more information, contact the NC Division of Air Quality or the Division of Water Quality.
- Your project must not significantly increase siltation or erosion, which can smother important habitats, block sunlight from aquatic plants, and choke fish and shellfish.
- Your project must not create a stagnant body of water, which can affect oxygen levels and accumulate sediments and pollutants that threaten fish and shellfish habitats and public health.
- You must time the construction of your project to have the least impact on the life cycles and migration patterns of fish, shellfish, waterfowl and other wildlife. The life cycles of animals that depend on the estuarine system are especially sensitive during certain times of the year. For more information, contact the Coastal Management office nearest you.
- Your project must not cause major or irreversible damage to valuable archaeological or historic resources. Archaeological resources, such as the remains of Native and Early American settlements, shipwrecks and Civil or Revolutionary War artifacts, provide valuable information about the history of the coastal region and its people. Information on the location of these sites is available from the NC Division of Archives and History in the Department of Cultural Resources.

- Your project must not reduce or prevent the use of, and public access to, estuarine waters and public trust lands and waters.
- Your project must comply with the local land use plan.

The waters of Bogue Sound adjacent to the Town are rated “Class SA” by the NC Division of Water Quality (DWQ). This means that they are high quality waters suitable for shellfishing and recreational use. This means that stormwater controls are required under CAMA. No domestic discharges are permitted in these waters.

The relationship between land use and water quality in estuarine and ocean waters near Atlantic Beach will be discussed in more detail in Section V(J) of this Plan.

#### **ii. Public Trust Areas**

The North Carolina Division of Coastal Management (DCM) defines “Public Trust Areas” as the coastal waters and submerged lands that every North Carolinian has the right to use for activities such as boating, swimming, or fishing. These areas often overlap with estuarine waters, but they also include many inland fishing waters. The following lands and waters are considered public trust areas:

- all waters of the Atlantic Ocean and the lands underneath, from the normal high water mark on shore to the state’s official boundary three miles offshore;
- all navigable natural water bodies and the lands underneath, to the normal high watermark on shore (a body of water is considered navigable if you can float a canoe in it). This does not include privately owned lakes where the public doesn’t have access rights;
- all water in artificially created water bodies that have significant public fishing resources and are accessible to the public from other waters; and
- all waters in artificially created water bodies where the public has acquired rights by prescription, custom, usage, dedication or any other means.

Although public trust areas must be delineated by on-site analysis, all submerged lands adjacent to Atlantic Beach along Bogue Sound and the Atlantic Ocean should be considered public trust areas.

Under CAMA regulations, all lands 30 feet leeward of public trust areas are subject to the restrictions specified in Section V(B)(g)(I) above for estuarine shoreline areas.

### iii. Coastal Wetlands

Coastal Resources Commission rules define “Coastal Wetlands” as any marsh in the 20 coastal counties (including Carteret County and Atlantic Beach) that regularly or occasionally floods by lunar or wind tides, and that includes one or more of the following 10 plant species:

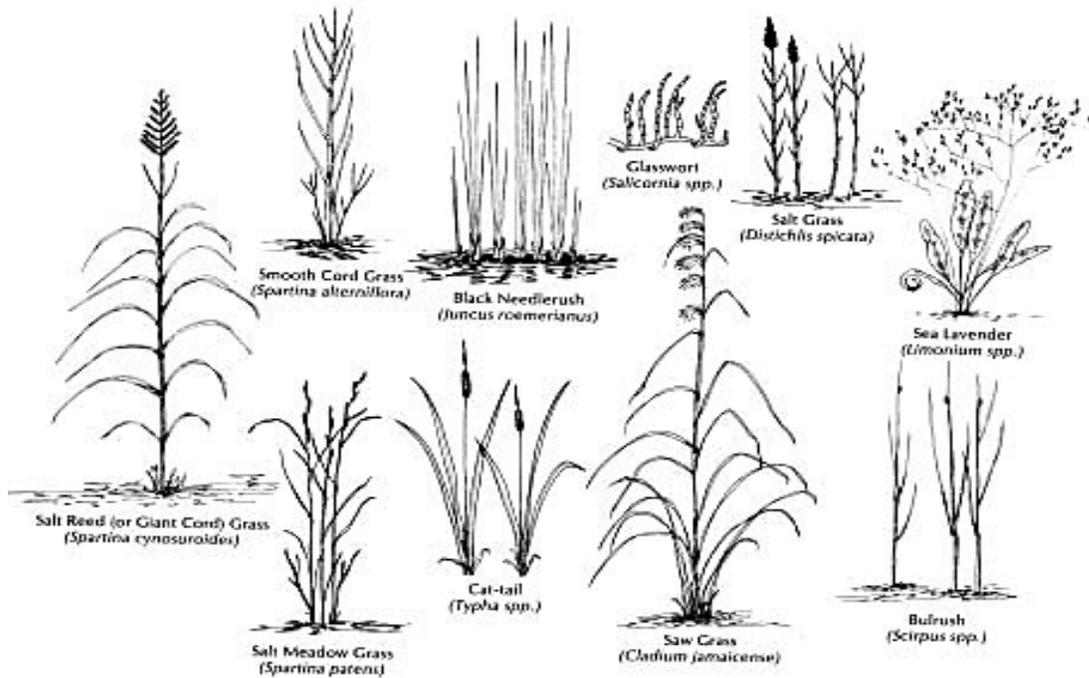
- *Spartina alterniflora*: Salt Marsh (Smooth) Cord Grass
- *Juncus roemerianus*: Black Needlerush
- *Salicornia spp.*: Glasswort
- *Distichlis spicata*: Salt (or Spike) Grass
- *Limonium spp.*: Sea Lavender
- *Scirpus spp.*: Bulrush
- *Cladium jamaicense*: Saw Grass
- *Typha spp.*: Cattail
- *Spartina patens*: Salt Meadow Grass
- *Spartina cynosuroides*: Salt Reed or Giant Cord Grass

Coastal wetlands provide significant environmental and economic benefits to Atlantic Beach. They protect against flooding, help maintain water quality, provide habitat to wildlife, and serve as part of the estuarine system described on page 57 of this plan.

In 2003, DCM classified and mapped coastal wetlands based on an analysis of several existing data sets, including aerial photographs and satellite images of coastal areas in North Carolina, including Atlantic Beach. Even though the presence of wetlands must be established by an on-site delineation and investigation of plants, DCM produced an excellent representation of wetlands in the Town, and throughout coastal North Carolina (see Map 9).

MAP 9 - WETLANDS

## COASTAL WETLAND PLANT SPECIES



### Coastal Wetland Plant Species in North Carolina

(Source: NCDWM, "CAMA Handbook for Development in Coastal North Carolina," 2002).

According to NCDWM's 2003 Coastal Wetlands Inventory, approximately 26.1% of the Town's land area, or 430.841 acres, are coastal wetlands (see Table 27).

Table 27: Town of Atlantic Beach  
Coastal Wetlands by Type and Aerial Extent

Wetlands	Acres	% of Total Town Acreage*
Cleared Estuarine Shrub/Scrub	6.417	0.4%
Cutover Estuarine Shrub/Scrub	4.881	0.3%
Cutover Maritime Forest	13.046	0.8%
Estuarine Shrub/Scrub	129.983	7.9%
Maritime Forest	34.059	2.1%
Salt/Brackish Marsh	242.455	14.7%
<b>TOTAL</b>	<b>430.841</b>	<b>26.1%</b>

\*Based on total town acreage of 1,650.6, which includes road rights-of-way and water.  
Source: NCDWM Wetlands Inventory, 2003.

The following provides the DCM descriptions of the various wetland areas found in the Town of Atlantic Beach:

*Salt/Brackish Marsh* - Any salt marsh or other marsh subject to regular or occasional flooding by tides, including wind tides (whether or not the tide waters reach the marshland areas through natural or artificial watercourses), as long as this flooding does not include hurricane or tropical storm waters. Coastal wetland plant species include: smooth cordgrass, black needlerush, glasswort, salt grass, sea lavender, salt marsh bullrush, saw grass, cattail, salt meadow cordgrass, and big cordgrass.

*Maritime Forest* - A forested community characterized by its stunted growth due to the stresses imposed by its proximity to salt spray from the ocean. Typical vegetation includes live oak, red maple, and swamp tupelo.

*Estuarine Shrub/Scrub* - Any shrub/scrub dominated community subject to occasional flooding by tides, including wind tides (whether or not the tide waters reach these areas through natural or artificial watercourses). Typical species include wax myrtle and eastern red cedar.

*Cutover Wetland* - Areas for which satellite imagery indicates a lack of vegetation. These areas are likely to still be wetlands; however, they have been recently cut over. Vegetation in these areas may be regenerating naturally, or the area may be in use for silvicultural activities. Note that marshes cannot be considered cutover.

*Cleared Wetland* - Areas of hydric soils for which satellite imagery indicates a lack of vegetation. These areas are likely to no longer be wetlands.

Areas identified as coastal wetlands are subject to CAMA regulations as specified in Section V(B)(g)(I) above for estuarine shoreline areas.

Freshwater swamps and inland, non-tidal wetlands are not in the CAMA permit jurisdiction, unless the CRC specifically designates them as AECs. However, these wetlands are protected by Section 404 of the federal Clean Water Act. An Army Corps of Engineers "Section 404" permit (USACE 404) may be required for projects taking place in these wetlands. Site-specific delineation of potential wetlands, under USACE wetland delineation guidelines, in order to determine whether a specific proposed

development project requires a USACE 404 permit. There are several different types of USACE 404 permits, which will be discussed in greater length in Section V(E) of this Plan. In general, however, the basic premise of the USACE 404 program is that no discharge of dredge or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded.

It should be noted that for purposes of this plan we have relied exclusively on State collected and analyzed data. The Town feels, however, that some areas not identified as Coastal Wetlands, such as the Hoop Hole Creek property on Fort Macon Road, should be considered for inclusion in the future and encourages the State to review and update its Coastal Wetlands inventory as soon as possible. This will help the Town, citizens, and developers know which areas will require special consideration in future development and which areas should be preserved and protected if possible.

#### **iv. Ocean Beaches/Shorelines and Areas of Excessive Erosion**

Ocean beaches and shorelines are lands consisting of unconsolidated soil materials (i.e., sand) that extend from the mean low water line landward to a point where either (a) the growth of vegetation occurs, or (b) a distinct change in slope or elevation alters the configuration of the land form, whichever is farther landward.

The entire southern boundary of the Town of Atlantic Beach - approximately 4.62 miles of shoreline - is an ocean beach. This entire area constitutes an Ocean Hazard AEC as defined by CAMA. The Ocean Hazard AEC covers North Carolina's beaches and any other oceanfront lands that are subject to long-term erosion and significant shoreline changes. The seaward boundary of this AEC is the mean low water line.

The landward limit of the AEC is measured from the first line of stable natural vegetation and is determined by adding:

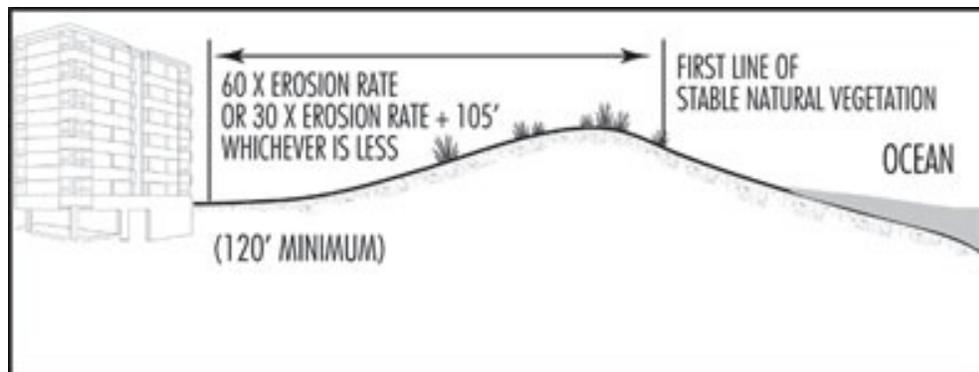
- a distance equal to 60 times the long-term, average annual erosion rate for that stretch of shoreline to
- the distance of erosion expected during a major storm.

Whereas the NC Coastal Resources Commission (CRC) has determined the average annual erosion rate in the Town of Atlantic Beach to be 2.0 feet per year, the approximate width of the AEC in Atlantic Beach is about 145 feet from the first line of stable, natural vegetation leeward of the shoreline. The specific location of the Ocean Hazard AEC must be determined by a CAMA permitting official.

The following requirements apply to all development in the Ocean Hazard AEC (15A NCAC 7H .0306):

- Your development must be located and designed to protect human lives and property from storms and erosion, to prevent permanent structures from encroaching on public beaches and reduce the public costs (such as disaster relief aid) that can result from poorly located development.
- Your development must incorporate all reasonable means and methods to avoid damage to the natural environment or public beach accessways. Reasonable means and methods include: limiting the scale of the project and the damage it causes; restoring a damaged site; or providing substitute resources to compensate for damage.
- No growth-inducing development paid for (in any part) by public funds will be permitted if it is likely to require more public funds for maintenance and continued use - unless the benefits of the project will outweigh the required public expenditures.
- Your project should be set as far back from the ocean as possible. At minimum, all buildings must be located behind the crest of the primary dune, the landward toe of the frontal dune, or the erosion setback line - whichever is the farthest from the first line of stable natural vegetation.
- Your project must not remove or relocate sands or vegetation from primary or frontal dunes. These dunes help protect structures from erosion, flooding and storm waves, and they help maintain North Carolina's barrier islands and beaches.
- If you want to move a building that is in an ocean hazard area, you will need a CAMA permit. Buildings relocated entirely with private funds should be relocated as far landward as possible. Buildings relocated with public funds must meet all AEC standards, including the setback requirement.
- Your project must meet all local minimum lot-size and setback requirements. Counties and towns often require a setback from roads, property lines, or dunes. For more information, contact your local building inspector.

- Your project must comply with the local CAMA land use plan. A land use plan contains a community's goals, management policies, and a map classifying land according to the types of development allowed.
- You must not place a mobile home within the high hazard flood area unless it is in a mobile home park that existed before June 1, 1979. Not only are mobile homes likely to be damaged by coastal storms, they are also likely to damage other buildings during storms.
- You may not interfere with or block the public's ability to reach, use, and enjoy the resources that belong to all the people of the state. These resources include the wet sand beaches and waters. No development is allowed seaward of the vegetation line, because the public has a right to use the sandy beach. Development also may not block established pathways to the beach.
- Your project must not cause major or irreversible damage to valuable archaeological or historic resources. Information on the location of these sites is available from the NC Division of Archives and History in the Department of Cultural Resources.
- The construction of publicly funded projects, such as sewers, water lines, roads, bridges and erosion control works, will be permitted only if they:
  - greatly benefit the public, nation or state;
  - don't promote additional development in ocean hazard AECs;
  - won't damage natural buffers to erosion, wave wash and flooding;
  - won't otherwise increase existing hazards.
- Meet all setback requirements for all development in the Ocean Hazard AEC.



Ocean Hazard AEC Setback Requirement Schematic (Source: NCDCM, "CAMA Handbook for Development in Coastal North Carolina," 2002)

**Why Should We Protect Ocean Beaches and Shorelines?**

At the edge of the ocean, ocean hazard AECs get the full force of any storm. Waves, wind and water can quickly change the shape of a shoreline, creating or filling inlets, flattening nearby dunes, eroding beaches and battering nearby structures. No oceanfront development can be absolutely safe from destructive natural forces, but development in ocean hazard areas can be carefully designed and located to minimize the risk to life and property, as well as to reduce the cost of relief aid.

Oceanfront beaches and dunes help protect buildings and environments behind them by absorbing the force of wind and waves, while the dense root networks of dune plants trap and anchor sand. Left uncontrolled, development can destroy these dunes and their vegetation, increasing the risk of damage to structures from erosion, flooding and waves.

The CRC updates long-term erosion rates about every five years, using aerial photographs to examine shoreline changes. General maps of erosion rates are available free from the Division of Coastal Management; detailed erosion rate maps are available for inspection at all Coastal Management field and local permitting offices (also see Map 10, page 70).

In the aforementioned CRC erosion rate study from 1998, the authors note that the 2.0 foot per year average erosion rate is “artificially low” due to the influence of beach renourishment in Atlantic Beach. In other words, without ongoing beach renourishment, the erosion rate of the ocean beach at Atlantic Beach could be much higher. The significance of this fact for the future economic well-being and safety of the Town of Atlantic Beach can hardly be understated.

In 1961, the outer channel of Beaufort Inlet was deepened to 35 feet from its natural depth of 15 to 18 feet. Twice since, the channel has been further deepened and lengthened. It is now maintained at a 45 foot depth. Sand that otherwise would have flowed westward along Bogue Banks fills in this channel. Each year the U.S. Army Corps of Engineers (USACE) removes 700,000 to 1,000,000 cubic yards of this sand and deposits it at its off-shore site on Brandt Island. Conservative estimates placed the total amount of sand dumped at this site to be at least 33 million cubic yards of sand.

The USACE has determined that the eastern end of Bogue Banks (i.e., Fort Macon State Park) and the ocean shoreline along Atlantic Beach is the least cost locale for disposal of the dredge sand from Beaufort Inlet and USACE has therefore used this sand to renourish Atlantic Beach approximately every 8 to 10 years since 1973.

This program operates at no direct cost to North Carolina or Town taxpayers. As of the writing of this Plan, a new renourishment project is underway. Since November 2004, USACE contractors have placed 2.2 million cubic yards of sand on about 2.25 miles of beach between the Triple S Pier and the west end of the Ocean Ridge subdivision under this program.

**v. Protected Lands and Significant Natural Heritage Areas**

“Protected Lands” are areas dedicated to conservation and open space based uses that are protected from development by regulation or by ownership by governments or non-profit organizations. NCDCM has identified these areas through the assistance of the NC Center for Geographic Information and Analysis (NCGIA).

In 1998, the North Carolina Coastal Federation (NCCF) used a \$2.52 million grant from the NC Clean Water Management Trust Fund (CWMTF) for the acquisition and preservation of a 35.85-acre site near Hoop Hole Creek. The maritime forest, wetlands, and saltwater marshes at this site are an effective riparian buffer between the urban development of Atlantic Beach and the clean waters and a healthy shellfish resource of Bogue Sound (see Map 10). The ownership of the property by NCCF ensures that the property will be dedicated as open space in perpetuity.

The Hoop Hole Creek property is the only area within the corporate limits of Atlantic Beach recognized as “protected,” and its 35.85 acres represent 2.2% of the Town’s total area.

Although not located within the Town’s corporate limits, Fort Macon State Park should be mentioned as a protected land. Located at the eastern end of Bogue Banks directly to the east of the Town limits, the 398-acre park is surrounded on three sides by water—the Atlantic Ocean, Beaufort Inlet, and Bogue Sound. This area of undisturbed natural beauty is the perfect place to explore salt marches and estuaries vital to the coastal ecosystem. The park is also home to a Civil War fort with a unique history.

The Park is owned by the State of North Carolina and managed by the NC Division of Parks and Recreation. The site harbors numerous flora and fauna and is particularly notable for its aquatic life. Sea urchins, sea stars, and coral may be spotted on or under rocks or other objects in the shallow water. Park flora includes live oak, yaupon, cedar and black locust.

MAP 10 - SNHA AND PROTECTED LANDS

“Significant Natural Heritage Areas” are areas containing ecologically significant natural communities or rare species. The North Carolina Natural Heritage Program of the NC Division of Parks and Recreation (NCDPR) identifies and helps facilitate the protection of these areas. DCM has identified these areas through the assistance of the NC Center for Geographic Information and Analysis (NCGIA).

A 14.97-acre portion of the aforementioned Hoop Hole Creek property contains a maritime forest that is considered a Significant Natural Heritage area by NCDPR, due to its rich estuarine habitat for aquatic life (see Map 10). This property represents 0.9% of the total land area in the Town.

**vii. Outstanding Resource Waters**

All surface waters in North Carolina are assigned a primary classification by the NC Division of Water Quality (DWQ). “Outstanding Resource Waters” (ORW) is a supplemental classification intended to protect unique and special waters having excellent water quality and being of exceptional state or national ecological or recreational significance. To qualify, waters must be rated “Excellent” by DWQ and have one of the following outstanding resource values:

- Outstanding fish habitat or fisheries,
- Unusually high level of waterbased recreation,
- Some special designation such as NC or National Wild/Scenic/Natural/Recreational River, National Wildlife Refuge, etc.,
- Important component of state or national park or forest, or
- Special ecological or scientific significance (rare or endangered species habitat, research or educational areas).

No new or expanded wastewater discharges are allowed although there are no restrictions on the types of discharges to these waters. There are also associated stormwater runoff, building density, best agricultural practices, and landfill siting controls enforced by the Division of Water Quality.

Atlantic Beach is not adjacent to any waters classified as ORW by the Division of Water Quality.

*h. Areas of Resource Potential*

**i. Regionally Significant Parks**

There are no parks of regional or statewide significance within the corporate limits of Atlantic Beach. There are, however, three regional beach access sites within the Town. Regional beach access sites are defined by the NC Division of Coastal Management as public beach access sites that are generally the largest of the access sites and that have clear signage, ample parking, and often have other facilities such as restrooms, showers and picnic tables.

Table 28: Town of Atlantic Beach  
Regional Beach Access Sites

Location	Parking Spaces Available/Other Amenities
NC Highway 58 at New Bern Avenue	50 spaces/Restroom and Showers
West Drive at Central Boulevard	303 spaces/No Restroom or Showers
West Drive at Atlantic Boulevard	64 spaces/No Restroom or Showers

Source: NC Division of Coastal Management.

Additional public beach access sites are discussed in Section V(D)(10) regarding recreational facilities in Town.

Fort Macon State Park should also be mentioned as a significant regional park. Even though it is not technically in the corporate limits of the Town, the park has approximately 1.4 million visitors per year and was determined to be one of the top 25 vacation destinations in North Carolina by the NC Department of Commerce in 2004. This environmentally and historically significant facility provides tremendous economic benefit to the Town by attracting these visitors.

**ii. Marinas and Mooring Fields**

“Marinas” are defined as any publicly or privately owned dock, basin, or wet boat storage facility constructed to accommodate more than ten boats and providing any of the following services: permanent or transient docking spaces, dry storage, fueling facilities, haulout facilities, and repair service. Not included in this definition are facilities that only allow boat access or temporary docking and that do not include the services provided by marinas specified above.

To receive a CAMA permit to construct a marina, a marina must meet the general CAMA rules for coastal wetlands, estuarine waters and public trust areas specified above as well as the specific rules below:

- Marinas should be built in non-wetland sites or in deep waters that do not require dredging. They must not disturb valuable shallow-water or wetland habitats, except for dredging necessary for access to high-ground sites. Marinas should be designed to protect the environment as much as possible. The following are four alternatives for siting marinas, ranked in order of Coastal Resources Commission preference:
  - 1) An upland site that requires no alteration of wetlands or other estuarine habitats and has adequate water circulation to prevent the accumulation of sediment and pollutants in boat basins and channels;
  - 2) An upland site that causes no significant damage to fisheries or wetlands and requires dredging for access only;
  - 3) An open water site that does not require dredging or wetland alteration and is not a primary nursery area; and
  - 4) An open water site that requires dredging in less productive habitat, but not deeper than any connecting channels.
- Marinas that require dredging may not be in primary nursery areas or in areas that require dredging a channel through nearby primary nursery areas to deeper waters. DCM will consider maintenance dredging in primary nursery areas for existing marinas on a case-by-case basis.
- Marinas that require dredging must provide acceptable disposal areas to accommodate future maintenance dredging.
- Marinas may not be enclosed within breakwaters that hinder the water circulation needed to maintain water quality. Breakwaters that obstruct or alter the circulation of estuarine waters can accumulate sediment and pollutants and accelerate erosion on nearby shorelines. This could threaten marine life and public health, and it requires more frequent maintenance dredging.
- Marinas serving residential developments and built in public trust waters must be limited to 27 square feet of public trust area for every one linear foot of adjacent shoreline. The square-footage limit shall not apply to fairways between parallel piers or any portion of the pier used only for access from land to the docking spaces.
- Marinas may not be located within areas where shellfish harvest for human consumption is a significant use, or in adjacent areas if the proposed marina will cause closure of the harvest areas. Construction or enlargement of a marina must not lead to the closure of an open shellfishing area.

- Marinas should minimize interference with public waters by using a mixture of dry storage areas, public launching facilities, and docking spaces.
- Marinas may not be built without written confirmation that the proposed location is not subject to a submerged lands lease or deed. (State law requires that marina owners receive an easement from the State Property Office.)
- Marina basins must be designed to promote flushing: basin and channel depths should gradually increase toward open water and must not be deeper than connecting waters. When possible, an opening shall be provided at opposite ends of the basin to promote flow-through circulation.
- Marinas must be designed to minimize adverse effects on boat traffic, federally maintained channels, and public rights to use and enjoy state waters.
- Marinas must meet all applicable requirements for stormwater management.
- Boat maintenance areas must be designed so that all scraping, sandblasting, and painting is over dry land and so that pollutants such as grease, oil, paint and sediments do not flush into estuarine waters. Grease and sediment traps can protect water quality at the marina and throughout the estuarine system.
- Marinas shall post a notice prohibiting the discharge of waste from boat toilets and explaining the availability of information on pumpout services. If dumped overboard, marina sewage can present a threat to marine life and public health.
- Marinas must comply with all other applicable standards for docks and piers, bulkheading, dredging, and spoil disposal.
- Marina replacement may be allowed if all rules are met to the maximum extent practicable.
- New marinas over public trust bottoms are subject to the North Carolina Environmental Policy Act and must undergo a NCEPA review.
- Upland development associated with marinas must comply with coastal shoreline rules, which require that structures with non-water-dependent uses be located at least 30 feet from the water, unless the structures are located in a designated urban waterfront.

A “freestanding mooring” is any means to attach a ship, boat or other water craft to a stationary underwater device, mooring buoy, buoyed anchor, or piling not associated with an existing or proposed pier, dock, or boathouse. When more than one freestanding mooring is used in the same general vicinity, it is known as a “mooring field”. CAMA has regulations for the safe siting and operation of moorings and mooring fields at 15A NCAC 7H.0208 (b) (10) or 7H.2200.

Because of its waterfront location, there are a number of marinas and mooring sites in the Town of Atlantic Beach. Public and private marina and mooring field sites are listed in Table 29 below. According to the NC Division of Shellfish Sanitation, there are approximately 1,019 marina slips in and near the Town.

Table 29: Town of Atlantic Beach  
Marina Sites

Name	# of Slips*
Spooners Creek Yacht Harbor	85
70 West Marina	8
Spooners Creek North	29
Miami Street Docks (formerly Daniels Marina)	35
Taylor Boat Works	15
Harbor Master Marina	31
Morehead City Docks/Geer Oil Docks	23
Dockside Marina	77
Leeward Harbor	33
Portside Marina	19
Russell Yachts	6
Radio Island Yacht and Boating Club	43
Radio Island Marina	32
Island Marina	88
Morehead Sports Marina	20
Crows Nest Marina	51
Fort Macon Marina	15
Anchorage Marina	125
8½ Marina	118
Triple S Marina (Market and Marina Village)	65
Seawater Marina	30
Causeway Marina	12
Mud Bucket/Divocean Docks	10
Capt. Stacy Fishing Center	8
Sand Spur Marina	12
Bluffs Condominium Marina/Docks	29
TOTAL	1,019

\*Estimate of Slips is Approximate.  
Source: Shannon Jenkins, NC Division of Shellfish Sanitation.

### **iii. Floating Homes or Structures**

A floating home or structure is any structure, not a boat, supported by means of floatation and designed to be used without a permanent foundation which is used for human habitation or commerce. A structure is considered a floating home or structure if it is inhabited or used for commercial purposes for more than 30 days in any one location. A boat may be deemed a floating structure if its means of propulsion have been removed or rendered inoperative and it contains at least 200 square feet of living area. There are several floating homes located on the west side of the Atlantic Beach Causeway. These homes pre-date the CAMA permitting process and would not be permitted under current Town and CAMA regulations.

### **iv. Channel Maintenance**

The Atlantic Intracoastal Waterway (AIWW) passes through Bogue Sound north of the Town of Atlantic Beach. The AIWW is a series of federally (i.e., USACE) maintained navigation channels that extend from Norfolk, VA to Miami, FL. For much of its length, the system consists of naturally deep estuaries, rivers, and sounds. These natural stretches are connected by man-made cuts through land areas and shallows, many of which require periodic dredging to maintain their depths. The authorized project depth of the AIWW is 12 ft (at low tide) from Norfolk, VA to Ft. Pierce, FL (Source: Atlantic Intracoastal Waterway Association).

Two channels striking south and west, respectively, from the AIWW at unlighted can buoy #3 serve the Atlantic Beach area. The easternmost of these channels is subject to shoaling; as of mid-2004, it carried 6-foot depths at low water.

Recent cutbacks in the USACE budget for channel maintenance of the AIWW threaten the safe navigability of the AIWW and should be carefully monitored.

There are numerous navigable channels maintained within Atlantic Beach with access to the AIWW. At low tide, navigation into and out of Atlantic Beach must go through these marked channels. The waters of Bogue Sound are generally very shallow even at high tide. Therefore, maintenance of these marked channels is essential for recreational and commercial boaters.

A general CAMA permit can be obtained from the regional CAMA office for maintenance dredging of channels, canals, boat basins, and ditches in estuarine waters, public trust areas, and estuarine shorelines, as long as the maintenance doesn't remove more than 1,000 cubic yards of material.

#### **NORTH CAROLINA WATER QUALITY BASICS**

##### *WHAT ARE SURFACE WATER CLASSIFICATIONS?*

Surface Water Classifications are designations applied to surface water bodies, such as streams, rivers and lakes, which define the best uses to be protected within these waters (for example swimming, fishing, drinking water supply) and carry with them an associated set of water quality standards to protect those uses. Surface water classifications are one tool that state and federal agencies use to manage and protect all streams, rivers, lakes, and other surface waters in North Carolina. Classifications and their associated protection rules may be designed to protect water quality, fish and wildlife, the free flowing nature of a stream or river, or other special characteristics.

##### *HOW DO THEY AFFECT ME?*

Before you buy property, plan a new development project, construct a new road or undertake other land use activities, you should check with local, state, and federal agencies about the assigned surface water classification for the waterbody on your property. Many of the newer classifications, especially those designed to protect drinking water supplies and certain high quality waters, have protection rules which regulate some land or disturbance other human activities.

##### *WHY DO THEY SOMETIMES OVERLAP?*

Many streams, rivers, and lakes may have several classifications applied to the same area. This is because surface waters are classified to protect different uses or special characteristics of the waterbody. For example, a stream or specific stream segment may be classified as Class WS-III Tr HQW by the NC Division of Water Quality (DWQ). This protects it as a drinking water supply (WS-III), as Trout Waters (Tr), and as High Quality Waters (HQW). The stream segments upstream or downstream may have different classifications based on other water uses or stream characteristics.

##### *STREAM'S CLASSIFICATION?*

DWQ classifies all surface waters. A waterbody's classification may change at the request of a local government or citizen. DWQ reviews each request for a reclassification and conducts an assessment of the waterbody to determine the appropriateness of the reclassification. DWQ also conducts periodic waterbody assessments which may result in a recommendation to reclassify the waterbody. In order for a waterbody to be reclassified it must proceed through the rule-making process.

#### **v. Marine Resources (Water Quality)**

In North Carolina, the water quality of each stream mile of water is evaluated and rated by the NC Division of Water Quality (DWQ) (see adjacent text box). DWQ categorizes Bogue Sound north of Atlantic Beach (DWQ Stream Index # 20-36-(8.5)) as "HQW" or "high quality water". HQW is a supplemental classification intended to protect waters with quality higher than state water quality standards. This is because the waters of Bogue Sound north of Atlantic Beach are also rated "SA" which means that the Sound has salty or brackish waters of excellent quality that contain active shellfish beds and other commercial fishing. "SA" waters are also suitable for all recreational uses, such as boating or swimming.

Even though all waters of Bogue Sound north of Atlantic Beach are designated SA, not all waters are currently supporting commercial shellfishing use. Two segments of Bogue Sound adjacent to the Atlantic Beach Causeway (i.e., approximately ½ mile to the east and to the west), as well as a smaller segment just to the west of Hoop Hole Creek are adjudged to be “not supporting” by DWQ for shellfishing and are closed for that purpose. According to the *Watershed Restoration Plan for the White Oak River Basin*, 2001, produced by DWQ, these areas are impaired primarily for fecal coliform contamination, generated primarily by poorly functioning septic tanks. The reader should refer to the 1997 White Oak River Basinwide Water Quality Management Plan and the 2001 Watershed Restoration Plan for the White Oak River Basin available online at <http://h2o.enr.state.nc.us/> for more detail on this important issue.

Because of the HQW and SA designations, several development restrictions exist, as follows:

- 1) Stormwater best management practices and lower density uses are required under CAMA for projects that may affect Bogue Sound (approximately 1 dwelling unit per acre unless specific stormwater controls allow higher density as approved by CAMA).
- 2) No domestic or industrial wastewater discharges are permitted into these waters.

The local CAMA permitting official should be consulted for specific requirements, as they may vary based on the specific development proposal.

The Atlantic Ocean south of Atlantic Beach (Stream Index # 99-(4)) is also rated by DWQ, and has been designated “SB” for water quality. This means that salt surface waters exist and are used for, and suitable for, recreation, including frequent or organized swimming. More limited stormwater controls are required under CAMA than the stormwater controls required under SA/HQW and there are no categorical restrictions on wastewater discharges.

**vi. Primary Nursery Areas, Anadromous Fish Spawning Areas, Submerged Aquatic Vegetation**

“Anadromous” fish are those that migrate up rivers (or into estuaries) from the sea to breed in fresh water. The North Carolina Marine

Fisheries Commission (MFC) defines anadromous fish spawning areas as those where evidence of spawning of anadromous fish has been documented by direct observation of spawning, capture of running ripe females, or capture of eggs or early larvae as established under NCAC 15A 31.0101 (20)C.

Anadromous fish nursery areas are those areas in the riverine and estuarine systems used by juvenile anadromous fish as established at NCAC 15A 31.0101 (20)D.

The primary fish nursery areas and anadromous fish spawning areas near the Town of Atlantic Beach are depicted on Map 11. The two primary nursing areas near the Town are across Bogue Sound within Broad Creek and Gales Creek. The only nearby spawning areas are within the White Oak River, Pettiford Creek, and the Newport River.

Under provisions of the North Carolina Fisheries Reform Act of 1997, the North Carolina Marine Fisheries Commission disallowed trawling in approximately 200,000 acres of submerged areas designated as Submerged Aquatic Vegetation (SAV). These vast grassbeds provide protection and also serve as nursery areas for fish, scallops, crabs, and shrimp.

None of this restricted SAV is within close proximity to Atlantic Beach.

## **2. Environmental Composite Map**

In 2002, the NC Coastal Resources Commission adopted revisions to the land use planning guidelines regulating CAMA plans [15A NCAC 7B]. One of the primary modifications to these guidelines was in the area of land suitability analysis. Essentially stated, the new guidelines ask local governments to do more analysis of the planning area's supply of land that is suited for development. This analysis should place more emphasis on how local governments address natural system constraints in land use planning.

This new requirement was borne of a recognition of the fact that all land use development is heavily influenced by attractive and repellent forces caused by the natural and built environments. For example, the presence of a public sewer line near a particular parcel of land will, all other things being equal, attract the dense development allowed by a sewer system. On the other hand, the presence of a wastewater treatment plant will discourage most types of development in immediately adjacent areas.

MAP 11 - WATER QUALITY/PRIMARY NURSERY AREAS

Section V(E) of this plan will present a land suitability analysis (LSA) based on a number of factors, including compatibility with existing land uses and development patterns, existing land use policies, and the availability of community facilities, as well as natural system constraints.

But first, pursuant to CAMA regulatory requirements, we have developed an Environmental Composite Map for the Town of Atlantic Beach that will be used in conjunction with the LSA to provide a guide to the Town for the most appropriate use of land. The Environmental Composite Map was popularized by Scottish landscape architect and urban planner Ian McHarg following his 1969 classic work, *Design with Nature*. McHarg argued that the natural landscape - its constraints and its positive features - should be the most significant factor considered when planning for and siting future land use development. In order to do this, McHarg posited, multi-layered maps must be developed that depicted the various natural features of land masses. Advances in Geographic Information System (GIS) technology in the 1990s and 2000s have made using McHarg's approach more feasible and precise.

The Environmental Composite Map (Map 12) breaks down land masses within the Town into three different categories based on natural features and environmental conditions. The categories utilized are as follows:

**Class I** - Land that contains only minimal hazards and limitations that can be addressed by commonly accepted land planning and development practices. Class I land will generally support the more intensive types of land uses and development.

**Class II** - Land that has hazards and limitations for development that can be addressed by restrictions on land uses, special site planning, or the provision of public services, such as water and sewer. Land in this class will generally support only the less intensive uses, such as low density residential, without significant investment in services.

**Class III** - Land that has serious hazards and limitations. Land in this class will generally support very low intensity uses, such as conservation and open space.

An overlay analysis was performed, breaking the Town into one-acre cells utilizing only map layers determined to be environmental factors. The layers used, and their assigned classes, are outlined in Table 30.

MAP 12 - ENVIRONMENTAL COMPOSITE MAP

Table 30: Town of Atlantic Beach  
Environmental Composite Map Layers

Layer	Class I	Class II	Class III
Coastal Wetlands			✓
Exceptional or Substantial Non-Coastal Wetlands			✓
Beneficial Non-Coastal Wetlands		✓	
Estuarine Waters			✓
Soils with Slight or Moderate Septic Limitations	✓		
Soils with Severe Septic Limitations			✓
Flood Zones		✓	
Storm Surge Areas		✓	
HQW/ORW Watersheds		✓	
Water Supply Watersheds		✓	
Significant Natural Heritage Areas		✓	
Protected Lands			✓

For a given cell, the computed value of the cell will be determined by the highest class theme that contains the cell. For example, if a cell is in a coastal wetland (Class III) and in a storm surge area (Class II) and intersects a soil with a slight or moderate septic limitation (Class I), the cell value will be Class III. In other words, if a cell does not meet the criteria for Class III, but qualifies as Class II, it has Class II for a value. If a cell does not qualify for either Class III or Class II, then it is Class I by default. This order enables the modeler to leave out themes that are not associated with Classes II or III to simplify the model (yielding the same results).

Table 31 provides a summary of the land use acreages by class for the Town.

Table 31: Town of Atlantic Beach  
Land Use Acreage by Class

Environmental Composite	Acres	% from Total
Class 1	256.4	19.3%
Class 2	621.6	46.9%
Class 3	447.9	33.8%
Total	1,325.9*	100.0%

\*Please note that road rights-of-way and water are excluded from consideration.  
Source: Holland Consulting Planners, Inc.

As Table 31 indicates, the majority (almost 68%) of the land area in the Town is located in either the most suitable or moderately suitable classifications.

Although the type of analysis presented in this section should serve as a valuable tool in determining the most appropriate use of land in the Town of Atlantic Beach, it has significant limitations that should be acknowledged, as follows:

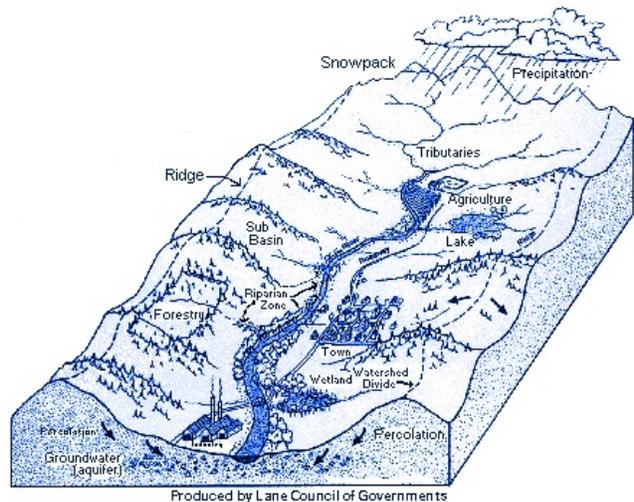
- The environmental composite map only allows land areas to be analyzed on one-acre blocks. This level of aggregation is too large to effectively assess each developable site within the Town for environmental conditions. For example, within the Town of Atlantic Beach, a 10,000 square foot parcel (approximately 1/4 acre) can be developed for four (4) residential units.
- The Environmental Composite Map, as the name suggests, only analyzes environmental factors when considering the appropriateness of land development. Environmental development constraints, while significant to consider, should always be considered in conjunction with the other forces that attract or repel development, such as the availability of community facilities and consumer demand for different types of land development. The LSA provided in Section V(E) of this plan provides this more comprehensive analysis of land suitability for development.

### 3. Water Quality

Water quality in and near the Town of Atlantic Beach is considered at many points in this Plan. However, because of the significant relationship between land use and water quality, a section focusing specifically on local and regional water quality is included here, prior to detailed discussions of existing and future land use. This Plan will primarily analyze water quality on the watershed and subbasin level.

A watershed is the area of land where all of the water that is under it or drains off of it goes into the same place. Geographer John Wesley Powell put it best when he said that a watershed is:

"that area of land, a bounded hydrologic system, within which all living things are inextricably linked by their common water course and where, as humans settled, simple logic demanded that they become part of a community." (Source: U.S. Environmental Protection Agency).



Pictorial Representation of a Watershed (Source: Lane County, Oregon, Council of Governments)

The Town of Atlantic Beach is located wholly in the White Oak River watershed and (significantly) at the outfall of the watershed (see Map 13).

Subbasins are geographic areas that represent part of a watershed, made up of a combination of drainage areas and/or distinct hydroponic features, all draining to the primary watershed. The Town of Atlantic Beach is located in the Newport River subbasin, also known by its USGS designation, subbasin number 03-05-03 (see Map 13).

In North Carolina, water quality is assessed primarily at the watershed or river basin (i.e., “basinwide”) level, due to the interconnectedness of watersheds described above. Basinwide water quality plans are prepared by the North Carolina Division of Water Quality (DWQ) for each of the seventeen major river basins in the State and updated at five-year intervals. The basinwide plan for the White Oak River Basin was developed by DWQ in February, 1997 and updated in November, 2001. This document will be referred to as “BWP” in this Plan.

The goals of the BWP are as follows:

- Identify water quality problems and restore full use to impaired waters;
- Identify and protect high value resource waters;
- Protect unimpaired waters while allowing for reasonable economic growth;
- Develop appropriate management strategies to protect and restore water quality;
- Assure equitable distribution of waste assimilative capacity for dischargers; and
- Improve public awareness and involvement in the management of the state’s surface waters.

The North Carolina Wetlands Restoration Program (NCWRP), in conjunction with the BWP, developed a Basinwide Wetlands and Riparian Restoration Plan (BWRRP) in 1998 to identify the need and opportunity for stream, riparian and buffer restoration in the White Oak Basin where water quality has been or likely could be degraded. This document will be referenced as the NCWRP.

*a. White Oak River Basin Watershed*

The White Oak River Basin is a 1,264-square mile watershed area that drains four separate river systems and their tributaries: the New River, the White Oak River, the Newport River, and the North River. It also drains the entirety of Core and Bogue Sounds, the latter being the location of Atlantic Beach (Source: NCWRP, page 3).

MAP 13 - RIVER BASINS/SUBBASINS

The basin contains much of Onslow and Carteret Counties and small portions of Craven and Jones Counties, and includes a total of 16 municipalities, including the larger and fast-growing City of Jacksonville, as well as the Towns of Beaufort, Morehead City, Emerald Isle, and Newport.

It also contains five subbasins, 417 miles of streams, over 130,000 acres of estuarine waters and 91 miles of Atlantic Coastline.

*b. Subbasin 03-05-03*

Subbasin 03-05-03 is comprised of central Carteret County from the Croatan National Forest to Beaufort and Beaufort Inlet and contains the Town of Atlantic Beach and all of Bogue Banks (Source: BWP, page 84 - see Map 13). Table 32 provides an overview of the population and land use present in the subbasin.

<u>Land and Water Area (square miles)</u>		<u>Land Cover (%)</u>	
Total area:	228	Forest/Wetland:	59
Land area:	168	Surface Water:	26
Water area:	60	Urban:	4
		Cultivated Crops:	6.5
		Pasture:	4
<u>Population Statistics</u>			
1990 Population:	11,404 persons		
Pop. Density:	68 persons per sq. mi.		
<u>Water Area</u>			
Stream Miles:	18		
Estuarine Acres:	34,723		
Coastal Miles:	25		
Shellfish Harvesting Acres:	34,146		

As Table 32 indicates, the subbasin is heavily forested and only contains one developed area north of Morehead City - the Town of Newport. Although there are indications of nutrient inputs in the upper Newport River, as well as elevated levels of fecal coliform bacteria, the water quality in the subbasin is generally good, with 11,368 of 34,146 acres of estuarine waters being classified by DWQ as Outstanding Resource Waters (ORW).

There are only six (6) facilities permitted to discharge wastewater into the subbasin under the National Pollutant Discharge Elimination System (NPDES) with a total permitted flow of approximately 2.2 million gallons per day (MGD) (Source: BWP, page 24).

c. *Registered Animal Operations in the White Oak River Basin*

The presence of animal operations is significant to water quality, since these operations typically produce large amounts of waste that can negatively affect water quality. This is particularly true in subbasin 03-05-03 where fecal coliform contamination has been a significant concern, due to the impact on shellfishing and recreation described above.

According to the BWP, two swine operations with a total of 3,375 animals and one poultry operation with a total of 48,000 animals operated within Subbasin 03-05-03. These three operations are located near Newport on the mainland of Carteret County. Although poultry operations remained constant between 1994 and 1998, swine operations increased by 44% in the subbasin, from 2,432 animals in 1994 to the 3,375 cited above.

d. *Population, Population Densities, and Growth Trends*

According to the BWP, the 1990 population of the basin was 146,240, or approximately 2.2% of the State's 1990 population. Over 75% of this total resides in Onslow County. However, the population of the White Oak River Basin is expected to surge by 26% to 188,403 by 2015. The current density of the basin is 141 persons per square mile.

For subbasin 03-05-03, the total estimated 1990 population was 11,404, an increase of approximately 66% over the estimated 1970 population of 6,858 (see Table 33). This number reflects only the permanent population and does not reflect the huge seasonal populations in Morehead City and the towns along Bogue Banks, including Atlantic Beach.

This population increase is reflected in the increase in urban land cover in the White Oak River Basin watershed from approximately 52 acres in 1982 (4% of land area) to 95 acres in 1997 (8% of land area) - an 81% increase (Source: BWP, page 12). The vast majority of this increase comes from the mainland, since Atlantic Beach is very nearly built out to its maximum urbanized land cover, although densities could increase in the future. During this same period, forested lands shrunk by 9.7% from 379 acres to 342 acres.

Table 33: Subbasin 03-05-03  
Population, Densities, and Land Area Summaries

SUBBASIN	POPULATION <sup>1</sup> (Number of Persons)			POPULATION DENSITY <sup>2</sup> (Persons/Square Mile)			LAND AND WATER AREAS <sup>3</sup>			
							Total Land and Water Area	Water Area	Land Area	
	1970	1980	1990	1970	1980	1990	(Acres)	(Sq. Mi.)	(Sq. Mi.)	(Sq. Mi.)
03-05-03	6,858	8,917	11,404	41	53	68	146,026	228	60	168

<sup>1</sup> Population estimated based on US Census data and percentage of census block that falls within the subbasin.

<sup>2</sup> Population density based on land area only. Large wetlands (swamps) not included in area used to calculate density.

<sup>3</sup> Information generated by the NC Center for Geographic Information Analysis.

Source: BWP, Page 16.

## C. ANALYSIS OF LAND USE AND DEVELOPMENT

### 1. Introduction

The Division of Coastal Management Land Use Plan Guidelines (15A NCAC 7B.0207) require that existing land uses and water uses be mapped. The land and water use maps in conjunction with the land suitability map, page 133 should be utilized as working documents and serve as a basis for the development of the future land use map(s). Specifically, this plan should address the following:

- Significant land use compatibility problems;
- Significant water use compatibility problems including those identified in any water supply plan appendix and those identified in the applicable Division of Environmental Management basinwide plan;
- Significant problems that have resulted from unplanned development and that have implications for future land use, water use, or water quality;
- An identification of areas experiencing or likely to experience changes in predominant land uses;
- Significant water quality conditions and the connection between land use and water quality.

## 2. Land Use in Relation to Water Quality

This section will serve to take a closer look at how land use in the Town of Atlantic Beach relates to water quality. This section has been compiled with information provided by the BWP.

It should be noted that the results of the monitoring efforts are not intended to provide precise conclusions about pollutant budgets for specific watersheds. Since the assessment methodology is geared toward general conclusions, it is important not to manipulate the data to support policy decisions beyond the accuracy of the data.

Two primary methods of water quality testing were performed in the Town of Atlantic Beach. The details of this methodology are described below so that the information on the results of this testing can be better understood. The methods utilized were Benthic Macroinvertebrate Monitoring (BMM) and the Ambient Monitoring System (AMS). DWQ also observes water bodies for the existence of algal blooms, which are an indication of poor water quality. Locations of BMM and AMS monitoring stations are provided on Map 11 (page 80).

Benthic macroinvertebrates are organisms, primarily aquatic insect larvae, which live in and on the bottoms of rivers and streams. The use of macroinvertebrate data has proven to be a reliable water quality monitoring tool because most macroinvertebrates are immobile and sensitive to subtle changes in water quality. Benthic communities also respond to, and show the effects of, a wide array of potential pollutant mixtures.

The Ambient Monitoring System (AMS) is a network of stream, lake, and estuarine (saltwater) water quality monitoring stations (about 420 statewide) strategically located for the collection of physical and chemical water quality data (or parameters). Water quality parameters are arranged by freshwater or saltwater water body classification and corresponding water quality standards.

Prolific growths of phytoplankton, often due to high concentrations of nutrients, sometimes result in “blooms” in which one or more species of alga may discolor the water or form visible mats on the water's surface. Blooms may be unsightly and deleterious to water quality causing fish kills, anoxia, and taste and odor problems.

The results of monitoring at the AMS and BMM stations depicted on Map 11, together with the water quality monitoring efforts at and near shellfish grounds by the North Carolina Division of Environmental Health/Shellfish Sanitation office (DEH SS) indicate that relatively dense land use with little buffering of the Sound, poorly controlled stormwater discharges, and the presence of many poorly functioning septic systems is having a negative effect on water quality.

As noted in Section (V)(B)(h)(v) above, the waters of Bogue Sound north of Atlantic Beach are classified as “SA” or suitable for commercial shellfish harvesting - a categorization limited to only the highest quality estuarine waters in the State. Unfortunately, there are approximately 1,344 acres of Bogue Sound closed to shellfish harvesting due to fecal coliform bacteria contamination, a component of human and animal fecal waste matter. These areas in Atlantic Beach are just to the east and west of the Atlantic Beach Causeway and all waters in the Bogue Sound between Intracoastal Waterway Channel Marker #14 and #19, including all creeks and canals from the mouth upstream. The Division of Marine Fisheries did open this latter area for shellfishing, except the aforementioned creeks and canals, on a temporary basis in November 2004, but DWQ has not modified the use classification of this area. These same areas are also restricted by DWQ for primary recreation, for the same reason.

As note above, this contamination is likely due to malfunctioning septic systems, discharges of waste from campgrounds and marinas, and stormwater discharges into Bogue Sound contaminated with fecal coliform from the Town of Atlantic Beach and from nearby urbanized areas such as Pine Knoll Shores and Morehead City (Source: BWP, page 87). According to the BWP, “bacterial water quality continues to decline along the north shore of Bogue Sound” due to rapid growth.

There is also a king mackerel consumption advisory in effect along the Atlantic Shoreline of the Town and the adjacent areas of Bogue Sound because of elevated mercury levels, although the source of this contamination is likely far away from Atlantic Beach (Source: BWP, page 58).

The BWP makes the following recommendations regarding water quality in subbasin 03-05-03 that are applicable to the Town of Atlantic Beach:

- Bogue Sound Reclassifications: The bacteriological water quality of Bogue Sound north of the Town continues to decline. Therefore, DWQ has indicated that they may recommend an expansion of the areas of Bogue Sound closed to shellfishing, depending on the frequency of temporary closures caused by spikes in recorded fecal coliform counts.
- Stormwater Pumping: DWQ and the Division of Environmental Health / Shellfish Sanitation office (DEH SS) are “monitoring” the Town’s discharge of pumped stormwater onto beaches and estuarine areas and this discharge’s impact on shellfish harvesting waters. This stormwater pumping can negatively impact shellfish harvesting and fish spawning areas.

The BWP also makes the following recommendations regarding land use planning to improve water quality in the White Oak River basin:

- Minimize number and width of residential streets
- Minimize size of parking areas
- Place sidewalks on only one side of residential streets
- Minimize culvert pipe and hardened stormwater conveyances
- Vegetate road right-of-ways to increase infiltration
- Plant and protect natural buffer zones along streams and tributaries

Other recommended items include:

- Controlling stormwater runoff
- Protecting wetland areas through land use plans

### **3. Existing Land Use**

#### *a. Introduction*

As was stated in the Town's 1993 CAMA Land Use Plan update, the Town of Atlantic Beach was originally chartered in 1937 and from that time until approximately 1960, the Town developed a small commercial core known as "The Circle" (West Drive/Central Drive/East Drive). Most development in the Town was commercial development near The Circle catering to the traffic from day visitors to the Town. Very little residential development existed and the vast majority of land in the current corporate limits was vacant.

Between approximately 1960 and 2000, numerous land use changes occurred that substantially defined the current form of the Town today, as follows:

- Substantial Bogue Sound water and wetland areas were bulkheaded and filled for development.
- NC Highway 58 (Ft. Macon Road) leading to the mainland bridge developed with continuous strip commercialization.
- "The Circle," was primarily developed with commercial development. During the late 1960s, significant deterioration began and continued through the 1990s. No significant redevelopment occurred.

- The town has developed with small overcrowded lots that do not have the capacity/size to adequately accommodate extensive septic tank usage.
- Development spread east and west of the original town core, leaving very little vacant land for development.

In order to characterize current (existing) land use and to help characterize land development trends since the late 1990s, existing land uses in the Town of Atlantic Beach were mapped by conducting a windshield survey of the Town. Windshield surveys were conducted by Holland Consulting Planners, Inc. (HCP), in October, 2004 and January, 2005. The results of this survey were transferred to a parcel base map provided to HCP by the Carteret County Tax Office. The referenced windshield survey was supplemented by an analysis of aerial photography and data by Town Planning Director Lee Smith performed in February, 2005, in conjunction with HCP.

The following categories of land use were used during this survey:

- Single-Family Residential includes all detached single-family homes on individual lots.
- Multi-Family residential structures are those with two or more dwelling units, including apartments, townhouses, and condominiums.
- The Mobile Home category includes single mobile homes on individual lots. This category does NOT include modular homes which are built to the NC State Building Code and are considered Single-Family Residential units.
- The Mobile Home Park category includes mobile homes located on a site owned by one individual where lots are rented. Recreational vehicle/travel trailer parks are also included here.
- The Commercial use category consists of retail sales and service establishment, including tourist-oriented recreational businesses. Motels are also included as commercial uses.
- Office/Institutional uses include (non-retail) offices with related areas (including governmental offices), and churches.
- Utilities includes major wastewater and water facilities, privately- and publicly-owned.

- Recreation includes areas exclusively used for recreation that are accessible to the public.
- Vacant land areas are those which currently are not in use.

Table 34 presents a summary of existing land uses and Map 14 depicts these land uses graphically.

Table 34: Town of Atlantic Beach  
Existing Land Use, February, 2005

Land Use Category	Parcels	Acres	% of Total Acres
Commercial	176	129.315	7.83%
Mobile Home	124	21.760	1.32%
Mobile Home Park	118	88.835	5.38%
Multi-Family	1,974	180.188	10.92%
Office and Institutional	8	7.128	0.43%
Recreation	5	1.315	0.08%
Single-Family Residential	1,589	351.800	21.31%
Utilities	10	79.286	4.81%
Vacant	426	466.321	28.25%
Right-of-way	N/A	178.322	10.81%
Water	N/A	146.310	8.86%
<b>TOTAL</b>	<b>4,430</b>	<b>1,650.580</b>	<b>100.00%</b>

Source: Holland Consulting Planners, Inc., and the Town of Atlantic Beach Planning Department.

The most significant land use changes since the 1993 CAMA Land Use Plan Update can be summarized as follows:

- All areas west of Cedar Lane to the Pine Knoll Shores corporate limits have been annexed into the Town of Atlantic Beach. All areas in the eastern part of Town to the Fort Macon State Park boundary have also been annexed. These annexations increased the land area of the Town (excluding right-of-way) by approximately 275 acres.
- The stock of vacant, developable land has continued its decade long decrease. Although 35.17% of land in the Town is considered “vacant”, the vast majority of this land is non-developable due to Federal, State, or Town development restrictions. Holland Consulting Planners estimates that only approximately 50 acres of land in Town is vacant and readily developable under current development regulations.

MAP 14 - EXISTING LAND USE

- Despite the lack of public sewerage, land values throughout the Town have increased dramatically in the last 10 years, especially in the last 2 to 3 years. This has had the effect of substantially increasing the value of new development and limiting the development of housing affordable to low and moderate income homeowners or renters.

For example, the tax valuation of the 28 single-family residences (including mobile homes) permitted in the year 2000 was approximately \$2.75 million, or \$98,288 per unit. The tax valuation of the 35 single-family residences permitted in the year 2004 was approximately \$7.40 million, or \$211,428 per unit.

- Although substantial redevelopment has not occurred as of this writing (February, 2005), the large increase in land values noted above indicates that the Town is poised to experience a significant increase in such development. This is particularly true near “The Circle” area, where a significant redevelopment project will be underway by mid-2005 (see discussion below).

Significant developments for each land use are presented below.

*b. Residential Land Use*

Atlantic Beach provides distinct residential variety. The residential areas range from moderate density, single-family, predominantly year-round residential areas to high density seasonal mobile home parks. The various types of residential areas are summarized as follows:

- Moderate density predominantly year-round residential areas: The two areas most notably fitting this description are the residential areas extending from NC 58 north to Shoreline, Forest Knoll, and Hoop Pole Creek Drives, and the residential areas constructed on fill north of Davis Boulevard. Overall, only about 20.8% of all housing units in the Town are occupied year-round.
- Moderate density seasonal single family residential development constructed on fill areas extending into Bogue Sound: These areas have been primarily developed within the last 30 years. However, the development of new units adjacent to Bogue Sounds has almost come to a halt due to Federal and State development regulations in the area.

- Moderate to high density, high value oceanfront properties: This development is scattered along the town's ocean shoreline, but is primarily concentrated along Ocean Ridge Drive, East and West Boardwalk, and Glenn Street.
- "Old Atlantic Beach" residential areas are generally situated between NC 58, West Fort Macon Road/oceanfront properties/Cedar Lane area/Wilson Avenue area. The dwelling units within these area vary greatly in size and condition. Many units are beginning to show age and signs of deterioration. The area has much of the character of old North Carolina Outer Banks beach communities. Most units within this area were constructed prior to 1960, with many being built in the 1940s and 1950s.
- Medium to high density multi-family condominium units are scattered throughout Atlantic Beach. Most of these units have been constructed within the last 25 years, with approximately 50% having been built since 1980. The architectural styles vary widely, resulting in much visual inconsistency in the town's landscape. The greatest concentrations of this development are located along NC 58 between the Lee Drive area and the NC/Ocean Ridge Drive intersection, and along the south side (ocean side) of NC 58 east of Commerce Way.
- High density mobile home parks comprise almost 7% of the town's total land area. The parks serve mainly seasonal owners or renters. The majority of the mobile homes are over ten years old and were not built to withstand hurricane force winds. If the town succeeds in installing a central sewer system, it is expected that increased land values may cause many of the mobile home parks to become candidates for redevelopment. The mobile home parks are located in the following areas and are delineated on the existing land use map: Mobile Drive, NC 58 on Hoop Pole Creek opposite Dunescrape Villas, Davis Boulevard, North Shore Drive I and II, Oceanna, and Triple Ess Marina. In total, there are currently 20 operating mobile home parks in the Town, with approximately 1,000 mobile home units.
- Mobile homes on single family lots are scattered throughout many areas of Atlantic Beach. However, there are concentrations of mobile homes situated on individual lots in the following areas: Money Island Drive Subdivision, Money Island Beach Subdivision, Coastal Mobile Estates, Beach Mobile Home Court, Knollwood Banks, and the Triple-Ess Shores Subdivision. These areas are characterized by small lots (generally 6,000 square feet or less) resulting in high density. Congestion is further

generated in the Money Island Beach Subdivision because the streets were constructed so as to not tie in with adjacent town streets. Therefore, access in and out of the development is primarily limited to one street. There are approximately 225 to 250 mobile homes on individual lots in the Town.

- In 2005, the approximate average residential densities were:

Single-Family	7 dwelling units per acre
Multi-Family	7 dwelling units per acre
Mobile Home Parks	9 dwelling units per acre
All Residential	8.5 dwelling units per acre

These densities are not expected to increase. If central sewer service becomes available, it is expected that some mobile home parks may be converted to other residential uses which should result in an overall decrease in residential density. It is unusual to have the same residential density for both single and multi-family development. This is primarily the result of small, high density single-family lots in the older sections of town.

*c. Commercial Land Use*

Little change occurred in the town's commercial land use since the Town's 1993 CAMA Land Use Plan Update.

The commercialization along the Causeway and NC Highway 58 exhibits some of the less desirable aspects of strip commercialization, including almost continuous points of vehicle ingress and egress, no service roads, extensive signage, small commercial lot development, and traffic congestion resulting from both local traffic and vehicles traveling through the area to reach points west of Atlantic Beach. However, the Causeway area is one of the trademarks of the Atlantic Beach landscape. Some improvements including improved traffic control, decreased signage, service roads, parking, landscaping, and the removal of overhead wiring would significantly improve the area.

Also significant is that the design of much of this strip commercialization, described above, leads to conflicts with single-family and lower-density multi-family (2 to 4 units) development, particularly north of NC 58.

Atlantic Beach's oldest and most recognizable commercial area is "The Circle." This area is delineated on Map 15. Since the 1960s, the "Circle" has been the victim of deteriorating buildings, traffic congestion, and a proliferation of bars and alcoholic beverage control problems. In the late 1980s and early 1990s, the town began a vigorous effort to redevelop the Circle area. An aggressive program of acquiring buildings which were severely deteriorated and/or the location of establishments with ABC licenses was begun. In 1992, the town acquired control of 4.1 acres of land within "The Circle."

In 2004, the Town established the Circle Development District ("CDD", see Map 15). The CDD is designed to re-establish and preserve the area as the primary civic, retail, office, institutional, cultural and entertainment center for the community. It intends to achieve this by providing a development location and atmosphere where building improvements, streetscape, lighting, landscaping, parking, and public improvements preserve "The Circle" as the premier destination for residents and visitors of Atlantic Beach. Building design, parking, transportation, and improvements in the District will focus and be designed for the comfort and enjoyment of the pedestrian while still allowing for a well balanced flow of automobile traffic. Infill opportunities with higher density development respecting the historic fabric of the area are envisioned. Mixed-use development in the form of multi-family dwelling units on the upper floors of buildings with commercial or non-residential uses on lower floors is strongly encouraged. Higher densities of use are visualized being focused around the key, central area commercial/institutional hub of "The Circle." Densities and building height and mass should decrease gradually toward the edges of the development district to provide transition between the lower density neighborhoods and the more intense uses appropriate for a community center. General public parking facilities are recommended and encouraged in addition to the creation of single use private parking lots (Source: Town of Atlantic Beach, Ordinance Number 04-09-01).

Development is scheduled to proceed in mid-2005. The development of this mixed-use CDD, if successful, could spur further attempts at mixed-use development, where appropriate.

Since 1993, the town's motel/hotel usage has changed very little. Old motels and hotels continue to be located along the Causeway and NC 58.

MAP 15 - "THE CIRCLE"

*d. Other Land Uses*

Almost 80 acres, or approximately 6% of the Town's area, are devoted to public water utility (e.g., well and tank sites) or large package treatment plants for wastewater operated by individual multi-family developments (e.g., condo associations). About 75% of this total is taken up by the aforementioned package plants. In the event of community sewerage being installed in the Town, this land could be redeveloped over time to a higher use.

Approximately 20 acres is currently occupied by Town buildings/offices and Town-owned parking lots, much of which is located in desirable locations near "The Circle" District. A Town-owned parking lot near "The Circle" area is a prominent example of valuable Town-owned property, along with the current Town Hall on Kinston Street.

As the Town encourages growth and redevelopment in "The Circle" district, pressures may develop to sell or redevelop numerous Town-owned properties. While such sales or redevelopment may benefit "The Circle" district or other areas of the Town, the desire to encourage redevelopment must be weighed against the impact of such redevelopment on the quality and cost of providing governmental services.

Only 1.3 acres of land is designated as recreational, primarily regional beach access sites owned by the Town and only 7 acres, or approximately 0.5% of the total Town land area was office or institutional. This was primarily churches and Town offices. Some office uses can be found within the larger commercial developments (e.g., Coral Bay and Atlantic Station Shopping Centers), but these uses are considered commercial for the purpose of the Existing Land Use map.

*e. Vacant Land*

As noted above, approximately 466 acres of the Town, or 35.17% of the land in the Town is considered vacant. It should be noted, however, that the vast majority of this "vacant" land should be considered undevelopable. Based on the best estimates of Holland Consulting Planners, Inc., only approximately 50 acres of land in the Town (3.25% of all land) is currently developable under current Federal, State, and local development regulations.

The reasons for this are primarily as follows:

- Some "vacant" land is permanently protected from development by deed restriction, such as the 35-acre Hoop Hole Creek site owned by the North Carolina Coastal Federation.

- The majority of the land depicted on Map 14 as “vacant” are areas that are undevelopable because of the fact that they are protected wetlands, many of which stay wet for large portions of the year. These are areas north of NC Highway 58 that abut Bogue Sound. Approximately 275 to 300 acres of the area depicted as vacant on the Town’s existing land use map would fall under this category.
- Approximately 50 acres of land are in private recreation areas (e.g., those associated with multi-family developments) and sideyards that are currently vacant and that could be developed, but that are highly unlikely to be developed in the five to seven year planning timeframe.

A more detailed discussion of development trends affecting vacant land will be provided in Section V(G) of this Plan.

D. ANALYSIS OF EXISTING COMMUNITY FACILITIES/SERVICES

1. **Transportation**

NC Highway 58 (East and West Fort Macon Road) and the Atlantic Beach Causeway (State Road 1182) are the town's only major thoroughfares. The town is connected to the mainland by the Atlantic Beach/Morehead City Bridge. These roadways are all owned and maintained by the North Carolina Department of Transportation (NCDOT).

The Causeway and Fort Macon Road are extremely congested during peak summer months. On Memorial Day, 2004, the NCDOT conducted a traffic count at the Sea Water Marina off the Atlantic Beach Causeway (NCDOT, *Bogue Banks Pedestrian and Bicycle Safety Review*, 2004). According to NCDOT, the design capacity of the road is 18,000 average daily traffic. NCDOT recorded 32,162 cars passing on Fort Macon Road at the Sea Water Marina on May 30, 2004.

Despite this fact, the NCDOT Transportation Improvement Plan for Carteret County (2004-2010) does not anticipate any NCDOT roadway improvements in the Town through the 2010 planning horizon. The only project anticipated is sidewalk installation along West Fort Macon Road from Ocean Ridge Drive to the corporate limits, to be completed in 2005 for a total cost of \$120,000.

Because of the seasonal nature of the Town’s population, traffic loads vary significantly between seasons. Map 16 depicts the average annual daily traffic counts (AADT) for major intersections in the Town for 2003, as provided by the NCDOT. Table 35 presents the volume of traffic (i.e., number of cars) at major thoroughfares in Town as recorded by the NCDOT on Memorial Day weekend (May 29-31) of 2004. Therefore, Table 35 should represent something close to “peak” or maximum traffic loads.

MAP 16 - AADT

Table 35. Town of Atlantic Beach  
 Motor Vehicle Counts, Memorial Day Weekend, 2004

Location of Traffic Count	Number of Vehicles Passing Location on Peak Day of Memorial Day Weekend, 2004
Coral Bay Club	17,303
Coral Bay Shopping Center	26,395
Durham Avenue	25,369
Raleigh Avenue	23,833
Beaufort Avenue/Center Drive	16,841
Bayview Boulevard	14,972
Oceanna Drive	15,346
8 ½ Marina and Condos	11,555
Henderson Boulevard	10,604
Sea Water Marina	32,162
Channel Marker Restaurant	31,635

Source: NCDOT, *Bogue Banks Pedestrian and Bicycle Safety Review*, 2004.

HCP is working with Aaron Everett 252/514-4716 and Tammy Raye 919/733-4705, both of NCDOT to determine whether or not a designated “Level of Service” exists for NCDOT roadways in the Town, and if so, what these are and what they are projected to be throughout the planning period.

The Streets Division of the town’s Public Works Department is primarily responsible for the maintenance of the Town’s 17.06 miles of streets. This maintenance includes paving, patching, storm drainage, and the installation or replacement of street signs. In 2004, the Town received Powell Bill funding in the amount of \$70,672. Many of the roads in the older residential sections are in need of repair and/or resurfacing.

## 2. Health Care

Carteret General Hospital (CGH) located at 3500 Arendell Street in Morehead City, about 2 miles from the Town, is the primary source of emergency and critical care for citizens of Atlantic Beach. Some relevant information regarding CGH follows:

- Fifty-six active staff physicians, 45 consulting physicians and 12 visiting/ courtesy physicians cover a comprehensive range of specialties.
- A Cancer Care Center provides medical oncology for patients who require chemotherapy and a full service radiation therapy center equipped with a state-of-the-art linear accelerator and simulator. The medical oncology

clinic is provided through collaboration between the East Carolina University School of Medicine Oncology department and Carteret General Hospital.

- Specialty outpatient clinics are offered at the hospital for neurology and autologous blood transfusions. Sophisticated technologies provided include nuclear medicine, CT scanning, mobile lithotripsy, laser surgery, and laparoscopic surgery.
- The hospital has 117 beds with an average of 87 inpatients each day and performs over 410 surgeries each month. In addition, over 4,000 outpatient tests or treatments are provided each month.
- Approximately 23,000 patients are treated in the Emergency Department and over 570 babies are delivered annually in the Brady Birthing Center.
- The AllWell program, a collaboration between Carteret General Hospital and the Carteret County Health Department, provides successful wellness programs for area employers. This division offers numerous community and industrial health and education programs.
- The Taylor Extended Care Facility provides skilled nursing services for residents who require long-term care. The facility accommodates 104 residents on Nelson's Bay.
- Carteret Home Health and Hospice of Carteret County are divisions of Carteret General Hospital. These mergers have allowed outstanding continuity of care and assistance for patients as they move from hospital to home.

In the Town limits, there is only one doctor's office, an urgent care clinic called Med Center One that is privately-owned and treats minor emergencies and offers primary general medical care. The facility is located on Atlantic Beach Causeway and offers an in-house X-ray service and a dispensing pharmacy for patients of record. Med Center One provides services on a walk-in basis.

Numerous primary care physicians can be found in Morehead City, Beaufort, Emerald Isle and Pine Knoll Shores. There is one dental practice in the Town at 501 Atlantic Beach Causeway run by Dr. J.E. Cameron and staffed with three associated dentists, and there are numerous dentists available in Morehead City and Beaufort.

### **3. Law Enforcement**

The Atlantic Beach Police Department (ABPD) is a full service law enforcement agency responsible for the enforcement of all laws and the investigation of any crimes within the town limits of Atlantic Beach. The Department is composed of 18 full-sworn police officers, 6 civilian support staff members, and 10 part-time sworn officer positions that are used during the peak season. The Police Department is divided into three sections: Administration, Patrol, and Support Services. Emergency response is available through 9-1-1.

The Department has 19 patrol vehicles, one utility trailer with lights, cones and other emergency equipment, a Polaris All-Terrain Vehicle (ATV), and a 21-foot Marine Patrol vehicle, primarily used for monitoring the Sound.

According to Captain Reeme of the Atlantic Beach Police Department, the Department also sponsors the Town's Community Watch program, focused on neighborhood crime reduction through citizen involvement with the police, and the National Night Out program, focused on educating the public on crime reduction through exhibits and entertainment on one night each year in the fall. The Department, through the Community Watch program, also works with business owners to raise funds for rewards and recognition of community leaders in crime reduction efforts. Finally, the Department sponsors the Citizen's Police Academy program that helps train and educate citizens on police procedures.

The ABPD also relies on assistance from the Carteret County Sheriff's Department in cases where outside assistance is necessary.

### **4. Fire/Emergency Medical Services (EMS)**

The Atlantic Beach Fire/EMS Department's mission is to "provide protection to life and property of the citizens of the Town of Atlantic Beach from adverse effects of fire, medical emergencies and dangerous conditions created by either man or nature."

The Career Staff consists of a Fire Chief, three Shift Captains, and nine additional shift personnel. Each shift consists of three personnel led by a Captain working 24 hours on and 48 hours off. This staff is supplemented by 15 volunteer firefighters. The Department maintains one ladder vehicle, one engine, two rescue vehicles, and a car for the Chief.

The Department also provides EMS and Rescue services and maintains two ambulances staffed with paramedics. Since 2002, the Department has expanded its rescue services to the community and has become one of the premiere fire departments

in the region through its specialization in numerous rescue disciplines. According to Captain Mike Simpson, all Department personnel are qualified as “North Carolina Rescue Technicians,” which is a certification that serves as a foundation of other rescue certifications and which means that all Department personnel are qualified in vehicle and machinery rescue and extrication as well as other basic rescue techniques. Additionally, the Department is certified in Surface Water (i.e., flood and swift water) Rescue and Ocean/Surf Rescue, one of only four fire departments in the State to earn this latter certification.

The Department was also certified by the North Carolina Fire and Rescue Commission at the Medium Rescue Level, which means that they have advanced training and equipment for all types of technical rescues. The Department is the only fire/rescue department in Carteret County to have obtained this level of certification. The Department also has staff certified in all manner of specialized rescue techniques, such as confined space rescue, rope rescue, and high angle rescue. In 2006, the Department plans to have a dive rescue team in place.

The Department maintains an automatic assistance agreement with the Town of Pine Knoll Shores, meaning the Department is dispatched to any significant fire in Pine Knoll Shores. The Pine Knoll Shores Fire Department provides reciprocal service. The Department also maintains a mutual aid agreement with the County that either party can utilize when local resources are insufficient for a given situation.

The Town’s ISO Fire rating is 4, down from 5 in 1996 (on a scale of 1 to 10, with 1 being the best), due to the improvement and installation of fire hydrants at the west end of Town.

## **5. Administration**

Atlantic Beach operates under a Council-Manager form of government with a full-time Town Manager and five governmental departments: Administration and Finance (6 employees), Public Works (15 employees), Planning and Inspections (3 employees), Police (21 employees - 16 Sworn Officers and 5 Support Personnel\*), and Fire/EMS (13 employees). On land use planning matters, the Town Council is supported by a Planning Board and Board of Adjustment.

\*NOTE: Differential from Law Enforcement section is based on full-time equivalent positions.

## 6. Water Supply

The Town of Atlantic Beach operates its own water supply system, drawn from groundwater of the Castle Hayne aquifer underlying the Town. The extent of the system is depicted on Map 17. The system is supplied by six deep wells, located at sites throughout the Town (see Map 17 - Existing Infrastructure/Community Facilities). Water storage is provided by two elevated and one below ground storage tanks which have a total storage capacity of 1,500,000 gallons.

The water supply is of good quality and the supply has been consistent. Treatment provides softened fluoridated water. Based on the Town's 2002 Local Water Supply Plan submitted to the North Carolina Division of Water Resources, the system can produce 1.74 million gallons in a 12-hour period. The system's water treatment capacity is 2,500 gallons per minute, or 2.5 million gallons per day.

In 2002, maximum daily use per day varied from a low of 482,000 gallons per day in February to 1,645,000 gallons per day in July, or approximately 65.8% of system capacity on the peak day of the year. Total water usage for 2002 was 239.3 million gallons, up only slightly from 1996 totals. Peak monthly usage of approximately 36.5 million gallons (July or August) has remained roughly constant for approximately 10 years, due to the fact that new water connections are increasingly rare due to near "build-out" under existing zoning and development demands. Table 36 provides average and maximum daily water usage by month for the year 2002.

Table 36. Town of Atlantic Beach  
Average Daily and Maximum Day Water Usage by Month, 2002

Month	Average Daily Use (in MGD)	Maximum Day Use (in MGD)
January	0.373	0.571
February	0.378	0.482
March	0.450	0.842
April	0.595	0.843
May	0.782	1.510
June	1.023	1.624
July	1.181	1.645
August	0.959	1.313
September	0.673	1.071
October	0.599	0.999
November	0.490	0.681
December	0.344	0.500

Source: Town of Atlantic Beach, 2002 Local Water Supply Plan.

In addition to the available water capacity discussed above, water pressure is sufficient to provide for adequate fire protection.

Map 17 - Water System/Community Facilities

## 7. Wastewater Disposal

The Town of Atlantic Beach does not have a central sewer system. Most residences and businesses rely on septic tank usage for sewage disposal. Because of the extremely high density of development, serious groundwater and estuarine water pollution has occurred as the result of septic tank failures. Both commercial and residential septic tanks in fill areas have had high failure rates.

The filled areas created by pumping dredge material over coastal wetlands account for approximately 50% of the town's land area. These septic tank failures pose a significant threat to adjacent estuarine waters. In addition to the fill areas, the older central portions of Atlantic Beach were developed with very high density and undersized septic systems with little or no room for repair or renovation.

The seriousness of the town's sewage disposal problem is summarized by the following excerpt from the Environmental Impact Statement, Town of Atlantic Beach Wastewater Treatment and Disposal.

"Septic tank systems located in low-lying areas with high water tables such as those areas immediately east and west of the Atlantic Beach Causeway in the center of Atlantic Beach represent a severe threat to water quality. Development in these areas has been constructed along man-made "finger canals." These areas were once marsh areas that were dredged and filled by man in order to create prime waterfront property. The technique of excavating the finger canals and placing the spoil material on top of the adjacent marsh has resulted in creating an environment unsuitable for septic tank systems. The compressed layer of organic "muck" and high groundwater conditions typical of these type developments have led to serious water quality problems in adjacent waterways. An EPA study (Waste Source and Water Quality Studies - Surf City, NC and Vicinity) of similar developments documented that during periods of rainfall septic tank leachate arises out of the ground and runs overland to the adjacent waterways. Dissolved oxygen problems were documented in the same study from the combination of organic loading and poor "flushing" qualities of the finger canals. More importantly, coliform bacteria problems were documented to have resulted in the closure of numerous acres of adjacent shellfishing waters. The waters adjacent to residential developments in Atlantic Beach have been closed to shellfishing. The existing septic tanks adjacent to these waters are very likely contributors to the closures."

Approximately 50% of the Town's residences are provided sewage treatment by a privately-operated sewage treatment plant, or "package" plants. Almost all of these units were located in condominium projects. Although these systems tend to operate better and are more closely regulated than smaller septic tanks used by one or two

families, many of these private systems have experienced failures. The failures have resulted in odor and raw sewage overflow problems, especially during periods where the ground has been saturated and the water table high. Table 37 provides a list of package plants in the Town.

Table 37. Town of Atlantic Beach  
Package Treatment Plants, 2005

<u>Treatment Plant Location</u>
Tar Landing Condominiums
Southwinds Condominiums
A Place at the Beach Condominiums
Seaspray Condominiums
Sands Villa Condominiums
8½ Marina Condominiums
Peppertree Resort
Sugar Loaf
Dunescape Villas
Island Beach & Racquet Club

Source: Town of Atlantic Beach Planning and Inspections Department.

In 2001, Infrastructure Management Group, Inc. (IMG), of Bethesda, Maryland, completed a privatization feasibility study for the development of a Town-wide sewerage (wastewater collection and treatment) system to be operated by a private vendor. This Plan looked at the economic and environmental feasibility of such a system and found it to be feasible on both accounts.

IMG completed a Design/Build/Own Action Plan for a Wastewater System that would have allowed them to assist the Town in taking proposals from private firms to design, build, and operate a Town-wide wastewater collection and treatment facility in the Town. The Town has opted not to address installation of a central sewer system in this manner. This will be discussed further in the Future Demands section of this plan.

## **8. Solid Waste Disposal**

Residential refuse collection and recycling service is provided by Waste Industries, a private contractor. Collection is provided once per week from November through March. Twice per week service is provided from April through October. Businesses are required to contract individually with private waste collectors. Condominium

developments and mobile home parks have the option of utilizing bulk containers. Once per week pick-up service is provided year-round for glass, steel, aluminum, paper, and plastic recyclables. Participation in the recycling program is voluntary.

Beginning in 1994, a regional landfill at Tuscarora, west of New Bern in Craven County, operated cooperatively by Carteret, Craven, and Pamlico counties through the Coastal Regional Solid Waste Management Authority (CRSWMA) replaced the Carteret County landfill in Newport. Waste disposal costs increased considerably upon opening of the Tuscarora facility. The Town must pay CRSWMA \$34.00 a ton for waste disposal at the Tuscarora facility, and is \$13.50 a month for residential customers.

CRSWMA also operates a transfer station at the site of the old Carteret County landfill in Newport for household hazardous waste, such as paint, used oil, and auto batteries.

## 9. Schools

Atlantic Beach is served by the Carteret County School System. Kindergarten through third grade students attend Morehead City Primary School. Grades 4 and 5 attend Morehead City Elementary School at Camp Glen and Grades 6 through 8 attend Morehead City Middle School. All three of these schools are located in Morehead City, roughly two miles from Atlantic Beach.

High school students (Grades 9 through 12) attend West Carteret High School, approximately five miles away in Morehead City. Table 38 provides detailed information on the schools serving Atlantic Beach.

Table 38. Carteret County Public Schools Serving the Town of Atlantic Beach, 2005

Facility	Enrollment	Staff/Teachers
Morehead City Primary School (K-3)	681	120
Morehead City Elementary School at Camp Glen (4-5)	361	45
Morehead City Middle School (6-8)	582	66
West Carteret High School (9-12)	1,198	134

Source: Carteret County Public School System.

Due to the construction of the new Morehead City Primary School in 1994, all above listed schools are well under capacity for the planning time frame (i.e., through 2010 to 2012).

Cape Lookout High School (Grades 9-12) in Morehead City and the Tiller School (Grades 1-6) in the Beaufort area are charter public schools and thus attract students from across Carteret County, including the Town of Atlantic Beach. Adult secondary education, including General Equivalency Degrees (GED) for adult students can be obtained from Carteret Community College.

According to the 2000 U.S. Census, there were approximately 140 children of school age (ages 5 to 18) in Atlantic Beach in the year 2000.

There are also a number of private schools in nearby communities, including Beaufort Christian Academy (Baptist, Beaufort), Carteret Academy (Non-Denominational Christian, Morehead City), St. Egbert Elementary (Roman Catholic, Morehead City), and Gramercy Christian School (Non-Denominational Christian, Newport).

Beyond the secondary school level, there are three community colleges located in reasonably close proximity to Atlantic Beach -- Carteret Community College in Morehead City, Coastal Carolina Community College in Jacksonville, and Craven Community College in New Bern.

## **10. Recreation**

The Town does not own any non-shoreline related recreational sites. The Town owns and maintains three regional shoreline access sites available to Town residents; one at NC Highway 58 at New Bern Avenue which has 50 parking spaces, restrooms and showers and two more at West Drive at Central Boulevard and at West Drive at Atlantic Boulevard. These latter facilities have ample parking (303 and 64 spaces respectively) and shower/bathroom facilities. The remaining 11 local public shoreline access sites are unimproved and lack dedicated parking facilities. A map of these sites is available from the DCM website at <http://dcm3.enr.state.nc.us/website/nccoast/viewer.htm>.

Other recreational opportunities include three privately-owned fishing piers, numerous privately-owned boat ramps, tennis courts and swimming pools, and the Fort Macon State Park located east of Atlantic Beach. Atlantic Beach does not employ any recreation personnel, except for lifeguards during the summer season.

Many residents of the Town use recreational facilities in and near Morehead City, particularly Shevans Park (owned and operated by Carteret County), which is a 2-acre neighborhood park with tennis courts and a playground, Swinson Park (also owned by the County), a 34-acre regional park with adult and youth ballfields, tennis courts, basketball courts, picnic shelters, playgrounds and related facilities, and Rotary Park, a 15-acre park featuring soccer and basketball facilities owned by Morehead City.

A 1999 study conducted by the Town with the assistance of East Carolina University found that a large majority of Town citizens do not favor public spending on additional recreation facilities (refer to Appendix A of the Town of Atlantic Beach Public Access - Preliminary Recreation Assessment).

#### **11. Electric Service**

The majority of Atlantic Beach is provided electrical service by Progress Energy Carolinas (formerly Carolina Power and Light). A small area in the west end of Atlantic Beach is provided service by the Carteret-Craven EMC. The town has never experienced any significant power shortage problems or "brown-outs," except following major hurricanes/windstorms due to equipment damage.

#### **12. Telephone Service**

Local telephone service is provided by Sprint, Inc. The town has not experienced any significant problems with telephone service availability.

#### **13. Internet Service**

High-speed internet service is available through Time Warner Cable, Sprint, Inc., DSL service, or through satellite internet service provided by numerous providers, including Earthlink.

#### **14. Cellular Telephone / Paging Service**

Cellular telephone and paging services are available town-wide from a number of service providers with offices in Morehead City and/or Beaufort, including Alltel, Sprint, AT & T Wireless, Nextel, US Cellular, and SunCom.

#### **15. Cable Television**

Cable television service is provided by Time Warner Cable, with offices in Newport. Satellite television is available through DirectTV and other service providers.

#### **16. Stormwater Management/Drainage**

##### *a. Introduction*

Stormwater discharges are generated by run-off from land and impervious areas such as paved streets, parking lots, and building rooftops during rainfall and snow events. They often contain pollutants in quantities that can adversely affect water quality and create flooding problems. When roads, parking lots, sidewalks, homes, and

offices replace the natural and permeable landscape, rainfall that would once soak into vegetated ground is now available for storm water runoff. As surfaces become more and more impermeable, water simply moves across them. These impermeable surfaces connect to form a stormwater super highway. One of the effects of this water super highway is that more and more stormwater reaches streams because there is less opportunity for it to infiltrate the ground. Peak flows also increase, transporting runoff from large areas rapidly. Velocities in streams increase causing more erosion potential, and lastly, base flow is lower during dry weather because of a lack of infiltration. Using a traditional analysis, such as the Natural Resource Conservation Service (NRCS) stormwater model, TR 55, or the United States Corps of Engineers' (USCE) many versions of HEC, it can be shown that peak flows alone can increase by as much as four times from pre-post development conditions. Flooding is the result of this urbanization.

*b. Erosion and Sedimentation*

Erosion and sedimentation have long been recognized as water quality concerns. The North Carolina legislature passed laws to curb sedimentation in 1973; however, sedimentation remains the number one pollutant in NC waters. In the 1990s, the focus of the Piedmont and Eastern NC watersheds turned towards excess nutrients in surface waters. The excess was due to extensive farming operations in the area. Fertilizers contain nutrients for plants to grow, but if excess fertilizer is inadvertently applied to pavement, these nutrients enter the waters during runoff periods causing harm to water quality. Even proper amounts of applied fertilizer can allow nutrients to enter streams in other ways, such as atmospheric deposition, wildlife and pet waste, and septic system malfunctions.

There are numerous ways to reduce pollutant loading. Proper application of fertilizer and proper maintenance of septic systems can reduce loading. Structural devices can also help curb this problem. These structural devices, known as Best Management Practices (BMPs), can be constructed to treat runoff, thereby reducing the amount of pollutant that enters the waterways. These BMPs include wet ponds, stormwater wetlands, infiltration trenches, wells, sand filters, bioretention rain gardens, rubble spreaders, riparian buffers, and reinforcing grassy swells.

*c. EPA Regulations*

The Environmental Protection Agency (EPA) has begun implementation of Phase II of the Stormwater Management Plan. These policies apply to municipalities with populations greater than 10,000 and/or with densities of 1,000 per square mile. For municipalities that meet these parameters, submittal of a stormwater management plan is required. Phase II regulations also apply to entities designated under the 1990 census as a Small MS4 (Small Municipal Separate Storm Sewer System). MS4's are defined as a publicly-owned conveyance or system of conveyances designed or used for collecting and

conveying stormwater. MS4's are not combined with sewer and are not part of a publicly-owned treatment facility. Municipally-owned MS4's can include counties, towns, airports, federal properties, hospitals, schools, etc. Small community MS4's are regulated if they discharge into impaired or sensitive US waters. In addition, counties classified as a Tier 4 or Tier 5 county are regulated. At this time, the Town of Atlantic Beach is not required to meet the new EPA Phase II Stormwater Management Program regulations, but expects to be required to meet all Phase II requirements in the near future (i.e., 5 to 7 year planning period for this Plan).

The EPA has developed guidelines for implementing the Phase II Stormwater Management Program. The stormwater pollution problem has two main components: the increased volume and rate of runoff from impervious surfaces and the concentration of pollutants in the runoff. Both components are directly related to new developmental and urbanizing areas. Both components also cause changes in the hydrology and water quality that result in a variety of problems, such as habitat modification, increased flooding, decreased aquatic biological diversity, and increased sedimentation and erosion. Effective management of stormwater runoff offers a multitude of possible benefits. Benefits include protection of wetlands and aquatic eco-systems, improved quality of receding water bodies, conservation of water resources, protection of public health through flood control, and improved operation and hydraulic characteristics of streams receiving run-off; all of which can cause higher peak flow rates that increase frequency and duration of bank full and sub-bank full flows. Increased occurrences in downstream flooding can also be reduced by lowering base flood levels, such as with traditional flood control methods that rely on the detention of the peak flows. They are generally not targeted to the reduction of flooding and in many cases have exacerbated the problems associated with changes in hydrology and hydraulics. The EPA recommends an approach that integrates control of stormwater peak flows and the protection of natural channels to sustain physical and chemical properties of aquatic life.

The EPA has outlined six steps for the development of BMP's for a stormwater management plan. The six steps are as follows:

- (1) Public Education and Outreach on Stormwater Impacts
- (2) Public Involvement and Participation
- (3) Elicit Discharge Detection and Elimination
- (4) Construction Site and Stormwater Runoff Control
- (5) Post-Construction Stormwater Management, and New Development or Redevelopment
- (6) Pollution Prevention and Good Housekeeping for Municipal Operations

d. *Construction Activities*

Stormwater runoff from construction activities can have a significant impact on water quality, contributing sediment and other pollutants exposed at construction sites. The NPDES Stormwater Program requires operators of both large and small construction sites to obtain authorization to discharge stormwater under a NPDES construction stormwater permit. In 1990, the Phase I Stormwater Management Program regulations addressed large construction operations that disturbed five (5) or more acres of land. The NPDES program also addresses small construction activities - those that disturb less than five acres of land - which were included in the Phase II final rule. Construction activities that disturb over one acre of land are required to develop and implement a stormwater pollution prevention plan specifically designed for the construction site. The development implementations of the plan follow the basic phases listed below:

- (1) Site Planning and Design Development Phase
- (2) Assessment Phase
- (3) Control Selection/Design Phase
- (4) Certification/Verification/Approval Phase
- (5) Implementation/Construction Phase
- (6) Final Stabilization/Termination Phase

e. *North Carolina Shoreline Buffering*

In August 2000, the State of North Carolina developed a 30 foot buffering rule for all new development in the 20 coastal counties governed by the Coastal Area Management Act (CAMA). This rule applies to all navigable waters, excluding the ocean, which has previously established setback requirements. The development of this buffer does not restrict the construction of water dependent structures, such as docks and boat ramps. The benefits of the buffering include the following:

- (1) Flood Control - by reducing the velocity and providing a collection area for stormwater runoff and precipitation. Buffers encourage water infiltration into the ground, rather than flooding low-lying areas.
- (2) Groundwater Recharge - buffers are also beneficial to recharging the ground water supply and promoting ground water flow.
- (3) Soil Erosion Prevention - vegetated buffers stabilize the soil and reduce sedimentation.
- (4) Conservation of Coastal Riparian Wildlife Habitats - these natural areas provide breeding, nesting, and habitat, and protect wildlife from predication. Vegetated buffers help increase the diversity of wildlife while providing site for foraging and corridors for dispersal.

*f. Stormwater Management/Drainage as Related to Atlantic Beach*

Atlantic Beach experiences drainage problems throughout the town. These problems all result from low elevation and depressed areas that do not have any natural drainage. A particularly serious problem exists at the Wilson Avenue/East Terminal Boulevard intersection. However, the town has taken mitigative action to substantially reduce the problem. The Town has attempted to address this problem through the installation of 11 stormwater pumps to quickly remove standing water from closed drainage basins. These pumps remove water from developed residential and commercial areas to between the first and secondary dune lines where it can be filtered and safely discharged to the sea or to Bogue Sound.

It should be noted, however, that the Town has very limited options in effectively dealing with stormwater management/drainage concerns, due to the generally high water table and the extremely limited amount of available land on which to detain or retain stormwater runoff.

The above-referenced stormwater pumps, while somewhat effective in reducing stormwater-related flooding and standing water, contribute to elevated fecal coliform levels in Bogue Sound that contribute to the closure of shellfish beds. Stormwater runoff quantity is increased and water quality decreased by landscaping practices that focus on sod and non-native vegetation, rather than xeriscaping and use of local vegetation.

The installation of a sanitary sewer system town-wide would allow the Town to install ditches/swales along major roadways to help capture and filter stormwater and undertake other stormwater management BMPs. Under current conditions, this practice has the effect of interfering (either directly or through removing repair areas) with existing septic systems in the vast majority of areas of the Town (i.e., those areas without package wastewater treatment systems).

Flooding is most serious during strong summertime conventional storms. Because of the porous soils, the standing water normally seeps into the ground in several hours. The town does not have a master drainage plan.

Stormwater runoff into the estuarine canals located within the town adds to the pollution from malfunctioning septic tanks. Many of the canals have little or no "flushing" action. Therefore, pollution is allowed to accumulate without any regular cleansing.

Map 18 depicts areas of particular drainage/stormwater management concerns.

Map 18 - Stormwater Concerns

## E. CURRENT PLANS, POLICIES, AND REGULATIONS

The Town of Atlantic Beach has a strong and active planning program. The town employs a full-time planning director, and inspections director and an administrative assistant. A variety of local codes and ordinances have been adopted to regulate land use. These controls are managed by the Planning staff, and legislated by the Town Council with the advice and support of the Planning Board.

The Town technically has an extraterritorial jurisdiction (ETJ) which extends one mile in to the Atlantic Ocean and one mile in to Bogue Sound. The ETJ in the Bogue Sound is coterminous with the Morehead City ETJ. The Bogue Sound ETJ is zoned RS-Recreational Sound, while the ocean ETJ area has the same zoning as the zoning of the adjacent land area. Policies listed below are also applicable in this ETJ area unless otherwise noted.

The following provides a description of each of the town's land use-related codes, ordinances, and planning documents:

### 1. **1993 Atlantic Beach CAMA Land Use Plan Update**

Atlantic Beach's existing land use plan was certified by the Coastal Resources Commission on May 27, 1994. The document complies with the 15A NCAC 7B planning requirements. In addition, the policies contained within the plan meet or exceed the State of North Carolina minimum use standards for areas of environmental concern as set forth in 15A NCAC 7H.

In most cases, the policies adopted support the 15A NCAC 7H minimum use standards. However, in many areas, the 1993 policies exceed the state's minimum use standards. Section 5(G) of this Plan will review, in detail the status of the goals, policies and implementing actions adopted in the 1993 CAMA Land Use Plan.

### 2. **Beach and Shoreline Regulations**

These regulations are included in Chapter 5 of the Municipal Code. Usage of beach and shoreline areas is regulated, including prohibition of glass containers and metal cans, surfing, vehicular traffic, and issuance of permits for beach traffic.

### 3. **Buildings and Building Regulations**

Chapter 6 of the Municipal Code includes these regulations. The town has adopted and enforces the North Carolina state building, plumbing, heating, electrical, and residential codes. The chapter also establishes requirements for a uniform numbering system for all buildings.

#### **4. Planning and Development**

Atlantic Beach's planning program is established by Chapter 13 of the Municipal Code, with responsibility over enforcement of zoning and subdivision regulations administered through the Planning and Inspections Department. The chapter establishes both the Planning Board and Board of Adjustment. Responsibilities for both boards are defined. In addition, the chapter establishes the following:

- Implementation and enforcement program for minor (CAMA) development permits.
- Soil, erosion, and sedimentation control.
- Group housing regulations, including controls for condominiums, townhouses, and apartments.
- Construction permits.

#### **5. Streets and Sidewalks**

The use and maintenance of streets and sidewalks is regulated by Chapter 16 of the Municipal Code. Damage to streets, bridges, lights, and signs is regulated and prohibited. In addition, controls on the moving of buildings upon or across public streets or sidewalks are provided.

#### **6. Subdivision and Pre-Development Regulations**

Chapter 17 of the Municipal Code provides the Town of Atlantic Beach subdivision regulations. The following excerpt from the subdivision ordinance provides the purpose of the subdivision regulations:

"The purpose of these regulations is to regulate and control the subdivision of land within the limits of the town in order to promote the public health, safety, and general welfare of the community. They are designed to lessen congestion in the streets and highways; to further the orderly layout and use of land; to insure proper legal description and proper monumenting of subdivided lands; to secure safety from fire, panic and other dangers; to provide adequate light and air; to prevent the overcrowding of land and avoid undue concentration of population; to facilitate adequate provisions for transportation, water, sewerage, parks, schools, playgrounds and other public requirements; to facilitate the further resubdivision of larger tracts into small parcels of land."

Specifically, the subdivision regulations require that:

- Town services shall not be provided until a final subdivision plat is approved;
- No streets or utilities shall be accepted until a final subdivision plat is approved;
- No construction permits shall be issued until a final subdivision plat is approved.

## 7. Zoning

The Atlantic Beach zoning ordinance is included in Chapter 18 of the Municipal Code. The purposes of the zoning ordinance, as stated in the Section 18-1 of the 2001 revisions to the ordinance, are as follows:

“(1) Promoting the public health, safety, morals, and general welfare; (2) Promoting the orderly growth and development of the Town of Atlantic Beach and the surrounding area; (3) Lessening congestion in the street and roads; (4) Providing adequate light and air; (5) Securing safety from fires, panic, and other dangers; (6) Preventing the overcrowding of land; (7) Avoiding undue congestion of population; (8) Facilitating the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements.”

The zoning ordinance includes the following twelve land use districts. Each parcel of land in the Town is included in one of the following districts:

*RA-1 Residential District.* The RA-1 residential district is established as a district in which the only use of land is for single-family dwellings.

*RA-1.5 Residential District.* The RA-1.5 residential district is established as a district in which only single-family dwellings or duplex dwellings will be allowed.

*RA-1M Residential District.* The RA-1M residential district is established as a district in which the only use of land is for single-family dwellings which shall include conventional houses, modular homes and mobile homes.

*RA-2 Residential District.* The RA-2 residential district is established as a district in which the principal use of land is for single-family, duplex, triplex, and four-family dwellings.

*RA-3 Residential District.* The RA-3 residential district is established as a district in which the principal use of the land is for high density residential development in order to provide overnight accommodations.

*RA-3M Residential District.* The RA-3M residential district is established as a district in which the principal use of the land is for high density residential development in order to provide overnight accommodations.

*RA-3V Residential District.* The RA-3V residential district is established as a district in which the principal use of land is for high density residential development in order to provide overnight accommodations.

*RR Resort Residential District.* The RR resort residential district is established as a district to provide areas, which, due to their location, natural features and access, have an extremely high potential for both permanent and tourist types of residential development.

*RC Resort Commercial District.* Within a limited business district, it is intended that permitted uses shall be oriented to those businesses and services associated with those tourist related activities which reflect a family atmosphere.

*RS Recreational Sound District.* The RS district is established as a district in which the principal use of land and water is for recreational purposes only.

*CDD Circle Development District.* The CDD district allows a dense mix of commercial and residential uses in “The Circle” redevelopment district as designated by the Town. Development in this district is subject to the requirements of the Town’s “Circle Development District” ordinance adopted in 2004.

*GB General Business Zone.* The purpose of this district shall be to create and maintain general businesses and professional offices which are necessary to the residents of Atlantic Beach and also to the tourists who visit Atlantic Beach.

*CZ Conservation Zone.* The purpose of this conservation zone is to provide environmental protection for surface waters and to protect the wildlife and natural features of the property. Any activity in this zone inconsistent with the purposes of this zone is prohibited. The property shall be maintained in its natural, scenic, wooded and open condition and restricted from any development or use that would impair or interfere with the conservation purpose of this conservation zone.

In addition to the twelve aforementioned primary zoning districts, the Town created two “overlay” zones in 2001. These “overlay” zones can be found in any of the twelve primary zoning districts and they impose additional site and building design requirements to those found in the primary zoning categories. The first of these overlay zones is for areas identified as maritime forests. In these areas, significant maritime forests must be preserved. The second overlay zone applies to special flood hazard areas. In these areas, filling, grading and dredging, and the installation of flood barriers are restricted to ensure no negative impacts to nearby properties and foundation elevation requirements are imposed.

#### **8. NCDOT Transportation Improvement Program (TIP), Division 2, 2004-2010**

The TIP is developed on a yearly basis by the North Carolina Department of Transportation (NCDOT) and contains funding information and six year schedules for various transportation divisions including: highways, aviation, enhancements, public transportation, rail, bicycle and pedestrians, and the Governor’s Highway Safety Program. The only TIP project in the Town of Atlantic Beach is a project to construct sidewalks from Ocean Ridge Drive to the corporate limits under a NCDOT Enhancement Project. This project is expected to begin construction in 2005 and cost approximately \$120,000 (Project Number E-4734).

#### **9. Crystal Coast Area Long-Range Transportation Plan**

This document has been under development since 2001 and is still (March, 2005) in final draft form. It is being developed by NCDOT to serve as a long term (i.e., through 2025) transportation and thoroughfare plan for Beaufort, Morehead City, Cape Carteret, Cedar Point, Emerald Isle, Indian Beach, Pine Knoll Shores, and Atlantic Beach. The Plan encourages traffic signal analysis/coordination, the construction/installation of pedestrian and bicycle paths, and the widening or upgrading of 13 major thoroughfares, none of which are in the Town. The Plan does, however, encourage widening of US Highway 70 at numerous locations between Raleigh and Atlantic Beach, thus improving access to the Town.

#### **10. Water Department Policies**

In 1993, the Town created Section 21 and 22 of its Water Supply policy to establish water tap fees and impact fees for homeowners and businesses wishing to tap into the Town’s Potable Water Supply System. The intent of the tap fees was simply to cover the cost of tap installation, up to 2” service connections (beyond that size the owner must pay a contractor to install a tap). Fees range from \$350 to \$1,200 depending on tap size.

The intent of the impact fee is to maintain and upgrade its water system for fire protection, supply and storage capacity, and to meet health and safety regulations established by State and Federal agencies. Impact fees are over and above any other fees required by the Town of Atlantic Beach for connection to the municipal water system, and shall be required for all new or modified services.

#### **11. Marina Ordinance**

In 1978, the town adopted a marina ordinance. The ordinance defines marinas as establishments providing storage for more than six boats, wet or dry facility. A site plan is required which meets the ordinance requirements for minimum lot size, width, depth, side yard, and rear yard. The site plan must be prepared by a registered engineer, and include parking and storage areas, driveways, signs, lighting, pollution control, and dock construction.

In 1988, this ordinance was incorporated into Article V of Chapter 6 of the Town's Code of Ordinances (Buildings and Building Regulations)

#### **12. Flood Damage Prevention Ordinance and Community Rating System (Repetitive Loss) Plan**

In 1978, the town adopted the flood damage prevention ordinance in order to comply with the National Flood Insurance Program. Specifically, the ordinance requires the following:

- All new residential construction or improvements greater than 50% of structure's market value must be elevated to or above 100-year base flood elevations.
- Commercial buildings must be elevated above base flood elevations or floodproofed.
- Anchorings and pilings designs must be certified by a registered engineer or architect, or must be in full compliance with the NC State Building Code.
- No alterations of frontal dunes or fill for structural support is allowed in "V" or velocity zones except as may specifically be allowed under CAMA regulations. (Source: 1988 Atlantic Beach Land Use Plan.)

The Town currently has a Community Rating System rating of eight which means that it takes extra efforts to minimize the risk of flooding in the Town and which awards its citizens approximately a ten percent reduction in their flood insurance premiums.

In 2001, the Flood Damage Prevention Ordinance was incorporated into Section 18-102 (Zoning) of the Town's Code of Ordinances, and is now administered through the Planning and Inspections Department.

### **13. Mobile Homes and Mobile Home Park Ordinance**

The Atlantic Beach mobile homes and mobile home park ordinance was adopted in 1986. This ordinance regulates mobile home park development, mobile homes within parks, and mobile homes placed on individual residential lots in subdivisions. Design standards for mobile home parks are established and plans for mobile home parks are required. The mobile home park plans must provide the following: site plan defining all features, stormwater drainage plan, description of recreation areas, indication of water supply, definition of sewage disposal method, and site development standards.

In 2001, the provisions of this ordinance were incorporated into Chapter 18 (Zoning) of the Town's Code of Ordinances and is now administered through the Planning and Inspections Department.

### **14. Recreational Vehicle Parks**

A recreational vehicle parks ordinance was adopted in 1987. The ordinance regulated parks intended to provide temporary dwelling spaces for travel trailers, motor homes, tent campers, and truck-mounted camper. Standards for the following are included: minimum park area, minimum lot area and width, minimum distance between campers, driveway/parking standards, stormwater drainage, water supply, sewage disposal, and solid waste disposal.

In 2001, the provisions of this ordinance were incorporated into Chapter 18 (Zoning) of the Town's Code of Ordinances and is now administered through the Planning and Inspections Department.

### **15. Carteret County Emergency Operations Plan for Multi-Hazards and Standard Operating Procedures (SOP)**

In 1992, the Town of Atlantic Beach adopted the Carteret County SOP. This manual provides standard operating procedures to be implemented in the event of a hurricane or other natural disaster, in conjunction with the County, and the Towns of Pine Knoll Shores, Indian Beach, and Emerald Isle. Procedures include: evacuation, operation

of the Carteret County emergency operations center, damage assessment, post-disaster recovery, disaster assistance, temporary housing, tornadoes, winter storms, transportation accidents/mass casualties, and plane crashes.

#### **16. Erosion and Sediment Control Ordinance**

The Erosion and Sedimentation Ordinance of Atlantic Beach was passed in 1985 with the main intent of regulating certain land disturbing activities in order to control the accelerated erosion and sedimentation amounts that can damage the watercourses of the area as well as damage public and private properties. The ordinance requires property owners to apply for permits and submit plans for control of erosion and sedimentation for specified land disturbing activities of ½ acre or greater. The ordinance has been expanded somewhat to give the town limited enforcement over projects containing less than ½ acre for properties along the waterways (Source: Town of Atlantic Beach Hazard Mitigation Plan).

#### **17. Dune Protection Ordinance**

In 2001, the Town of Atlantic Beach passed a dune protection ordinance to preserve the protective quality of the remaining dune structures within the town. The regulations prohibit any damage or destruction to any dune within the town. Certain reconstruction or relocation efforts are permitted to allow for the development of a lot; however, the dune must retain its entire height and mass upon relocation (Source: Town of Atlantic Beach Hazard Mitigation Plan).

#### **18. Privatization Feasibility Study and Design/Build/Own Action Plan: Municipal Wastewater Treatment Facilities for the Town of Atlantic Beach**

In 2001, Infrastructure Management Group, Inc. (IMG), of Bethesda, Maryland, completed a privatization feasibility study for the development of a Town-wide sewerage (wastewater collection and treatment) system to be operated by a private vendor. This Plan looked at the economic and environmental feasibility of such a system and found it to be feasible on both accounts.

IMG is currently completing a Design/Build/Own Action Plan for a Wastewater System that will allow them to assist the Town in taking proposals from private firms to design, build, and operate a Town-wide wastewater collection and treatment facility in the Town. Proposals could be solicited as early as 2006, but no final decisions on a timeline have been made as of this date (March, 2005).

## **19. Town of Atlantic Beach Hazard Mitigation Plan**

Developed by the Town Planning Director and adopted in January 2005, the Hazard Mitigation Plan (HMP) identifies potential natural hazards that may affect the Town, identifies the extent of the risk the Town faces from these hazards, and adopted goals, policies and procedures to help minimize these risks over the long term.

This Plan was required by Federal and State laws adopted in the year 2000 that require all local governments to have a hazard mitigation plan in place as a condition of disaster recovery and hazard mitigation assistance after November 2004. The HMP has been approved by the State and is under final review by FEMA as of this writing (March, 2005).

## **20. Public Access - Preliminary Recreation Assessment**

In 1998, the Town was awarded a grant from the North Carolina Department of Environmental and Natural Resources (DENR) to develop a preliminary assessment of recreation needs and desires. This assessment was completed in 1999, and relied largely on extensive surveys of the Town's citizens and many public meetings. The primary finding of the assessment was that a large majority of property owners in Town felt that the Town's ocean and beach accesses and boat ramps were adequate and they did not want Town funds to be used for the construction of indoor or outdoor recreational facilities.

## **21. Economic Analysis and Profile for Development Opportunities Within the Circle Area**

Developed in January 2002, by Town Planning staff, this analysis presented basic information about current conditions in the "Circle Area," including regulatory restrictions, property values, tax receipts and expenditures, and opinions of nearby homeowners, and presented several redevelopment options for the area. This analysis presented much information useful for the subsequent development of the Circle Development District Ordinance (see below).

## **22. Coastal Habitat Protection Plan (CHPP)**

The North Carolina General Assembly passed the Fisheries Reform Act in 1997 which contained the directive to protect and enhance habitats supporting coastal fisheries. In response to this directive, the Legislature directed the North Carolina Division of Marine Fisheries to develop a plan that would help meet the aforementioned legislative goal and to serve as the factual basis for possible regulations/guidelines/rules to be adopted by the State's fisheries' regulatory bodies.

This plan was completed in draft form in December 2004. The over 600 page document does the following:

1. Document the ecological role and function of aquatic habitats for coastal fisheries.
2. Provide status and trends information on the quality and quantity of coastal fish habitat.
3. Describe and document threats to coastal fish habitat, including threats from both human activities and natural events.
4. Describe the current rules concerning each habitat.
5. Identify management needs.
6. Develop options for management action using the above information.

This document should be carefully reviewed and its impact on rule-making/ regulation closely monitored by the Town, because of its potentially broad impact on land use in coastal areas.

### **23. Circle Development District Ordinance**

In September 2004, the Town adopted the Circle Development District Ordinance (CDDO), which was, according to the CDDO “designed to re-establish and preserve the Circle area as the primary civic, retail, office, institutional, cultural and entertainment center for the community.” Towards this goal, the CDDO allowed a dense mix of development and land uses within the Circle Development District, with the intent of providing a hub of activity that was walkable and that encouraged similar development in adjacent areas, lessening the reliance on the automobile to access recreational and commercial opportunities. Developer Fred Bunn, of Wilson, North Carolina, will soon begin extensive construction in this area, pursuant to CDDO guidelines.

F. LAND SUITABILITY ANALYSIS

A thorough analysis of all impediments to development, as well as existing community facilities, has been completed in Sections V(B), V(D), and V(E) of this Plan. These same sections also analyzed factors that attract development, such as the presence of transportation, water, and waste disposal capabilities. All of these variables factor into suitability for development for a specific piece of property. In order to assess what affect the various man-made and environmental constraints will have on development throughout the Town of Atlantic Beach, an overlay analysis was performed. This overlay analysis is a GIS-based process geared toward evaluating the suitability of land for development. The procedure is very similar to the practice developed by Ian McHarg, the Scottish urban designer, in which geospatial data layers are referenced to each other in an effort to determine what portions of a land mass appear to be the most favorable sites for a specific land use.

The overall process utilized Arcview GIS software with the Spatial Analyst extension along with data layers provided by the North Carolina Center for Geographic Information and Analysis (NCCGIA). The analysis takes into consideration a number of factors, including natural systems constraints, compatibility with existing land uses and development patterns, existing land use policies, and the availability of community facilities. The end product of this analysis is a land suitability map that shows underutilized land that is suited or not suited for development (see Map 19). This map can be used as a foundation for the discussion and formation of town-wide land use policy and should be compared to the future land use map (see Section VI(D)).

Land suitability analysis involves the application of criteria to the landscape to assess where land is most and least suitable for development of structures and infrastructure. A computer application is not essential for this analysis, but greatly simplifies the process.

There are eight key steps to completing the overlay analysis:

- (1) Define criteria for the analysis
- (2) Define data needed
- (3) Determine what GIS analysis operations should be performed
- (4) Prepare the data
- (5) Create a model
- (6) Run the model
- (7) Analyze results
- (8) Refine model as needed

All of these steps have been completed and, as noted above, the end product is displayed on Map 19. There were no additions or adjustments to the default layer sets and weighting factors provided by the Division of Coastal Management to the town for the existing land suitability analysis map. Prior to producing the map, data was compiled and each data layer in conjunction with criteria was assigned a weight. The town was then divided into one-acre squares. Each of these one-acre squares of land was given a score based on how that respective piece of property related to each data layer. The score for each data layer was multiplied against that given layer's weight. The scores for each layer were added together to determine a suitability rating for that one-acre square of property. The suitability rating falls into four primary categories: least suitable, low suitability, medium suitability, and high suitability.

The following table summarizes all data layers used, including the criteria and weight assigned to each layer.

Table 39: Land Suitability Analysis Criteria

Layer Name		Criteria and Rating				Assigned Weight
		Least Suitable	Low Suitability	Medium Suitability	High Suitability	
		0	-2	1	+2	
Coastal Wetlands	Exclusion*	Inside	--	Outside	--	
Exceptional & Substantial Non-Coastal Wetlands	Exclusion*	Inside	--	Outside	--	
Estuarine Waters	Exclusion*	Inside	--	Outside	--	
Protected Lands	Exclusion*	Inside	--	Outside	--	
Storm Surge Areas	Weighted	--	Inside	--	Outside	2
Soils (Septic Limitations)	Weighted	--	Severe	Moderate	Slight	2
Flood Zones	Weighted	--	Inside	--	Outside	2
HQW/ORW Watersheds	Weighted	--	Inside	--	Outside	1
Natural Heritage Areas	Weighted	--	<500'	--	>500'	1
Hazardous Substance Disposal Sites	Weighted	--	<500'	--	>500'	1
NPDES Sites	Weighted	--	<500'	--	>500'	1
Wastewater Treatment Plants	Weighted	--	<500'	--	>500'	1
Discharge Points	Weighted	--	<500'	--	>500'	1
Land Application Sites	Weighted	--	<500'	--	>500'	1
Developed Land	Weighted	--	>1 mi	.5 - 1 mi	<.5 mi	1
Roads	Weighted	--	>1 mi	.5 - 1 mi	<.5 mi	2
Water Pipes	Weighted	--	>.5 mi	.25 - .5 mi	<.25 mi	3
Sewer Pipes	Weighted	--	>.5 mi	.25 - .5 mi	<.25 mi	3

\*Data layers that are slated as exclusion have a suitability of 0 or 1, meaning that if a specific one-acre piece of property falls within one of these areas, it is automatically considered least suitable for development. Source: NCCGIA and CAMA.

Overall, land in the Town of Atlantic Beach is predominantly suitable for development. Table 40 below provides a summary of land suitability acreage based on the results of the overlay analysis. Currently undeveloped areas adjacent to or near Bogue Sound are generally the least suitable areas for development, due to environmental constraints and lack of infrastructure, while the remainder of the Town is primarily of medium or high suitability for development.

Table 40: Town of Atlantic Beach and ETJ  
Land Suitability Analysis, 2005

	Acres	% from TOTAL
Least	580	35.13%
Low	86	5.21%
Moderate	484	29.32%
High	501	30.35%
TOTAL	1,651*	100.00%

\*Please note that road rights-of-way and water are included in this figure.  
Source: NCCGIA and Holland Consulting Planners, Inc.

Map 19 - LSA

## SECTION 6. PLAN FOR THE FUTURE

### A. FUTURE DEMANDS

#### 1. Introduction

One of the primary purposes of this land use plan is to project the demand for various types of land uses and for infrastructure in the future, so that the Town can provide a sufficient regulatory environment (e.g., zoning compatible with future land use needs) and sufficient infrastructure to accommodate future growth in a responsible and sustainable fashion. This section of the plan projects future demands for land use and infrastructure based on future growth projections as well as predicted demographic and economic changes.

#### 2. Residential Land Use

As noted in Section 5(C) of this Plan, approximately 42 new residential units have been permitted per year, on average, by the Town from the year 2000 through the year 2004. None of the residential units permitted since 2000 have been in buildings with more than four (4) units, with the majority being one and two unit structures, including a large number of mobile homes (approximately 25% of all permitted units since 2000). The vast majority of these newly permitted units have also been on individual “infill” lots in existing developed areas, rather than large conversions of raw land to residential development.

Also as noted in Section 5(C) of this Plan, there are only approximately 50 acres of currently developable raw land in the Town appropriate for residential development; and various regulatory, economic, and practical considerations preclude a gross residential density of the Town much greater than the current 8.31 units per acre.

Therefore, without any significant changes in infrastructure, economic conditions, or regulatory conditions (e.g., zoning requirements, CAMA permitting requirements), the Town can accommodate approximately 415 new residential units before total buildout (in addition to the 350 units approved for the Fred Bunn/Circle Redevelopment Project). This means that at the current pace of residential development (42 new residential units/year), all raw land readily available for residential development will be used within 10 years (i.e., no later than 2015).

Several factors, however, indicate that the future of near-term development (e.g., 2006 through 2013) in the Town of Atlantic Beach may be quite different from the recent past, as follows:

- A significant and persistent increase in property values and an increased number of real estate speculators in the market makes the development of one-and-two-family units increasingly less cost-effective, and thus less likely, except for luxury/waterfront units. Demand for both higher density and luxury residential units will increase significantly during the planning period (5 to 7 years).

Current zoning regulations and generally small lot sizes in the Town favor the development of three-and-four unit residential developments, with the potential to disrupt the primarily single-family nature of many neighborhoods in Town and to strain the capacity to serve this development with current infrastructure (e.g., roads, septic tanks, etc.). Under current regulations, only 6,000 square feet (.138 of an acre) are needed for duplex development and only 10,000 square feet are needed for the development of a quadplex (i.e., 4 units) in most zoning districts.

- The decreasing availability of large (i.e., minimum of 2 acres under current requirements) parcels with proper environmental/site conditions, the above-referenced high land values, the high costs of redeveloping existing sites, the potential impact of the Fred Bunn/Circle Redevelopment project, and the uncertainty over the potential for sewer system development may temporarily stall the development of high density residential units, despite the clear demand for such units.

Over the medium term (3 to 5 years), demand for such units is likely to overcome the aforementioned impediments, as costs of development in comparable beachfront communities such as Carolina Beach or Kure Beach becomes prohibitively expensive. This means that demand for redevelopment of existing developed areas will increase significantly through the planning period (i.e., through 2013).

- An increasing percentage of residents will be year-round or nearly year round, as opposed to seasonal, with the impending retirement or semi-retirement of the large “baby boom” generation. This suggests the need for larger residential units and residential units closely accessible to amenities associated with permanent residency in an area (e.g., health care facilities, pharmacies, financial services offices, etc.).

These factors suggest the following action items that should be taken by the Town of Atlantic Beach in order to help guide residential development to the most appropriate areas in Town and to help establish the density and intensity of residential development:

- The Town should enact fair and consistent standards for the development of multi-family units. Under current zoning regulations, the Town allows a 4-unit development to be developed on as little as 10,000 square feet, while a 5-unit development requires at least 2 acres (approximately 85,000 square feet). Such a revision may result in a development pattern that allows for residential densities more commensurate with land values and prevents encroachment of 3 and 4 unit developments into primarily single-family neighborhoods.
- The Town should consider designating additional appropriate areas with zoning classifications similar to the Circle Development District and consider revising development regulations to encourage dense, mixed-use development in these areas. The Town should also simultaneously consider restricting dense/intense development in districts where the Town wishes to encourage and/or preserve lower density development.

Additional study is recommended in order to identify the most suitable areas for these proposed changes. The most suitable areas for mixed-use zoning designation are those where this type of development is compatible with existing adjacent development, is accessible to necessary infrastructure, and is in areas most likely to experience economic pressure to redevelop in a more dense and intense fashion. Analysis associated with this plan suggests that a total of approximately 5,715 residential units are the maximum number of residential units sustainable based on current infrastructure and Federal/State/local development regulations. Any rezonings should consider this an approximate guideline when considering necessary future densities and intensities of development.

- The Town should work, through the Planning and Public Works Departments, to carefully consider zoning and development regulation modifications prior to the final design and planning stage of any public sewerage system.

Although we do not believe that public sewerage will significantly increase the *overall* residential density of the Town, the significant land valuation increases brought on by sewer installation and the significantly increased density that can be developed on a land site will affect the *distribution* of the Town's overall residential density. In other words, the installation of public sewerage in the Town will likely make high density residential development and higher value low/medium density development considerably more attractive (i.e., than they are currently without public sewerage).

Any such zoning/development regulation modifications should be made in close concert with the Town's Public Works Department to ensure that they do not affect the feasibility/profitability of the system if the system is approved by the Town for installation. Any such modifications, however, should ensure that dense/intense land uses are sited in the most appropriate locations.

- The Town should ensure that hotels/motels converted to condominiums (known as "condotels") are carefully regulated and managed. The trend towards hotel to condo conversion is being driven by a strong residential market, low interest rates, a lack of supply in condominium rooms to meet demand, lower grade hotels that are not earning adequate returns and a strong visitor industry that is doing well with both rates and occupancy (Source: F. Kevin Aucello, vice president and principal at CB Richard Ellis). A condotel is simply a hotel where the ownership of the hotel has been condominiumized from one owner to an owner for each of the rooms and common areas of the hotel. Though the ownership is separated, the property is still run as a standard hotel. Although this practice often results in significant upgrades to the "condotel" sites, it presents some concerns about infrastructure capacity and conflicts between permanent/semi-permanent residents and transient guests.

### **3. Commercial Land Use**

As has been noted previously in this Plan, the commercial development in the Town of Atlantic Beach is largely focused on the service of tourists, with a large proportion of tourist-related businesses (e.g., night clubs, restaurants, other entertainment centers, and souvenir shops). The Town has approximately 129 acres in commercial use, approximately 80% of which are commercial enterprises wholly or substantially reliant on tourism for income (Source: Holland Consulting Planners, 2005 Existing Land Use Survey).

As with many areas of the nation and the State, commercial development has occurred in a linear or strip fashion, along Fort Macon Road and Atlantic Beach Causeway. Both of these linear commercial strips have created some conflicts between adjacent non-commercial developments, as commercial development has encroached on residential districts.

The following factors will affect commercial land use during the 5 to 7 year planning period:

- A combination of factors may lead to an overall reduction in the square footage of commercial development in the Town, as follows:
  - Significantly increased land values make large, “stand-alone” tourist-oriented retail/entertainment businesses more difficult to justify economically; and
  - The Town has an increasingly aging and antiquated commercial building stock; and
  - The range of retail and other commercial opportunities in the Morehead City Area continues to expand; and
  - Very little land zoned commercial and currently undeveloped exists in the Town; and
  - Redevelopment cost of existing commercial facilities is high; and
  - An increasingly permanent, older and wealthier population and tourist base will demand a different mix of goods and services than that currently provided in Town.
  
- Even though businesses in the Town also serve the Pine Knoll Shores, Indian Beach and Salter Path areas, the population of the area (including the Town) will not be large enough during the planning period to attract commercial concerns larger than a supermarket, pharmacy, or tourist-oriented restaurants/entertainment facilities.

The factors described above suggest that the Town should consider, through modification of existing zoning and development regulations, encouraging the location of smaller and specialized retail, office, and institutional (e.g., health care, financial services) commercial uses that can be readily incorporated into mixed-use residential/commercial uses.

This type of “mixed-use” development provides the following advantages to the Town:

- Minimizes (or does not significantly worsen) traffic congestion
- Concentrates the visual impact of commercial development
- Maximizes the access to new development
- Has the greatest potential market for pass-through and walk-in traffic
- Minimizes encroachments on existing residential neighborhoods and other incompatible land uses

- Allows and encourages the redevelopment of existing commercial development to its highest and best use

The Town should also consider investigating the need for a new zoning district for intense entertainment and other tourism-related uses, such as water parks, miniature golf and large restaurants, in order to avoid conflicts with both existing residential areas and the emerging mixed use developments aforementioned. In general, these types of uses are currently allowed by Special Use Permit in the Resort Commercial (RC) zone.

The area in and near the Coral Bay/Atlantic Station Shopping Centers are and should remain the primary, regional (i.e., eastern Bogue Banks) commercial hub for commercial services oriented towards permanent residents (e.g., supermarket, pharmacy, etc.) during the planning period.

#### **4. Industrial Land Use**

The Town does not have any uses classified as industrial, does not have a zoning designation for such uses, has not experienced demand for such uses, and does not have any vacant or readily redevelopable land for such uses.

Intense land uses that could generate noise or odors incompatible with residential uses - such as marinas/boat docks and gas stations - do exist in the Town, but are limited to the General Business, Resort Commercial and/or Resort Sound Districts and subject to site design requirements that minimize the potential for negative impacts to adjacent or nearby residential development.

#### **5. Transportation**

As noted in Section 5(D) of this Plan, the NC Department of Transportation (NCDOT) does not anticipate any significant roadway improvements for the Town through at least 2010, despite severe traffic congestion on Fort Macon Boulevard (NC Highway 58) and the Atlantic Beach Causeway during the peak of the tourist season (e.g., weekends from Memorial Day to Labor Day).

Relief of these congested roadway conditions through roadway improvements, however, is unlikely during the planning period (through 2012), for the following reasons:

- A planned third bridge from the mainland to Bogue Banks, initially called for to connect the Salter Path/Indian Beach area to the mainland and included in the 1993-1999 NCDOT Transportation Improvement Plan (TIP) was not constructed, due in part to local opposition, cost-effectiveness concerns, and environmental concerns. This plan is unlikely to be resurrected during the planning period.

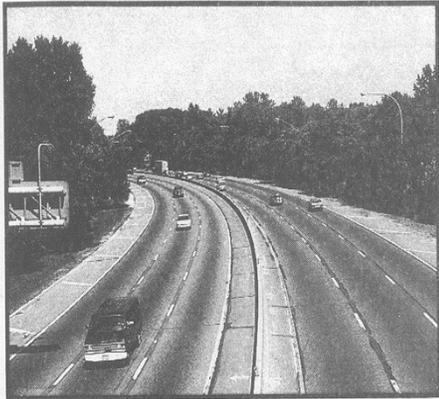
- Any expansion of either Fort Macon Boulevard or the Atlantic Beach Causeway would be very costly and disruptive to existing development, due to the lack of significant additional right-of-way along these routes and high land costs.
- The tremendous seasonal variation in the level of service (LOS) on Fort Macon Boulevard and the Atlantic Beach Causeway makes roadway improvements difficult to justify in terms of cost-effectiveness. LOS is a method of characterizing the relationship of travel demand to roadway capacity used by transportation planners. Six distinct levels-of-service are possible, with letter designations ranging from LOS A, which represents the best operating conditions, to LOS F, which represents the worst operating conditions. LOS D indicates “practical capacity” of a roadway, or the capacity at which the public begins to express dissatisfaction. Various LOSs are depicted on page 141.

On weekends during the summer months, Fort Macon Boulevard and the Atlantic Beach Causeway often reach LOS E or LOS F. During the off-season (November through February), however, LOS A or LOS B are often achieved on these roadways.

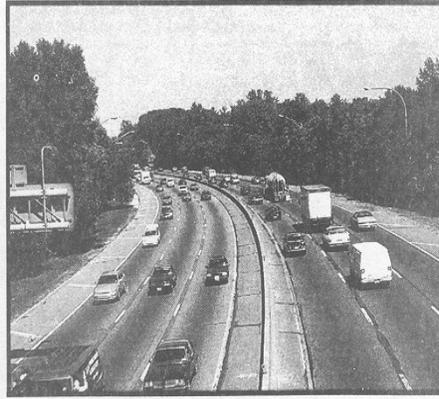
For the above-listed reasons, the Town should consider studying the effectiveness of seasonal trolley service and/or other methods of transportation system improvement that do not involve significant investments in new roadway infrastructure as a method of reducing the seasonal traffic loads and/or reducing the increase in seasonal traffic loads.

Despite the lack of significant transportation system improvements immediately in Town, the current draft of the Crystal Coast Area Long-Range Transportation Plan includes the following policy recommendations that should benefit the Town:

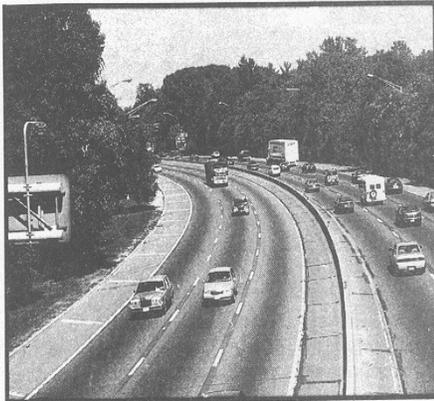
- Widening and other improvements to US Highway 70 at numerous locations between Raleigh and the Town. These improvements, if implemented, will encourage visitation to the Town from the Piedmont/Triangle area.
- Widening of portions of NC Highway 58 (Fort Macon Boulevard) that are currently two lanes to three. These improvements would help ensure that “bottlenecks” of traffic passing through the Town were reduced.



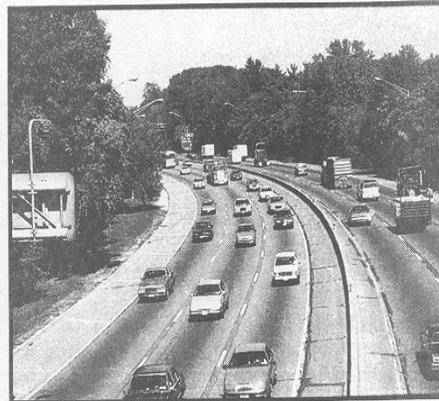
LOS A.



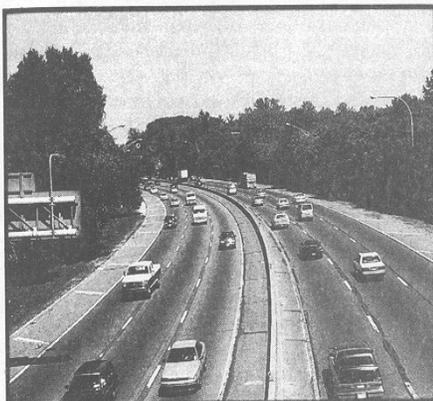
LOS D.



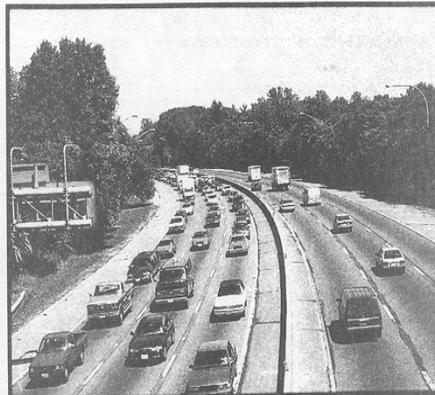
LOS B.



LOS E.



LOS C.



LOS F.

**Graphic Representation of Various Roadway Levels of Service**

## **6. Education**

As noted earlier in this Plan, the construction of the Morehead City Primary School to serve students from grades K through 3 in 1994 has provided sufficient capacity in all Carteret County Public Schools serving the Town through the planning period (i.e., through 2012).

Despite the projected increase in permanent population in the Town, the number of persons in the school-age population (i.e., ages 6 through 18) are not expected to increase significantly during the planning period and will not generate the need for additional school capacity.

## **7. Recreation**

As has been previously discussed in this Plan, the Town does not own or operate any non-shoreline related recreational sites. Furthermore, a 1999 study conducted by the Town in conjunction with East Carolina University found that a large majority of the Town's citizens do not favor spending public monies on a Town-sponsored recreation program or facilities, as the County and Morehead City provide numerous non-shoreline related facilities available for use of the Town's citizens. As the Town's permanent population and demographics (i.e., increasingly older and more wealthy) change over the planning period, however, the demand for recreation facilities and programs should be carefully monitored.

The Town maintains three regional and 11 local public shoreline access sites (see page 113 of this Plan for additional details). The three (3) regional shoreline access sites have a total of 417 parking spaces and one of these facilities has restroom/shower facilities. The 11 local public access sites are primarily located at the terminus of the Town's north-to-south streets which dead-end at the ocean. The town has used state grants to build dune-crossovers and walkways at these street ends, but there are parking spaces at only a select few. Current public shoreline access is sufficient to meet minimum CAMA and Section 33 (Beach Renourishment) program requirements regarding public shoreline access.

Despite the fact that shoreline access in Town meets minimum standards for shoreline access, the Town has long prided itself on its ability to provide the average citizen with access to the shore. With approximately 25,000 to 30,000 persons in Town on peak weekends, existing shoreline access sites are inadequate to meet demand, especially in regards to parking and facilities (e.g., shower/restrooms) and additional public access sites should be strongly considered.

Historically, one primary source of public shoreline access has been the three privately-owned but publicly-accessible fishing piers in Town - Triple S, Oceanna, and Sportsman's. These piers have been in operation for decades and provided public access to the shoreline and safe, convenient spots for fishing at a very modest cost, along with over 1,000 parking spots. Additionally, these piers serve as "anchors" of small, tourism-based, commercial hubs, providing convenience services, souvenirs, dining and related services to visitors and residents alike. With the recent, and dramatic, increase in property values in the Town, it is possible that one, two, or all three of these "semi-public" access sites may be purchased and redeveloped without continued public access during the planning period.

The likelihood that shoreline access could be restricted at the three aforementioned fishing pier sites and at other "semi-public" access sites in Town indicates that a Comprehensive Shoreline Access Plan is needed as soon as possible to evaluate the following questions and concerns:

- A) What are the minimum standards for public shoreline access acceptable to the Town, especially considering regulatory requirements regarding public access and the expected diminution of "semi-public" shoreline access?
- B) What is the best mix of legally, financially, and politically supportable planning options (e.g., regulation, density bonuses or other incentives, fee simple purchase, required easement dedication, etc.) that will ensure an adequate level of public shoreline access in the Town?

## **8. Water System**

As with most public services in the Town, use varies significantly based on season. Even at peak usage, however, the Town's water system experienced a peak of 1.64 million gallons per day (July 2002), or 65.8% of system capacity. System capacity and water pressure have been determined to be sufficient to meet the demand for new service connections and increased permanent residency through the planning period (i.e., approximately 2025), based on the infrastructure carrying capacity analysis, see page 184.

## **9. Wastewater Disposal/Sewer System**

As has been stated earlier in this Plan, the Town does not currently have a centralized, public sewer system. As was also noted earlier, a Design/Build/Own Action Plan for a centralized, Town-wide wastewater collection and treatment system has been completed by Infrastructure Management Group, Inc. (IMG) of Bethesda, Maryland. IMG has already conducted an initial economic and environmental feasibility analysis of a community-wide sewer system in Town and found it to be feasible of both accounts. However, the Town has opted not to address installation of a central sewer system in this manner.

Until a central sewer system is developed, privately operated, on-site treatment facilities called “package plants” and individual septic tanks will continue to provide wastewater disposal in the Town. The only private wastewater treatment systems currently anticipated during the planning period are package plants to address development within “The Circle” redevelopment area (see Map 15).

As indicated earlier in this Section of the Plan, the Town already has a gross residential density of approximately 8.3 housing units per acre and the Town has a significant coverage of impervious (i.e., hardened surfaces that do not allow seepage of rain water) surfaces. From a land use perspective, a centralized sewer system will increase land values and allow for greater site density. The Town should carefully evaluate its zoning ordinance in advance of the implementation of any centralized sewer system and ensure that desired density levels are not exceeded. As suggested earlier in this Plan, it is unlikely that the State would permit a centralized sewer system that presumes a higher gross density than currently exists in the Town, so distributing densities to the most appropriate and desired areas of Town is essential. The Town is currently working with WK Dickson on the preparation of a feasibility study and wastewater master plan to identify the options that are available to the town with regards to a central sewer system. As part of this effort, the Town will solicit substantial public input through the mailing of questionnaires and public hearings. It is too early at this point to determine whether the Town will move forward with the development of a Town-wide sewer system. Subsequent to the completion of the wastewater master plan, the Town should be able to make a more informed decision on this issue.

If the Town’s Zoning Ordinance is modified to ensure that current growth densities are not exceeded, a centralized sewage treatment system should provide a net benefit to the Town. This is due to the fact that failing private wastewater disposal systems are a significant contributor to high fecal coliform counts and a source of other pollutants, affecting the estuaries adjacent to the Town. Finally, a sewage system will increase property values in the Town, which will support the Town’s long-term economic well-being.

## **10. Stormwater Management/Drainage**

The quality and quantity of stormwater runoff is a serious concern in the Town. As was mentioned on page 91 of this Plan, the bacteriological water quality of Bogue Sound and the viability of shellfishing beds near the Town continue to decline, primarily due to the pollutant-and-nutrient laden stormwater discharges and wastewater system failures. Although the Town is not currently required to manage/treat stormwater and the fact that on-site septic systems, flat topography and minimal land available for stormwater retention/detention systems makes stormwater and drainage management

logistically difficult, some efforts to manage the quantity and quality of stormwater are warranted during the planning period.

The development of a centralized sewer system in the Town should provide a significant opportunity to improve stormwater management, due to the fact that land abutting and in Town rights-of-way currently used as septic drainfields and/or repair areas can be used to assist in collecting and settling stormwater. Additionally, pollutant discharges directly from on-site wastewater systems should be eliminated.

The Town should seriously consider additional efforts to manage stormwater, including the following:

- A) Adoption of a stormwater management ordinance and development of a stormwater management program that contains the following components:
  - i) Implement site development regulations to ensure reduction in nitrogen and phosphorous loads for new development; and
  - ii) Identify locations currently discharging significant loads of nitrogen and phosphorus and implement retrofitting opportunities; and
  - iii) Implement a public education campaign.
  
- B) Adoption of a stormwater utility ordinance and implementation of a stormwater utility. A stormwater utility would allow the Town to charge a small (generally 3 to 7 dollars per month to residential units, 50 to 100 dollars per month to commercial) fee to each existing water customer based on their approximate contribution to the Town's stormwater runoff problem. These funds, in turn, can be used to assist the Town in implementing a stormwater management program. Although grant funds, such as the Clean Water Management Trust Fund and the Wetland Restoration Program, are available to assist in the implementation of the above, it is likely that the Town will need additional trained and qualified staff and consulting assistance to implement the requirements of the above regulations over the 5 to 7 year planning period.

Currently, the Town is under contract with WK Dickson to prepare a comprehensive stormwater master plan. This effort will identify all stormwater problem areas within the Town and establish potential solutions for each identified area. These solutions will be ranked in terms of feasibility based on cost and benefit. In identifying which stormwater projects should be completed first, water quality and adverse environmental impacts will be taken into account.

## **11. Solid Waste**

The Town's contract with Waste Industries for residential refuse collection, Town-contracted and voluntary recycling services, and private, individually negotiated contracts for waste disposal for businesses should be in effect through the 2012 planning period. The regional landfill at Tuscarora, opened in 1994, has sufficient capacity to handle the Town's waste disposal needs through the planning period.

## **12. Law Enforcement**

According to Major Reeme of the Town's Police Department, the Department has only very minor capital and staffing needs during the 5 to 7 year planning period. These include routine equipment purchases and the procurement of six (6) mobile data terminals for police cruisers, to improve communications with the Department's dispatch and headquarters.

The Town currently has 18 sworn officers to serve a permanent population of approximately 1,900 persons and a peak seasonal population of approximately 25,000. The national average for Cities and Towns under 10,000 population is 3.2 officers per 1,000 population, which is obviously exceeded during off-season for the Town (Source: Federal Bureau of Investigation). The current staffing level is well justified, however, based on the seasonal population of the Town and relatively high incidence of crimes that can be associated with seasonal visitors.

## **13. Fire/Rescue Services**

According to Captain Simpson of the Atlantic Beach Fire/EMS Department, no significant changes are needed in regards to equipment and personnel during the planning period. The Department does plan to have a dive rescue team in place in 2006. The thirteen (13) paid firefighters and fifteen (15) volunteer firefighters should be adequate throughout the planning period (e.g., through 2012).

B. LAND USE/DEVELOPMENT GOALS AND IMPLEMENTING ACTIONS

This section of the will guide the development and use of land in Atlantic Beach. The future land use maps and policies are intended to support Atlantic Beach's and CAMA's goals. Specifically, this section includes goals, land use development policies, and the future land use map for the town. The future land use map and the specified development goals are based on the community concerns (identified on pages 11 and 12 of this plan) and the future needs/demands (identified in Section V (G) of this plan).

C. EXISTING DEVELOPMENT PROGRAM

The Town of Atlantic Beach maintains an active planning program which includes a staffed planning department, planning board, board of adjustment, and the Board of Commissioners. All of these will be actively involved in the implementation of this plan. Section 5.E., page 120 of this document specifies/describes existing plan, policies and regulations which will be instrumental in the implementation of this document. The planning decisions are based on and coordinated with these documents. The extensive list of land use related documents is indicative of the town's sensitivity to growth/development issues. The development of all land use related documents have been coordinated with applicable state and federal laws and regulations.

D. POLICIES/FUTURE IMPLEMENTING ACTIONS

It is intended that the policies included in this plan are consistent with the goals of CAMA. This plan addresses the CRC management topics for land use plans and complies with all state and federal rules and regulations. The following will serve as a guideline to assist in assuring that this land use plan will direct the development and use of land in a manner that is consistent with the management goal(s), planning objective(s), and land use plan requirements of this document. All policies/implementing actions shall be used for consistency review by appropriate state and federal agencies.

E. GUIDE FOR LAND USE DECISION MAKING

1. **Introduction**

Specifically, in implementing this plan, the Atlantic Beach Planning Board and Board of Commissioners will:

- Consult the Land Use Plan during the deliberation of all land use related issues, including the review of subdivision plats and site plans.

- Consider the following in deliberation of all zoning petitions:
  - Consider the policies and implementing actions of this plan and all applicable CAMA regulations in their decisions regarding land use and development (including 15A NCAC 7H).
  - All uses that are allowed in a zoning district must be considered. A decision to re-zone or not to re-zone a parcel or parcels of property cannot be based on consideration of only one use or a partial list of the uses allowed within a zoning district.
  - Zoning decisions will not be based on aesthetic considerations.
  - Requests for zoning changes will not be approved if the requested change will result in spot zoning. Spot zoning is a form of discriminatory zoning whose sole purpose is to serve the private interests of one of more landowners instead of furthering the welfare of the entire community as part of an overall zoning plan. Spot zoning is based on the arbitrary and inappropriate nature of a re-zoning change rather than, as is commonly believed, on the size of the area being re-zoned.
  - Zoning which will result in strip development should be discouraged. Strip development is a melange of development, usually commercial, extending along both sides of a major street. Strip development is often a mixture of auto-oriented enterprises (e.g., gas stations, motels, and food stands), and truck-dependent wholesale and light industrial enterprises along with the once-rural homes and farms that await conversion to commercial use. Strip development may severely reduce traffic-carrying capacity of abutting streets by allowing for excessive and conflicting curb cuts.
  - The concept of uniformity should be supported in all zoning deliberations. Uniformity is a basic premise of zoning which holds that all land in similar circumstances should be zoned alike; any different circumstances should be carefully balanced with a demonstrated need for such different treatment. Properly designed mixed use development is not considered to be at variance with the concept of uniformity.
  - Zoning regulations should be made in accordance with the Atlantic Beach Land Use Plan and designed to lessen congestion in the streets; to secure safety from fire, panic, and other dangers; to promote health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; and to

facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirements. The regulations shall be made with reasonable consideration, among other things, as to the character of the district and its peculiar suitability for particular uses, and with a view to conserving the value of buildings and encouraging the most appropriate use of land in Atlantic Beach's planning jurisdiction.

- Specifically, the Planning Board and Board of Commissioners should ask the following questions:

- Does Atlantic Beach need more land in the zone class requested?
- Is there other property in the town that might be more appropriate for this use?
- Is the request in accordance with the Atlantic Beach land use plan?
- Will the request have a serious impact on traffic circulation, parking space, sewer and water services, and other utilities?
- Will the request have an impact on other town services, including police protection, fire protection, or the school system?
- Is there a good possibility that the request, as proposed, will result in lessening the enjoyment or use of adjacent properties?
- Will the request, as proposed, cause serious noise, odors, light, activity, or unusual disturbances?
- Does the request raise serious legal questions such as spot zoning, hardship, violation of precedents, need for this type of use?
- Does the request adversely impact any CAMA AEC's or other environmentally sensitive areas including water quality?

It is intended that this plan will serve as the basic tool to guide development/growth in Atlantic Beach subject to the following:

- Atlantic Beach's ordinances should be revised from time to time to be consistent, as reasonably possible, with the recommendations of this plan.

- Land development regulations should be designed: to lessen congestion in the streets; to secure safety from fire, panic, and other dangers; to promote health and the general welfare; to provide adequate light and air; to prevent the overcrowding of land; to avoid undue concentration of population; to facilitate the adequate provision of transportation, water, sewerage, schools, parks, and other public requirements; to protect Atlantic Beach's AEC's; and to support redevelopment in the Circle area.
- Atlantic Beach will coordinate all development proposals with appropriate state and/or federal agencies.

**2. Policies Regarding Land Use and Development in AEC's**

Except for the following policies, Atlantic Beach accepts state and federal law regarding land uses and development in AEC's: (The policies which exceed 15A NCAC 7H will be identified). By reference, all applicable state and federal regulations are incorporated into this document. The AEC's within Atlantic Beach's planning jurisdiction are identified in Section 5.B.1.g., page 57. However, Atlantic Beach does not consider the following issues to be relevant at this time:

- Outstanding Resource Waters
- Development of Sound and Estuarine System Islands
- Peat or Phosphate Mining's Impact on any Resource

All policies and implementing actions are to be utilized by the State of North Carolina for consistency review. Note the following:

- No policy is subordinate to another.
- All management topics have equal status.
- The future land use map may show some areas in a developed category which may also include sensitive habitats or natural areas. The intent is that development should be designed/permitted to protect these areas through utilization of concepts such as cluster development. Development/project approval will be based on project design which avoids substantial loss of important habitat areas.

## F. LAND USE PLAN MANAGEMENT TOPICS

### 1. Introduction

The purposes of the Coastal Resources Commission (CRC) management topics are to ensure that CAMA Land Use Plans support the goals of CAMA, to define the CRC's expectations for the land use planning process, and to give the CRC a substantive basis for review and certification of CAMA Land Use Plans. Each of the following management topics (Public Access, Land Use Compatibility, Infrastructure Carrying Capacity, Natural Hazard Areas, Water Quality, and Local Areas of Concern) include three components: a management goal, a statement of the CRC's planning objective, and requirements for the CAMA Land Use Plan. These policies apply to all of Atlantic Beach's planning jurisdiction. The local concerns which should be addressed in this plan are identified on pages 11 and 12. These concerns and issues were utilized to develop the goals and objectives which are included in this plan. Most of the policies and implementing actions are continuing activities. In most situations, specific timelines are not applicable. Refer to page 178 for a list of those policies/implementing actions which have a specific schedule. The policies and implementing actions frequently utilize the following words: should, continue, encourage, enhance, identify, implement, maintain, prevent, promote, protect, provide, strengthen, support, work. The intent of these words is defined in Appendix III. Please note: Policies and Implementing Actions are numbered consecutively throughout this document with the letter "P" denoting a policy and the letter "I" denoting an implementing action.

### 2. Impact of CAMA Land Use Plan Policies on Management Topics

The development of this land use plan has relied heavily on the CAMA-prescribed existing suitability analysis which is included in Section 5.F of this document. It is intended that this document is supportive of the CAMA regulations for protection of AEC's (15A NCAC 7H). This plan is intended to support the Atlantic Beach vision statement which was developed based on the key issues identified on pages 11 and 12 of this document and the CAMA AEC regulations. No negative impacts are anticipated by the implementation of the goals, objectives, and policies which are included in this plan. Also, please refer to Tools for Managing Development, page 189.

Note: Unless specifically excepted, it is intended that all policies are consistent with (do not exceed) applicable state and federal requirements when state and federal requirements apply.

G. PUBLIC ACCESS

1. **Management Goal:** Atlantic Beach will protect, maintain and improve its existing shoreline access facilities for both ocean access and sound facilities.
2. **Planning Objective:** Atlantic Beach will endeavor to maintain adequate shoreline access for both year-round residents and seasonal users.
3. **Land Use Plan Requirements:** Atlantic Beach's policies/implementing actions will focus on existing facilities and not expanding the number of shoreline access sites. The following summarizes the town's policies/implementing actions for public access.

Policies

P.1 - The Town of Atlantic Beach supports the redevelopment of the "Circle" area as an action supportive of the town's provision of shoreline access.

P.2 - Atlantic Beach supports the frequency of shoreline access sites as defined by 15A NCAC 7M, Section .0300, Shorefront Access Policies.

P.3 - Atlantic Beach supports providing shoreline access for persons with disabilities.

P.4 - Atlantic Beach supports state/federal funding for piers for crabbing and fishing.

P.5 - Atlantic Beach supports the utilization of local, state, and federal funds for the acquisition of additional shoreline access sites.

P.6 - Atlantic Beach supports the donation of land for additional and expanded shoreline access sites.

Implementing Actions

I.1 - The Town of Atlantic Beach will update its 1999 Public Access - Preliminary Recreation Assessment and request Division of Coastal Management funding for the preparation of the plan. *Schedule: Fiscal Year 2008-2009.*

I.2 - Atlantic Beach will pursue private sources of funding for the development of shoreline access facilities, including the donation of land. *Schedule: Continuing Activity.*

I.3 - Atlantic Beach may pursue funding under the North Carolina CAMA Shoreline Access funding program (15A NCAC 7M, Section .0300, Shorefront Access Policies). *Schedule: Continuing Activity.*

I.4 - Atlantic Beach will pursue funding from the North Carolina Wildlife Commission for the provisions of soundside boat ramps. Emphasis should be placed on the west end of town. *Schedule: Continuing Activity.*

I.5 - The town's public access sites should be clearly marked. *Schedule: Continuing Activity.*

I.6 - Atlantic Beach will make all improved shoreline access facilities handicapped accessible. *Schedule: Continuing Activity.*

I.7 - The town will prepare a map for public distribution which clearly indicates the location of all shoreline access sites and associated public parking. Copies of the map will be placed in local businesses for distribution. *Schedule: Fiscal Year 2008-2009.*

I.8 - Atlantic Beach will pursue options for the increase of off-street parking for shoreline access sites. *Schedule: Continuing Activity.*

H. LAND USE COMPATIBILITY

1. **Management Goal:** Atlantic Beach will support land uses which are mutually compatible and which minimize adverse environmental impacts; avoid risks to public safety/welfare; and consider the limitations of land suitability.

2. **Planning Objectives:** Atlantic Beach's planning program/efforts will provide guidance to the local decision process while balancing development with a concern for protection of the town's natural resources.

3. **Land Use Plan Requirements:** Atlantic Beach's land use compatibility policies and implementing actions support the development, preservation of land uses as depicted on the future land use map. These actions reflect a desire for balanced residential and non-residential preservation and growth.

Policies - Residential

P.7 - Atlantic Beach supports the preservation of the "cottage" areas which are depicted on the Future Land Use Map, Map 20.

P.8 - Atlantic Beach supports residential development within commercial mixed-use areas as depicted on the future land use map.

P.9 - Atlantic Beach supports residential development which meets the 15A NCAC 7H minimum use standards.

P.10 - Atlantic Beach supports revisions to the North Carolina state statutes which would allow the local imposition of impact fees or special legislation to allow them within the town's planning jurisdiction. Note: Impact fees would be levied against land developers to establish a revenue source to support the additional demand for services generated by the people occupying the proposed developments such as roads, water and sewer infrastructure, and recreational facilities.

P.11 - Atlantic Beach will continuously monitor the impact which the construction of a central sewer system will have on the town.

P.12 - Atlantic Beach will restrict dense/intense development in areas where the town wishes to encourage/preserve lower density development.

#### Implementing Actions - Residential

I.9 - Atlantic Beach will review its zoning and subdivision ordinances to ensure consistency with the recommendations included in this plan (see pages 136, 137, and 138). **The town's zoning ordinance must be revised to attain the densities which are delineated on the Future Land Use Map, page 179.** *Schedule: Fiscal Year 2007-2008.*

I.10 - Atlantic Beach will support residential development at the following residential densities which are reflected on the future land use map, page 179 (see page 122 for descriptions of zoning districts and the land use categories discussion on page 181 for descriptions of desired uses and allowable building heights):

- (1) Low-density residential/1-6 units per acre.
- (2) Medium-density residential/7-10 units per acre.
- (3) High-density residential/over 10 units per acre.
- (4) Mixed use residential/over 10 units per acre.
- (5) Mixed use commercial/7-10 units per acre.
- (6) Conservation/green space - No development except buildings accessory to recreational use in the RS district. *Schedule: Continuing Activity.*

I.11 - In the “cottage” districts, the Town of Atlantic Beach will maintain buildings at the existing size, height, and density through enforcement of its zoning ordinance. *Schedule: Continuing Activity.*

I.12 - Atlantic Beach will permit residential development to occur in response to market needs provided that the following criteria are met:

- (1) Due respect is offered to all aspects of the environment.
- (2) If deficient community facilities and services are identified, the town will attempt to improve such to the point of adequately meeting demands.
- (3) Additional residential development will concurrently involve planning for improvements to community facilities and services if excess capacity does not exist within those facilities and services.
- (4) Residential development is consistent with other Atlantic beach policies and the land use map as contained in this plan update.

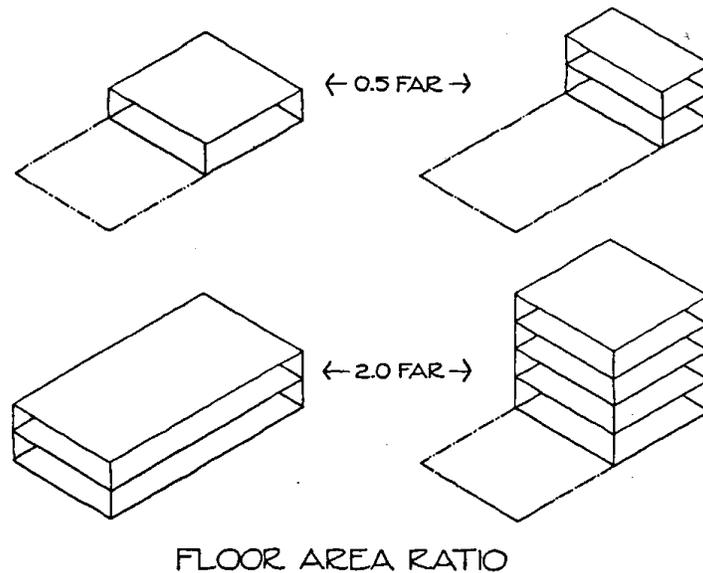
This implementing action will be enforced through the Atlantic Beach zoning and subdivision ordinances. *Schedule: Continuing Activity.*

I.13 - All re-zoning and subdivision approvals will consider the existing and future land use suitability maps and analyses which are included in this plan. *Schedule: Continuing Activity.*

I.14 - Atlantic Beach will review its zoning and subdivision ordinances and consider establishing floor area ratio requirements to ensure that development is consistent with the density requirements of this plan. *Schedule: Fiscal Year 2007-2008.*

The following defines floor area ratio: Floor area ratio is determined by dividing the gross floor area of all buildings on a lot by the area of that lot.

*Comment.* The floor area ratio (FAR) was developed as a more refined and adaptable measure of intensity than building coverage. It expresses in one measure, instead of several, the mathematical relation between volume of building and unit of land. However, FAR cannot replace more traditional bulk controls entirely. Often, it is not a sufficient height control nor does it regulate the placement of the building on the site.



I.15 - It is town policy to promote, foster, and encourage the redevelopment of old, poorly designed and underutilized areas. Redevelopment is preferred and deemed more important than development of currently undeveloped areas. Many developed areas are in poor condition with poor road design, lack of vegetation, dilapidated housing, mixed uses, etc. The town will continue a program of strict enforcement of the minimum code as a means to improve the quality of existing development. *Schedule: Continuing Activity.*

I.16 - Atlantic Beach will take an active supervisory role in all future redevelopment projects. All projects are required to consider the town's environmental policies and to address the town's other public needs, especially its needs for a sound street system. *Schedule: Continuing Activity.*

I.17 - Atlantic Beach will allow the reconstruction of any structures demolished by natural disaster or by other causes in accordance with all applicable federal, state and local regulations. *Schedule: Continuing Activity.*

I.18 - Atlantic Beach supports adoption by the U. S. Department of Housing and Urban Development of stricter standards for the construction of mobile homes which are to be located in the coastal zone. Such standards should increase wind resistant capabilities to a level consistent with that which is required for conventional site built housing. *Schedule: Continuing Activity.*

Policies - Commercial/Industrial

P.13 - The Town of Atlantic Beach opposes any heavy industrial development/land use within its planning jurisdiction and will allow light industrial development which is consistent with the town's zoning ordinance.

P.14 - The Town of Atlantic Beach supports commercial/mixed-use redevelopment of “The Circle” area.

P.15 - The Town of Atlantic Beach supports the concept of commercial/residential mixed use in all mixed use commercial areas as shown on the future land use map, see page 179.

P.16 - The Town of Atlantic Beach opposes the construction of any privately-owned signs (including commercial signs) in areas of environmental concern as defined by 15A NCAC 7H.

P.17 - The Town of Atlantic Beach will support commercial development within AECs which meets the 15A NCAC 7H minimum use standards, Atlantic Beach zoning and subdivision requirements, and all policies contained within this plan.

P.18 - The Town of Atlantic Beach desires that new commercial development blend with surrounding neighborhoods.

P.19 - The Town of Atlantic Beach has concerns with potential offshore drilling and will oppose drilling operations and onshore support facilities for such operations.

P.20 - The Town of Atlantic Beach will oppose the construction of any nuclear power plants within Carteret County.

P.21 - The Town of Atlantic Beach will support commercial/recreational fishing and marinas as significant contributors to the local economy.

#### Implementing Actions - Commercial/Industrial

I.19 - The Town of Atlantic Beach will enforce its zoning regulations for type and location of commercial land uses (see the future land use map, Map 20). *Schedule: Continuing Activity.*

I.20 - The Town of Atlantic Beach will review its zoning and subdivision ordinance and revise as necessary to ensure consistency with the policies and implementing actions included in this plan. This review will focus on the following:

- Significant land use compatibility problems;
- Significant water use compatibility identified problems including those in the applicable Division of Environmental Management basinwide plan;
- Significant problems that have resulted from unplanned development and that have implications for future land use, water use, or water quality;

- An identification of areas experiencing or likely to experience changes in predominant land uses;
- Significant water quality conditions and the connection between land use and water quality. *Schedule: Fiscal Year 2007-2008.*

I.21 - The Town of Atlantic Beach will rely on its zoning and subdivision ordinances and the CAMA permitting process to protect AECs. *Schedule: Continuing Activity.*

I.22 - All commercial development efforts will be coordinated with the Town of Atlantic Beach Planning Board. *Schedule: Continuing Activity.*

I.23 - Commercial development will be coordinated with the Town of Atlantic Beach updated shoreline access plan. *Schedule: Continuing Activity.*

I.24 - In guiding commercial development, the Town of Atlantic Beach will support the following locational guidelines:

- Encourage renovation of commercial areas including emphasis on “The Circle” area.
- Encourage location of new commercial/retail uses in vacant commercial buildings.
- Encourage mixed residential/commercial and recreational development. *Schedule: Continuing Activity.*

I.25 - The Town of Atlantic Beach Storm Hazard Mitigation, Post-Disaster Recovery, and Evacuation Plan provides policies for responding to hurricanes or other natural disasters. Those policies address reconstruction needs. The town will allow the reconstruction of any commercial structures demolished by natural disaster when the reconstruction complies with all applicable local, state, and federal regulations. *Schedule: Continuing Activity.*

I.26 - The Town of Atlantic Beach will review and possibly amend its zoning ordinance to reduce/control pollution from commercial development. *Schedule: Fiscal Year 2007-2008.*

I.27 - During its review of proposed commercial development, the Town of Atlantic Beach will consider the following: (1) a preference to have commercial and other intense land uses that generate a substantial amount of traffic and other off-site impacts develop as self-contained areas having minimal ingress and egress to main traffic routes; (2) a preference to have the uses described above located with entrances and exits along streets and roads that are perpendicular to the nearest main traffic route; and (3) a preference to redevelop areas in poor condition. *Schedule: Continuing Activity.*

## Policies - Conservation

P.22 - The Town of Atlantic Beach supports 15A NCAC 7H for the protection of all AECs.

P.23 - The Town of Atlantic Beach supports the regulation of off-road vehicles in the beach/ocean hazard areas.

P.24 - The Town of Atlantic Beach opposes all projects which would block or impair existing navigation channels, increase shoreline erosion in non-ocean hazard areas, private deposition of spoils below mean high tide, cause adverse water circulation patterns, violate water quality standards, or cause degradation of shellfish waters.

P.25 - In the event of a “blow-out,” the Town of Atlantic Beach supports inlets being filled or returned to their original condition.

P.26 - The Town of Atlantic Beach supports preservation of its maritime forest areas.

P.27 - The Town of Atlantic Beach opposes the location of floating homes within its jurisdiction.

P.28 - Except for Money Island, the Town of Atlantic Beach opposes the development of sound and estuarine islands.

P.29 - The Town of Atlantic Beach supports the construction of all marinas, docks, and piers which minimize or eliminate adverse effects on coastal wetlands and subaquatic vegetation and comply with 15A NCAC 7H minimum use standards.

P.30 - Except as otherwise permitted in this plan, the Town of Atlantic Beach will not support residential and commercial development in coastal wetlands.

P.31 - The Town of Atlantic Beach will support residential and commercial development which meets 15A NCAC 7H use standards in estuarine shoreline, estuarine water, and public trust areas.

P.32 - The Town of Atlantic Beach will support the preservation and maintenance of its environmentally sensitive areas while promoting tourism and capitalizing on its natural resources.

P.33 - The Town of Atlantic Beach supports state and federal regulations for the preservation/protection of freshwater (404) and coastal wetlands.

## Implementing Actions - Conservation

I.28 - The Town of Atlantic Beach will review its zoning and subdivision ordinances to ensure compliance with policies P.21 through P.32. *Schedule: Fiscal Year 2007-2008.*

I.29 - The Town of Atlantic Beach will utilize printed materials and public service announcements to educate the public about environmentally sensitive areas and what actions may be taken to support preservation. *Schedule: Continuing Activity*

I.30 - The Town of Atlantic Beach will review all development proposals to ensure the protection of Hoop Hole Creek (see page 69). *Schedule: Continuing Activity.*

I.31 - The Town of Atlantic Beach will enforce/pursue the following actions to regulate floating homes and both open water and upland marina development:

- (1) Atlantic Beach considers boating activities an extremely important part of its tourist industry and overall economy. Subject to the policies stated herein and the town's zoning ordinance, the town does not oppose the construction of both open water and upland marinas. *Schedule: Continuing Activity.*
- (2) The Town of Atlantic Beach supports revisions to the zoning ordinance or adoption of a separate ordinance to prohibit floating homes and live-aboard boats. *Schedule: Fiscal Year 2007-2008.*
- (3) The construction of all marinas, docks and piers shall minimize or eliminate adverse effects on coastal wetlands and subaquatic vegetation and comply with 15A NCAC 7H minimum use standards (see page 72). *Schedule: Continuing Activity.*
- (4) Atlantic Beach will allow construction of dry stack storage facilities for boats associated with or independent of marinas. All applicable zoning, subdivision, 15A NCAC 7H, or other regulations must be satisfied. Water access to dry stack storage facilities should not disturb active shellfishing areas or subaquatic vegetation. *Schedule: Continuing Activity.*
- (5) Existing marinas, docks and piers may be reconstructed to their prior size so long as all local ordinances and other applicable policies of this plan are satisfied and met when reconstruction occurs. *Schedule: Continuing Activity.*

I.32 - The Town of Atlantic Beach will protect ocean hazard areas by the following actions:

- (1) Atlantic Beach will support only uses within the ocean hazard areas which are allowed by 15A NCAC 7H and are consistent with the town's zoning and land protection ordinances. *Schedule: Continuing Activity.*
- (2) Atlantic Beach supports the deposit of dredge spoil by the US Army Corps of Engineers on the beach and relocation as the preferred erosion control measures for ocean hazard areas. *Schedule: Continuing Activity.*
- (3) The frontal and secondary dunes are important to the town; they protect development from storm damage and wind erosion. When possible in redevelopment areas, the town will require large lot sizes. *Schedule: Continuing Activity.*
- (4) The Town of Atlantic Beach will vigorously enforce Article X of the town's zoning ordinance which establishes stringent requirements for the preservation and protection of sand dunes and vegetation thereon. *Schedule: Continuing Activity.*
- (5) The town supports state requirements pertaining to shoreline stabilization in ocean hazard areas. *Schedule: Continuing Activity.*
- (6) Atlantic Beach will support the limited adjustment of the CAMA setback line in association with ongoing deposit of sand from dredge spoil projects and the establishment of new permanent dune and vegetation lines. However, it is understood that this action will not impact permit decisions regarding CAMA setback line in ocean hazard areas unless the Coastal Resources Commission modifies the State use standards for this AEC. *Schedule: Continuing Activity.*

I.33 - Except in ocean hazard areas, the Town of Atlantic Beach will not oppose bulkhead construction within its jurisdiction as long as construction fulfills the use standards set forth in 15A NCAC 7H and the town zoning ordinance. The town is opposed to all bulkhead construction in ocean hazard areas. *Schedule: Continuing Activity.*

I.34 - Atlantic Beach recognizes the uncertainties associated with sea level rise. Although the rate of rise is difficult to predict, the town will support the following actions:

- (1) The Town of Atlantic Beach will cooperate with county, state, and federal efforts to inform the public of the anticipated effects of sea level rise. *Schedule: Continuing Activity.*
- (2) The Town of Atlantic Beach will continuously monitor available information on sea level rise and revise as necessary all local building and land use related ordinances to establish setback standards, long-term land use plans, density controls, buffer vegetation protection requirements, and building designs which will facilitate the movement of structures. *Schedule: Continuing Activity.*
- (3) Atlantic Beach will allow the construction of bulkheads which satisfy 15A NCAC 7H in all areas, except ocean hazard areas, to protect structures and property from rising sea level. *Schedule: Continuing Activity.*

I.35 - The Town of Atlantic Beach will implement the following to protect maritime forests:

- (1) The Town of Atlantic Beach will require large lot sizes in maritime forest areas and limit the amount of clearing of vegetation to only as much as necessary to site a home and provide access. This will be supported by the town's zoning and subdivision ordinance. *Schedule: Continuing Activity.*
- (2) The Town of Atlantic Beach will enforce Article VIII of the town's zoning ordinance which establishes stringent requirements for lot clearing. *Schedule: Continuing Activity.*
- (3) The Town of Atlantic Beach will review and strengthen its dune protection ordinance. *Schedule: Fiscal Year 2008-2009.*

#### Policies - Stormwater Control

P.34 - The Town of Atlantic Beach supports reducing soil erosion, runoff, and sedimentation to minimize adverse effects on surface and subsurface water quality.

P.35 - The Town of Atlantic Beach supports the improvements of surface water quality to protect fragile areas and to provide clean water for recreational purposes.

P.36 - The Town of Atlantic Beach supports the use of "best management practices" to minimize the rapid release of pollutants into coastal waters (see page 115, Erosion and Sedimentation).

P.37 - The Town of Atlantic Beach supports reducing impervious surface areas for existing and proposed developments.

Implementing Actions - Stormwater Control

I.36 - The Town of Atlantic Beach will adopt a local stormwater control ordinance. The ordinance will support the following basic phases:

- (1) Site Planning and Design Development Phase,
- (2) Assessment Phase,
- (3) Control Selection/Design Phase,
- (4) Certification/Verification/Approval Phase,
- (5) Implementation/Construction Phase,
- (6) Final Stabilization/Termination Phase.
- (7) Incorporation of the following EPA objectives:
  - Public Education and Outreach on Stormwater Impacts.
  - Public Involvement and Participation.
  - Elicit Discharge Detection and Elimination.
  - Construction Site and Stormwater Runoff Control.
  - Post-Construction Stormwater Management, and New Development or Redevelopment.
  - Pollution Prevention and Good Housekeeping for Municipal Operations.

*Schedule: Fiscal Year 2008-2009.*

I.37 - The stormwater control ordinance will require xeriscaping (native vegetation) in estuarine shoreline areas. *Schedule: Continuing Activity.*

I.38 - The Town of Atlantic Beach will support existing state regulations relating to stormwater runoff resulting from development (Stormwater Disposal Policy 15 NCAC 2H.001-.1003) through enforcement of the town's subdivision ordinance. *Schedule: Continuing Activity.*

I.39 - The Town of Atlantic Beach will cooperate with the NCDOT, the North Carolina Division of Water Quality, and other state agencies in mitigating the impact of stormwater runoff on all conservation classified areas. The town will support the Division of Water Quality stormwater runoff retention permitting process through its zoning permit system by verifying compliance prior to issuance of a zoning permit. *Schedule: Continuing Activity.*

I.40 - The Town of Atlantic Beach will attempt to apply for grant funds, and utilize Powell Bill funds, to improve stormwater drainage systems associated with existing rights-of-way. *Schedule: Continuing Activity.*

I.41 - The Town of Atlantic Beach will support existing state regulations relating to stormwater runoff resulting from development (Stormwater Disposal Policy 15 NCAC 2H.001-.1003) through enforcement of the town's subdivision ordinance. *Schedule: Continuing Activity.*

I.42 - The Town of Atlantic Beach will emphasize elimination of stormwater drainage problems for those areas delineated on Map 18. *Schedule: Continuing Activity.*

I.43 - The Town of Atlantic Beach will support the State of North Carolina shoreline buffer rules in the review and approval of all development proposals (see page 120). *Schedule: Continuing Activity.*

## I. INFRASTRUCTURE CARRYING CAPACITY

1. **Management Goal:** The Town of Atlantic Beach supports the construction of adequate infrastructure systems throughout the town including water, sewer, and transportation systems.
2. **Planning Objective:** The Town of Atlantic Beach's planning objective is to support infrastructure systems which are compatible with the town's environmentally sensitive areas including AECs and fragile areas.
3. **Land Use Plan Requirements:** The Town of Atlantic Beach's infrastructure carrying capacity policies and implementing actions are intended to provide for the town's peak population. The following provides the policies/implementing actions for infrastructure carrying capacity.

### Policies

P.38 - The Town of Atlantic Beach supports the provision of central sewer service (collection and treatment) throughout the town.

P.39 - The Town of Atlantic Beach supports maintenance of its central water supply system including wells and storage tanks.

P.40 - The Town of Atlantic Beach supports transportation projects which will improve the efficiency of its transportation system including pedestrian and bicycle access safety.

## Implementing Actions

I.43 - The Town of Atlantic Beach will pursue all available state and federal funding to continue the study of viable options for the establishment of economically feasible/environmentally acceptable central sewer service. *Schedule: Continuing Activity.*

I.44 - The Town of Atlantic Beach supports the construction of package treatment plants that are approved and permitted by the State Division of Environmental Management and by the Carteret County Health Department/Division of Health Services. If any package plants are approved, Atlantic Beach supports the requirement of a specific contingency plan specifying how ongoing private operation and maintenance of the plant will be provided, and detailing provisions for public assumption of the plant should the private operation fail. Additionally, it is the town's policy that existing package treatment plants continue to operate but must be tied into the municipal sewage treatment system upon its completion. The town will revise its zoning and subdivision ordinances to require that, as part of the development approval process, ongoing operational plans be provided and provisions for incorporation of package treatment plants into a central sewer system be specifically approved. *Schedule: Continuing Activity and revise zoning and subdivision ordinances Fiscal Year 2007-2008.*

I.45 - The Town of Atlantic Beach will promote water saving devices and incorporate appropriate modifications to its existing water rate structure. *Schedule: Fiscal Year 2008-2009.*

I.46 - Atlantic Beach will conserve its surficial groundwater resources by supporting CAMA and NC Division of Environmental Management stormwater runoff regulations, and by coordinating local development activities involving chemical storage or underground storage tank installation/abandonment with Carteret County Emergency Management personnel and the Groundwater Section of the NC Division of Environmental Management. *Schedule: Continuing Activity.*

I.47 - Atlantic Beach will encourage and support water conservation efforts. This will include limiting the maximum output of each town well to a rate which will ensure that the town's water conservation policies will be met. Motels and rental units will be requested to post notices encouraging water conservation by tourists. *Schedule: Continuing Activity.*

I.48 - The Town of Atlantic Beach will support efforts by Carteret County to ensure that aquifer recharge areas are adequately protected. *Schedule: Continuing Activity.*

I.49 - The Town of Atlantic Beach recognizes the potential for well contamination from salt water intrusion due to over pumping of individual wells. The town will continuously investigate measures which may be taken to avoid such consequences. Atlantic Beach will support state and federal groundwater research, monitoring, and management programs. *Schedule: Continuing Activity.*

I.50 - The Town of Atlantic Beach will pursue NC Department of Transportation Bicycle and Pedestrian Planning Grant Funds to develop a comprehensive pedestrian/bicycle plan. *Schedule: Fiscal Year 2009-2010.*

I.51 - The Town of Atlantic Beach will support the transportation improvements identified in Section VI, Plan for the Future - A.5., Transportation, page 139. *Schedule: Continuing Activity.*

I.52 - The Town of Atlantic Beach will review its zoning and subdivision ordinances to ensure support of mixed use development which will aid in reducing adverse impacts from traffic (see page 139). *Schedule: Continuing Activity.*

I.53 - The Town of Atlantic Beach will support the development of a third bridge from the mainland to Bogue Banks, initially called for to connect the Salter Path/Indian Beach area to the mainland and included in the 1993-1999 NCDOT Transportation Improvement Plan (TIP). *Schedule: Continuing Activity.*

I.54 - The Town of Atlantic Beach will consider studying the feasibility and cost-effectiveness of seasonal trolley service, water taxi service, pedestrian improvements, and/or other methods of transportation system improvement that do not involve significant investments in new roadway infrastructure as a method of reducing the increase in seasonal traffic loads. *Schedule: Continuing Activity.*

J. NATURAL HAZARD AREAS

1. **Management Goal:** The Town of Atlantic Beach will conserve and maintain its barrier dunes, beaches, floodplains, storm surge areas, coastal wetlands, estuarine shorelines, and other coastal features (refer to 15A NCAC 7H) for their natural protection features. Refer to the Conservation policies and implementing actions on pages 159 to 162.
2. **Planning Objective:** The Town of Atlantic Beach will acknowledge and protect all natural hazard areas in its review and approval of proposals for development, including redevelopment activities.

3. **Land Use Plan Requirements:** The Town of Atlantic Beach recognizes that the protection of its natural hazard areas is essential to the community's public health, safety, welfare, and economic stability. The following are Atlantic Beach's policies/implementing actions for natural hazard areas.

#### Policies

P.41 - The Town of Atlantic Beach supports the protection of its natural hazard areas which are defined in this plan and by 15A NCAC 7H. Please refer to the Conservation policies on page 159.

P.42 - Atlantic Beach supports the relocation of structures endangered by erosion, if the relocated structure will be in compliance with all applicable Federal, State, and local policies and regulations.

P.43 - The Town of Atlantic Beach supports its hazard mitigation plan which was adopted in January 2005 (refer to page 128).

P.44 - The Town of Atlantic Beach supports beach renourishment efforts at least once every eight to ten years. NOTE: Implementation of this policy is essential for the following reasons, including protection of natural hazard areas:

- Protection from land loss, due to erosion.
- Elimination of the need for hardened/engineered erosion protection structures, such as jetties and seawalls.
- Increased public safety, due to protection of private property and roads needed for use by emergency services in a storm/disaster event.
- Recreational benefits, due to increased shoreline availability.
- Increased business and tax revenues due to attractiveness and availability of beachfront.
- Enhanced property values.
- Increased property tax revenues.
- Job creation.
- Improvement of habitat for sea turtles, shore birds, and shoreline vegetation, if projects are properly designed.
- Aesthetic benefits.

P.45 - The Town of Atlantic Beach supports programs designed to foster development and building practices that will minimize flood damage from storms and erosion.

P.46 - The Town of Atlantic Beach acknowledges and endorses the 404 wetlands permit process as defined by the Corp of Engineers' 1987 Manual for Wetlands Identification.

## Implementing Actions

I.55 - The Town of Atlantic Beach will permit the redevelopment of developed areas provided all applicable policies, regulations, and ordinances are complied with. All redevelopment should be designed to withstand natural hazards. *Schedule: Continuing Activity.*

I.56 - Atlantic Beach will continue to enforce its existing zoning and flood damage prevention ordinances and follow the storm hazard mitigation plan. *Schedule: Continuing Activity.*

I.57 - The Town of Atlantic Beach will support and implement the community rating system which allows for reduced flood insurance rates. *Schedule: Continuing Activity.*

I.58 - The Town of Atlantic Beach will utilize the future land use map and its zoning ordinance to control development. The land use map and any zoning changes will be coordinated with the land suitability map (see Map 19, page 133). *Schedule: Continuing Activity.*

I.59 - The Town of Atlantic Beach will continue to enforce its dune protection ordinance (see page 127) and revise the ordinance when necessary to ensure continued effectiveness. *Schedule: Continuing Activity.*

I.60 - To regulate development in natural hazard areas, the Town of Atlantic Beach will support the densities indicated on the future land use map, page 179. *Schedule: Continuing Activity.*

I.61 - The Town of Atlantic Beach will continue to enforce its Beach and Shoreline Regulations and update them as necessary to ensure their continued effectiveness (see page 122). *Schedule: Continuing Activity.*

I.62 - The Town of Atlantic Beach will support the implementing actions for sea level rise contained in I.34, page 161. *Schedule: Continuing Activity.*

## K. WATER QUALITY

1. **Management Goal:** In keeping with the Town of Atlantic Beach vision statement (see page 12), the town will protect its environmental assets to preserve sound and ocean water quality. This includes consideration of the waters in all coastal wetlands, estuarine waters, and both natural and man-made drainage corridors.

2. **Planning Objective:** The Town of Atlantic Beach's water quality planning objective is to adopt/enforce implementing actions which will support the White Oak River Basin water quality management plan and to maintain water quality and improve/eliminate impaired waters.
3. **Land Use Plan Requirements:** The following policies/implementing actions are intended to control nonpoint discharges and to protect shellfishing waters. The reader should refer to I.14, floor area ratio requirements, page 155; the conservation policies/implementing actions, page 159; and the stormwater policies/implementing actions, page 162.

### Policies

P.47 - The Town of Atlantic Beach supports the goals of the White Oak River Basin Water Quality Management Plan (see page 85).

P.48 - The Town of Atlantic Beach will oppose all aquaculture activities which will have a negative impact on water quality.

P.49 - The Town of Atlantic Beach supports the guidelines of the Coastal Area Management Act and the efforts and programs of the NC Department of Environment and Natural Resources, Division of Coastal Management and the Coastal Resources Commission to protect/preserve the coastal wetlands, estuarine waters, estuarine shorelines, 404 wetlands, and public trust waters of the Town.

P.50 - The Town of Atlantic Beach supports commercial and recreational fishing and will cooperate with other local governments and state and federal agencies to control pollution to improve water quality so that commercial and recreational fishing will increase.

P.51 - The Town of Atlantic Beach recognizes the value of water quality maintenance to the protection of fragile areas and supports the control of stormwater runoff to aid in the preservation of water quality. The Town will support existing state regulations relating to stormwater runoff resulting from development (Stormwater Disposal Policy 15 NCAC 2H.001-.1003 and CAMA rule 15A NCAC 7H.0205-.2008, see page 59).

P.52 - The Town of Atlantic Beach supports the policy that all public and private projects will be designed to limit stormwater runoff into coastal waters and areas of environmental concern, see Map 9, page 62.

P.53 - The Town of Atlantic Beach supports the following actions by the General Assembly and the Governor:

- Sufficient state funding should be appropriated to initiate a program of incentives grants to address pollution of our rivers from both point sources and nonpoint sources.
- An ongoing source of state funding should be developed to provide continuous support for an incentives grant program.
- The decision-making process for the award of incentives grants should involve river basin organizations representing local governments and other interest groups in the review of all applications for state funding.
- The ongoing effort of the Department of Environment and Natural Resources to develop administrative rules implementing the White Oak River Basin Management Strategy should continue to involve local government officials in the development, review, and refinement of the proposal.

#### Implementing Actions

I.63 - The Town of Atlantic Beach will require the preparation/approval of a water quality control statement for all proposed developments. The statement will specifically define how the following will be addressed:

- Use watershed-based land use planning.
- Protect sensitive natural areas, including coastal wetlands.
- Establish buffer network.
- Minimize impervious cover in site design.
- Limit erosion during construction.
- Maintain coastal growth measures.
- Restoration of impaired waters.
- Management of the cause and sources of pollution to ensure the protection of those waters currently supporting their uses allowing for reasonable economic growth.
- Reduction of nutrients in Atlantic Beach waters.

This implementing action requirement will be addressed in the update of the Town's zoning and subdivision ordinances (I.28, page 160) and in the adoption of a stormwater control ordinance (I.36, page 163). *Schedule: Fiscal Year 2007-2008 and Fiscal Year 2008-2009).*

I.64 - The Town of Atlantic Beach will revise its zoning ordinance to regulate aquaculture activities. *Schedule: Fiscal Year 2007-2008.*

I.65 - The Town of Atlantic Beach will revise its zoning ordinance to regulate mooring fields and floating homes (see pages 72-76 for definitions of mooring fields and floating homes). *Schedule: Fiscal Year 2007-2008.*

I.66 - The Town of Atlantic Beach will review and amend the local zoning ordinance with regard to underground chemical and gasoline storage regulations to ensure a minimum of risk to local groundwater resources. *Schedule: Fiscal Year 2007-2008.*

I.67 - The Town of Atlantic Beach will continuously enforce, through the development and zoning permit process, all current regulations of the NC State Building Code and NC Division of Health Services relating to building construction and septic tank installation/replacement in areas with soils restrictions. *Schedule: Continuing Activity.*

I.68 - Through its public awareness program (see I.29, page 160 and I.47, page 165) and preparation of a stormwater control ordinance (see I.36, page 163), the Town of Atlantic Beach will support the following water quality and water conservation related actions:

- Avoid planting turf in areas that are hard to water such as steep inclines and isolated strips along sidewalks and driveways.
- Use the garbage disposal sparingly. Compost instead and save gallons every time.
- Plant during the spring and fall when the watering requirements are lower.
- Use a layer of organic mulch around plants to reduce evaporation and save hundreds of gallons of water a year.
- Divide your watering cycle into shorter periods to reduce runoff and allow for better absorption every time you water.
- Only water your lawn when needed. You can tell this by simply walking across your lawn. If you leave footprints, it is time to water.
- Adjust your lawn mower to a higher setting. Longer grass shades root systems and holds soil moisture better than a closely clipped lawn.
- Use porous materials for walkways and patios to keep water in your yard and prevent wasteful runoff.
- Direct downspouts and other runoff towards shrubs and trees, or collect and use for your garden.

- Water your summer lawns once every three days and your winter lawn once every five days.
- Reduce the amount of grass in your yard by planting shrubs, and ground cover with rock and granite mulching.
- Don't water your lawn on windy days. After all, sidewalks and driveways don't need water.
- When watering grass on steep slopes, use a soaker hose to prevent wasteful runoff.
- While fertilizers promote plant growth, they also increase water consumption. Apply the minimum amount of fertilizer needed.
- Next time you add or replace a flower or shrub, choose a low water use plant for year-round landscape color and save up to 550 gallons each year.
- Landscape with Xeriscape trees, plants and groundcovers. Call your local conservation office for more information about these water thrifty plants.
- Water only as rapidly as the soil can absorb the water.
- Aerate your lawn. Punch holes in your lawn about six inches apart so water will reach the roots rather than run off the surface.
- Have your plumber re-route your gray water to trees and gardens rather than letting it run into the sewer line. Check with your city codes, and if it is not allowed in your area, start a movement to get that changed.

*Schedule: Continuing Activity and implementing action I.36, page 163.*

L. LOCAL AREAS OF CONCERN

1. **Management Goal:** The Town of Atlantic Beach supports local concern policies/ implementing actions which will strengthen the Town's planning program and respond to the overall goals of CAMA.
2. **Planning Objective:** The planning objective is to address local concern policies and implementing actions which may not be specifically addressed in the CAMA Land Use Plan guidelines.

3. **Land Use Plan Requirements:** The following policies/implementing actions focus on areas of local concern to specifically address cultural, historical, and scenic areas; economic development; general health and human services needs; redevelopment; and funding options.

Policies - Cultural, Historical, and Scenic Areas

P.54 - The Town of Atlantic Beach does not have any nationally significant historic sites within its jurisdiction, but it will strive to protect any discovered sites.

P.55 - The Town of Atlantic Beach will support preservation of the cultural significance of “The Circle” area.

P.56 - The Town of Atlantic Beach will support preservation /protection of the Fort Macon State Park.

P.57 - The Town of Atlantic Beach will support preservation/protection of the estuarine, inlet, and ocean shoreline areas as valuable scenic assets.

P.58 - The Town of Atlantic Beach supports the North Carolina Aquarium in Pine Knoll Shores in their efforts to provide a regional and cultural destination.

Implementing Actions - Cultural, Historical, and Scenic Areas

I.69 - The Town of Atlantic Beach will emphasize the protection of scenic areas in the update of its 1999 Public Access - Preliminary Recreation Assessment (see I.1). *Schedule: Fiscal Year 2008-2009.*

I.70 - The Town of Atlantic Beach will guide/encourage development and redevelopment to protect any historic properties identified within the Town. *Schedule: Continuing Activity.*

I.71 - The Town of Atlantic Beach will coordinate all Town public works projects with the NC Division of Archives and History to ensure the identification and preservation of significant archaeological sites. *Schedule: Continuing Activity.*

Policies - Economic Development

P.59 - The Town of Atlantic Beach supports the economic development efforts of the Carteret County Tourism Development Authority.

P.60 - The Town of Atlantic Beach supports redevelopment of “The Circle” area as essential to the Town’s economic growth.

P.61 - The Town of Atlantic Beach supports the following development/growth objectives as crucial to effective economic development:

- Support development of a central sewer collection and treatment system.
- Protect maritime forest and dunes areas.
- Maintain existing overall average residential density.
- Redevelop deteriorated residential and commercial areas.
- Maintain an adequate water supply.
- Improve traffic flow, especially on NC 58.
- Continuing regular, periodic deposit of dredge spoil projects in conjunction with the Corps of Engineers.

#### Implementing Actions - Economic Development

I.72 - The Town of Atlantic Beach will review its zoning and subdivision ordinances and revise, if necessary, to accommodate redevelopment of “The Circle” area. *Schedule: Fiscal Year 2007-2008.*

I.73 - The Town of Atlantic Beach will support the activities of the NC Division of Travel and Tourism. Specifically, the monitoring of tourism-related industry, efforts to promote tourism-related commercial activity, and efforts to enhance and provide shoreline resources. *Schedule: Continuing Activity.*

I.74 - The Town of Atlantic Beach will support mixed-use development through its zoning ordinance. The ordinance will be reviewed and amended, as necessary, to support mixed-use (residential/non-residential) development. *Schedule: Fiscal Year 2007-2008.*

I.75 - The Town of Atlantic Beach is receptive to state and federal programs, particularly those which provide improvements to the Town. The Town will continue to support fully such programs, especially the following: North Carolina Department of Transportation road and bridge improvement programs, environmental protection, tourism, planning, the US Army Corps of Engineers regulatory and permitting efforts, dredging and channel maintenance by the US Army Corps of Engineers, the North Carolina shoreline access grant program, flood insurance, and federal and state projects which provide efficient and safe boat access for commercial and sport fishing. *Schedule: Continuing Activity.*

I.76 - The Town of Atlantic Beach considers tourism to be the cornerstone of its economy and will implement the following to improve opportunities for tourism:

- The Town will continue to support the activities of the Carteret County Tourism Development Bureau and the North Carolina Division of Travel and Tourism.
- The Town's development priorities and goals of environmental and resource protection clearly state its strong desire to encourage and promote tourism. This policy will be implemented through the network of conservation-related policies contained in this plan.  
*Schedule: Continuing Activity.*

I.77 - Industrial development will not be allowed in estuarine shoreline, estuarine water, and public trust areas. In other areas of Town, light manufacturing activities which are permitted by the Town's zoning ordinance will be allowed. *Schedule: Continuing Activity.*

Policies - General Health and Human Service Needs

P.62 - The Town of Atlantic Beach will support the development of the following community facilities:

- New municipal administration building/police department/fire station complex as circumstances dictate.
- Construction of a sewage collection and treatment system.
- Expansion of the town's water system to include supply wells and storage tanks.
- Stormwater drainage facilities.
- Construction of additional shoreline access facilities.
- State and local transportation facilities, including roads.
- Construction of general use year-round recreational facilities.
- Extension of electrical utilities.

P.63 - The Town of Atlantic Beach will implement its Hazard Mitigation Plan to improve public safety in the event of a natural disaster.

P.64 - The Town of Atlantic Beach supports a comprehensive recreational program to provide a broad range of recreation facilities for its citizens.

P.65 - The Town of Atlantic Beach will support waste recycling efforts.

P.66 - The Town of Atlantic Beach will continue to support a private contract for collection of residential refuse and disposal of solid waste at the Tuscarora regional landfill (see Section 6.A.11, page 146).

P.67 - The Town of Atlantic Beach supports mutual aid in the form of Fire/EMS service with Carteret County and area municipalities.

#### Implementing Actions - General Health and Human Services Needs

I.78 - The Town of Atlantic Beach will prepare a specific capital improvements plan (CIP) with emphasis on services/facilities which will affect growth, development, and human services needs. This will support policies P.61 to P.66. *Schedule: Fiscal Year 2009-2010.*

I.79 - The Town of Atlantic Beach will provide sufficient emergency services to all residents by ensuring the implementation of the following:

- (1) Require that all necessary infrastructure firefighting capability/capacity be provided in new developments. *Schedule: Continuing Activity.*
- (2) Continue to maintain an effective signage and addressing system for all streets and roads. *Schedule: Continuing Activity.*

I.80 - The Town of Atlantic Beach will appoint a community appearance committee to establish guidelines and procedures for community appearance awards and to address the problem of litter on beaches and along roads. *Schedule: Fiscal Year 2008-2009 and Continuing.*

I.81 - The Town of Atlantic Beach will selectively support state and federal programs related to the Town's general health and human services needs. The Town, through its boards and committees, will monitor state and federal programs and regulations. It will use opportunities as they are presented to voice support for or to disagree with programs and regulations that are proposed by state and federal agencies. *Schedule: Continuing Activity.*

I.82 - The Town of Atlantic Beach will, through its public information efforts, educate people and businesses on waste reduction and recycling. *Schedule: Continuing Activity.*

#### Policies - Redevelopment

P.68 - The Town of Atlantic Beach will promote, foster, and encourage the redevelopment of old, poorly designed and underutilized areas. Redevelopment is preferred and deemed more important than development of currently undeveloped areas. Many developed areas are in poor condition with poor road design, lack of vegetation, dilapidated housing, mixed uses, etc.

P.69 - The Town of Atlantic Beach supports redevelopment of "The Circle" area.

### Implementing Actions - Redevelopment

I.83 - The Town of Atlantic Beach will continue a program of strict enforcement of the minimum code as a means to improve the quality of existing development. *Schedule: Continuing Activity.*

I.84 - The Town of Atlantic Beach will take an active supervisory role in all future redevelopment projects. All projects are required to consider the Town's environmental policies and to address the Town's other public needs, especially its needs for a sound street system and for public access to the beaches. *Schedule: Continuing Activity.*

I.85 - The Town of Atlantic Beach will allow the reconstruction of any structures demolished by natural disaster or by other causes in accordance with all applicable federal, state, and local regulations. *Schedule: Continuing Activity.*

I.86 - The Town of Atlantic Beach will consider, on a case-by-case basis, the expenditure of local funds to acquire unbuildable lots in hazardous areas. Donations of such lots will be accepted. *Schedule: Continuing Activity.*

### Policies - Funding Options

P.70 - The Town of Atlantic Beach will selectively support state and federal programs related to the Town. The Town, through its boards and committees, will monitor state and federal programs and regulations. It will use opportunities as they are presented to voice support for or to disagree with programs and regulations that are proposed by state and federal agencies.

### Implementing Actions - Funding Options

I.87 - The Town of Atlantic Beach will continue to support state and federal programs that are deemed necessary, cost-effective, and within the administrative and fiscal capabilities of the Town. These include, but are not necessarily limited to:

- (1) Emergency Medical Services
- (2) Coastal Area Management Act, including shoreline access funds
- (3) Small Business Association
- (4) Economic Development Administration Funds
- (5) Federal Emergency Management Program
- (6) Parks and Recreation Trust Fund

*Schedule: Continuing Activity.*

## M. FUTURE LAND USE

### 1. Introduction

The future land use map (Map 20) depicts application of the policies for growth and development and the desired future patterns of land use and land development. **The areas indicated as low suitability are not intended to prohibit development but are intended to indicate areas where careful review of proposed development should be undertaken.** Additionally, the least suitable overlay includes areas that are classified as conservation. Please refer to the Future Land Use Map for delineation of the conservation and least suitable overlay areas. 15A NCAC 7B requires that the future land use map include the following:

- Areas and locations planned for conservation or open space and a description of compatible land uses and activities.
- Areas and locations planned for future growth and development with descriptions of the following characteristics:
  - Predominant and supporting land uses that are encouraged in each area;
  - Overall density and development intensity planned for each area; and
  - Infrastructure required to support planned development in each area.
- Land use which reflects existing and planned infrastructure.
- Reflect the information depicted on the Composite Map of Environmental Conditions (Map 12) and Map of Land Suitability Analysis (Map 19).

The Town of Atlantic Beach Future Land Use Plan was drafted in consideration of the following:

- Preservation of existing residential neighborhoods.
- Protection of environmental assets.
- Limiting of potential land use conflicts.
- Encouraging mixed-use, including entertainment uses.
- Existing zoning land use patterns. However, the existing zoning ordinance should be revised to support the land use densities indicated on the future land use map.
- Open access to the beach and sound areas.
- Achieve/sustain a vibrant and diverse community.
- Enhancement of Town services and infrastructure.
- Encourage non-automobile transit improvements.

The future land use map delineates Atlantic Beach's future land use districts. These districts are defined in the following section.

Map 20 - future land use

## 2. Land Use Categories and Acreage

The future land use categories and acreages are provided in Table 41.

Table 41. Town of Atlantic Beach  
Future Land Use Acreages

Future Land Use Categories	Residential Density	Corresponding Existing Zoning Districts	Acres
Conservation/Open Space	No units	RS, CZ	409.73
Mixed-Use Commercial	7-10 units per acre	RC, CDD*, GGB	90.80
Mixed-Use Residential	Over 10 units per acre	RR	50.45
Residential - Low Density	1-6 units per acre	RA-1, RA-1.5, RA-1M	370.47
Residential - Medium Density	7-10 units per acre	RA-2	323.59
Residential - High Density	Over 10 units per acre	RA-3, RA-3M, RA-3V	79.91
Right-of-way			178.32
Water			147.31
Total			1,650.58

\*The CDD zoning district is limited in area, but can allow up to 50 residential units per acre.

NOTE: Mixed-use commercial objective - 50% Commercial/50% Residential; Mixed-use residential objective - 25% non-residential/75% residential.

NOTE: The RA-2 and RA-3 zoning districts are very similar. The Town should consider merging these districts in an effort to simplify the Town's existing code.

Source: Holland Consulting Planners, Inc.

The descriptions of each zoning district specified for each land use category are provided on pages 122 and 123. The following summarizes the development criteria for the existing Atlantic Beach zoning ordinance. **NOTE: The existing zoning ordinance must be revised to support the densities which are depicted on the Future Land Use Map, Map 20.**

### RS - Recreational Sound District

*Allowable Density:* None

*Maximum Building Height:* 20 feet

*Preferred Uses:* Piers, floating docks, boat lifts, marinas, public accesses, and pier houses

*Uses to be Discouraged:* All uses not listed above

### CZ - Conservation Zone

*Allowable Density:* N/A

*Maximum Building Height:* 15 feet

*Preferred Uses:* Open space or maximum 2,500 square foot educational facilities (single structure)

*Uses to be Discouraged:* All development (with exception of educational facilities as noted above)

RC - Resort Commercial District

*Allowable Density:* Residential (special use permit required) - 5,000 square feet for single-family unit; 3,600 square feet per unit for multi-family development; lot coverage may not exceed 40%. Commercial - maximum lot coverage may be up to 85%.

*Maximum Building Height:* 55 feet

*Preferred Uses:* Low impact commercial development intended to serve the seasonal population base of the Town

*Uses to be Discouraged:* Industrial and other noxious or invasive development

CDD - Circle Development District

*Allowable Density:* Single-family and multi-family residential - 50 units/acre\*; Commercial - up to 85% coverage

*Maximum Building Height:* 45 -185 feet depending upon which Circle Development District Development Zone a respective property falls under. Oceanfront portions of the CDD district have a maximum building height of 155 feet.

*Preferred Uses:* Mixed use

*Uses to be Discouraged:* Industrial and other noxious or invasive development

\*NOTE: The CDD zoning district is limited in area, but can allow a maximum of 50 units per acre. Additionally, the Ordinance does permit a density of 55 units per acre assuming that required density bonus criteria are met. Allowable densities, building heights, and setbacks within the CDD district are based on a variety of factors; refer to CDD District Ordinance for specific requirements regarding an individual piece of property.

GB - General Business Zone

*Allowable Density:* Residential (special use permit required) - 5,000 square feet for single-family unit; 3,600 square feet per unit for multi-family development; lot coverage may not exceed 40%. Commercial - maximum lot coverage may be up to 85%.

*Maximum Building Height:* 55 feet

*Preferred Uses:* Commercial (restaurants, retail establishments, and office spaces)

*Uses to be Discouraged:* Single- and multi-family residential development; industrial and other noxious or invasive development

RR - Resort Residential District

*Allowable Density:* Single-family and multi-family residential - 7,000 square feet; Projects with more than four units in a single building, minimum lot size will be 14,000 square feet. Maximum lot coverage shall not exceed 40%.

*Maximum Building Height:* 45 feet (projects with more than four units in a single building - 55 feet)

*Preferred Uses:* Residential and low impact commercial (restaurants)

*Uses to be Discouraged:* All non-residential development with the exception of those listed above

*RA-1 - Residential District*

*Allowable Density:* 6,000 square feet minimum; maximum lot coverage is 40%.

*Maximum Building Height:* 45 feet

*Preferred Uses:* Single-family

*Uses to be Discouraged:* All non single-family

*RA-1.5 - Residential District*

*Allowable Density:* Single-family - 6,000 square feet minimum; Multi-family development - 3,600 square feet/unit; maximum lot coverage is 40%.

*Maximum Building Height:* 45 feet

*Preferred Uses:* Single-family and duplex

*Uses to be Discouraged:* All non single-family and duplex

*RA-1M - Residential District*

*Allowable Density:* 6,000 square feet minimum; maximum lot coverage is 40%.

*Maximum Building Height:* 45 feet

*Preferred Uses:* Single-family with manufactured homes

*Uses to be Discouraged:* All non-residential

*RA-2 - Residential District*

*Allowable Density:* Single-family - 5,000 square feet minimum; Multi-family development - 3,600 square feet/unit; maximum lot coverage is 40%.

*Maximum Building Height:* 45 feet

*Preferred Uses:* Single-family and multi-family

*Uses to be Discouraged:* All non-residential

*RA-3 - Residential District*

*Allowable Density:* Single-family - 5,000 square feet minimum; Multi-family development - 3,600 square feet/unit; maximum lot coverage is 40%.

*Maximum Building Height:* 45 feet

*Preferred Uses:* Residential with neighborhood commercial and hotels/motels

*Uses to be Discouraged:* All development not listed above.

*RA-3M - Residential District*

*Allowable Density:* Single-family - 5,000 square feet minimum; Multi-family development - 3,600 square feet/unit; maximum lot coverage is 40%.

*Maximum Building Height:* 45 feet

*Preferred Uses:* Residential (manufactured homes) with neighborhood commercial

*Uses to be Discouraged:* All non-residential or neighborhood commercial

RA-3V - Residential District

*Allowable Density:* Single-family - 5,000 square feet minimum; Multi-family development - 3,600 square feet/unit; maximum lot coverage is 40%.

*Maximum Building Height:* 45 feet

*Preferred Uses:* Single-family and multi-family with recreational vehicles

*Uses to be Discouraged:* All non-residential

**Notes related to zoning district requirements listed above:**

- (1) Maximum lot coverage as noted above assumes that a given property owner will develop an on-site stormwater management system which will manage the first inch and a half of precipitation for a given rain event. Without the installation of a stormwater management system, maximum lot coverage will be 25% for residential properties and 30% for commercial structures.
- (2) Developments that will incorporate greater than four units in a single structure and/or two or more buildings on a single lot will fall under the Town's group housing zoning requirements and must be approved by the Town's Planning Board.
- (3) The minimum lot size requirements listed above are based on an Ordinance amended adopted February 2, 2006. These requirements will not be into effect until February 2, 2007. This grace period only governs or relates to the minimum lot size requirements.
- (4) Maximum building height listed above is for usable heated square footage only. Proposed developments may incorporate an additional five feet to a respective structure's maximum building height for the addition of ornamental elements. This additional five feet may not be usable square footage.

The future land use map identifies the following Cottage Overlay district areas:

<u>District</u>	<u>Acreage</u>
Club Colony District	21.496
Money Island District	19.357
Old Atlantic Beach East	23.856
Old Atlantic Beach West	<u>30.623</u>
Total	95.332

The identified acreages are included in the land use acreages specified in Table 41. All of the Cottage Districts are located in residential land use categories. The Cottage Districts are not specified in the Town of Atlantic Beach zoning ordinance. These areas are not designated historic districts. However, the character, building scale, and architectural style reflect “old Atlantic Beach.” It is the Town’s intent to preserve the scale/appearance of these areas. To accomplish this, revisions to the Town’s zoning and subdivision ordinances may be required. Potential revisions will be considered during the Fiscal Year 2007-2008 update of the Town’s zoning and subdivision ordinances.

The future land use map emphasizes mixed-use development. Such development is considered essential to the redevelopment which is expected to occur in Atlantic Beach. The desired mix of residential and non-residential use are specified for the mixed-use land use categories in Table 41. Approximately 141.25 acres, or 8.6%, of Atlantic Beach’s total area is delineated for mixed-use development. **NOTE: the specified mix of uses is an objective. To accomplish the mixed-use objectives, revision to the Town’s zoning and subdivision ordinances will be required in Fiscal Year 2007-2008.**

### **3. Land Demand Forecast and Infrastructure Carrying Capacity**

The Town of Atlantic Beach faces many obstacles with respect to future growth and development throughout its jurisdiction. The town does not currently have much buildable vacant land remaining; however, large scale redevelopment projects are either in the planning stage, or being discussed. The most substantial redevelopment effort will take place within the “Circle District” (see Map 15), and has been established as a special district within the town’s existing zoning ordinance. Redevelopment of this area is still in the planning stages, and it is still unclear as to how this area will be developed with respect to land use. On the Future Land Use Map, this area has been shown as Mixed Use Commercial. The “Circle” at Atlantic Beach has traditionally served as the civic and cultural center for the Town. For this purpose, the Circle Development District is designed to re-establish and preserve the area as the primary civic, retail, office, institutional, cultural and entertainment center for the community.

One of the primary concerns of Atlantic Beach citizens with respect to land use is to either maintain existing densities or reduce density where possible. Establishing a solution to this concern is difficult due to the fact that the town is nearly built out. Based on data established through the Existing Land Use Map (Map 14, page 95), there are currently 466 vacant acres of land within the town’s corporate limits, comprising approximately 35% of its total jurisdiction. Based on the districts outlined on the Future Land Use Map (Map 20, page 179), approximately 410 (91%) of these acres are designated as Conservation/Open Space. This leaves only 56.6 acres of vacant buildable land within the town for future development.

The vacant land that does remain within Atlantic Beach falls entirely within two distinct future land use districts: Low Density Residential (1-6 units per acre) and Medium Density Residential (6-10 units per acre). The densities outlined for these districts are to be interpreted as minimum and maximum allowable densities. For the purposes of this plan, the town would like to maintain an average single-family residential density of approximately five units per acre. The town is fully aware of the problems that existing residential density have generated with respect to water quality. These concerns have been documented within the existing community facilities (sewer system) and water quality sections of the plan. Although it is nearly impossible to rectify densities with respect to existing properties, the town can aim to reduce density on the development of new properties, as well within substantial redevelopment projects.

At this time, the town is issuing an average of approximately 20 single-family residential building permits annually dating back to fiscal year 2000. At this rate, the town can expect to see an increase of 100 housing units every five years throughout the infrastructure planning period horizon of 2025. Through 2025 that would result in 400 additional housing units. In an effort to maintain a reasonable density, if you assume an average single-family housing density of five units per acre, as noted above, there is only enough vacant land remaining within town to support the construction of approximately 283 additional single-family homes.

Based on this estimate, it is anticipated that all remaining vacant buildable land within Atlantic Beach will be utilized by 2020 at the latest. Due to this fact, infrastructure carrying capacity discussion will be based on three primary factors: existing conditions (see Existing Land Use Map, Map 14); future development (single-family residential construction); and redevelopment (“Circle District” and redevelopment of existing mobile home and mobile home park properties). It is assumed based on current market demand that all mobile homes, whether stand alone or within a mobile home park, will be redeveloped during the planning period (2025). Based on the factors outlined above, Table 42 below has been included to establish an estimated number of residential and nonresidential units that can be expected upon build out of Atlantic Beach. It is difficult at this time to determine what and how portions of the town will be redeveloped, outside of the “Circle District” and mobile home park areas. The most significant factor currently acting as an impediment to development is the lack of a central sewer system. The town has struggled with this issue for years, and the current situation is discussed in both the existing community facilities and future demands section of the plan.

Table 42  
 Estimated Build Out Acreage\*(Through 2025)

Land Use	Existing Units	Redevelopment Units	New Construction Units	Total Units**	Average Units Per acre
Mobile Homes	242	0	0	0	N/A
Residential	3,563	513***	283	4,359	5
Commercial/ Mixed Use	176	545****	0	721	50****
Office & Institutional	8	8	0	8	N/A
<b>Total</b>	<b>3,989</b>	<b>4,805</b>	<b>283</b>	<b>5,088</b>	<b>N/A</b>

\*Only land use units (structures) that will have an impact on infrastructure carrying capacity have been included.

\*\*Total Units does not include redeveloped mobile homes.

\*\*\*This figure assumes total redevelopment of all mobile home properties to single-family homes or medium density multi-family units at an average density of five units per acre. This will result in an increase of 513 new residential units based on a total acreage of 151.1 currently occupied by either individual mobile homes or mobile home parks.

\*\*\*\*This figure is based on the redevelopment of the town’s established “Circle District”. This district is 10.9 acres in size, and therefore, proposed units (545) have been based on the maximum allowable units for this future land use district as currently established in the Town’s Circle Development District Ordinance. It is anticipated that development within this area will be utilized to the maximum density allowed, pending approval of an on-site wastewater treatment system that will support the development. The maximum allowable density within this district is 50 units/acre. The 545 units will be considered mixed use/commercial for the purposes of the infrastructure forecast listed above. This forecast is based on the maximum allowable density and it is not anticipated that maximum will be achieved. The number of units permitted within the CDD varies depending on a respective property’s square footage and maximum building height. For a determination on density for a specific property, refer to the Town’s Circle Development District Ordinance. At this time, it is difficult to determine how many units will be residential versus non-residential; therefore, the average daily water use/wastewater treatment capacity will be based on commercial development.

\*\*\*\*\*This acreage figure includes the Mixed Use Residential district as indicated on the Future Land Use Map.

a. *Water System*

As discussed earlier in the plan, Atlantic Beach’s water system capacity is currently 2.5 million gallons per day. Utilization of this capacity fluctuates substantially due to seasonal population fluctuations. During the slow season (winter months), the average daily water usage is approximately 482,000 gallons per day (GPD), while during peak summer months water usage reaches as high as 1,645,000 GPD. During summer months the town’s water system operates at approximately 65.8% of total capacity. In order to assess what impact new development and redevelopment will have on available system capacity, estimates of increased demand based on Table 42 above have been compiled. These estimates have been based on average daily usage estimate for various land uses as established by the American Water Works Association (AWWA). Estimated average daily usage rates are as follows:

Water System Average Daily Usage Rates(Gallons Per Day)

Residential: 170  
Non Residential: 100

Based on these estimates, the town can expect to see the following increases in water system capacity demand due to the land use forecast outlined in Table 42 above.

<u>Type of Development</u>	<u>Increased Units</u>	<u>Increased Demand (GPD)</u>
New Residential Units	796	135,320
New Nonresidential Units	545	<u>54,500</u>
Total		189,820

According to this table, assuming buildout based on the criteria outlined above, the town can expect to see an increase in water system demand of 189,820 GPD. This would result in a total of approximately 1,834,820 GPD demand during peak summer months. Under this scenario, 73.4% of the town's water system will be utilized, leaving nearly 30% of overall plant capacity to account for additional redevelopment efforts.

*b. Sewer System*

As has been discussed throughout this plan, the Town of Atlantic Beach is well aware of its problems related to wastewater treatment. At this time, the town is still researching its options with respect to establishing town-wide central sewer service. Until an alternative is identified, the town will continue to rely on both private septic systems, and on-site wastewater treatment system (package plants). The town will continue to work with both the Carteret County Health Department and NC DENR to ensure that failing systems are kept to a minimum. If the town were to establish a town-wide sewer system, it estimated that this system's capacity should at a minimum be 2.0 million gallons per day. The American Water Works Association states that approximately 95% of a given jurisdictions' potable water supply gets channeled through the wastewater treatment plant. Assuming the water demand estimates outlined above, it would at least require 2.0 million GPD to support the town at buildout; however, the town should aim to establish capacity between 2.5 and 3 million gallons per day assuming permits for the system can be secured. This will assist in assuring that demand due to redevelopment efforts will be met. It is anticipated that if central sewer system were to be established land values would increase drastically, requiring redevelopment to take place at higher densities.

## SECTION 7. TOOLS FOR MANAGING DEVELOPMENT

### A. GUIDE FOR LAND USE DECISION MAKING

This plan is expected to be an integral part of the Town of Atlantic Beach’s decision making process concerning future land use. This document should be consulted prior to any decision being made by the Atlantic Beach staff, Planning Board, and/or Town Council concerning land use and development.

The intent of this decision making process is defined by the following excerpt from 15A NCAC 7B:

“Land development generally 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 not be in the best interest of the overall community. In order to promote community interest for both present and future generations, a Land Use Plan shall be developed, adopted, and kept current by local governments in the coastal area. The Land Use Plan is a framework that guides local leaders as they make decisions affecting development. Businesses, investors, new residents, and other private individuals, as well as other levels of government, also use the plan to guide their land use decisions. Use of the plan by these groups leads to more efficient and economical provision of public services, protection of natural resources, sound economic development, and protection of public health and safety.”

### B. EXISTING DEVELOPMENT PROGRAM

The Town of Atlantic Beach existing development program is summarized in Section 5.E, Current Plans, Policies, and Regulations (page 120). These documents have been implemented by the Town of Atlantic Beach and have provided the foundation for the Town’s planning program.

### C. ADDITIONAL TOOLS

The Town of Atlantic Beach will utilize the following additional tools to implement this plan:

- Conduct annual training sessions for the Town of Atlantic Beach Planning Board and Board of Adjustment.
- The Planning Department staff, in concert with the Planning Board, shall prepare an annual report assessing the effectiveness of plan implementation. This report shall be presented to the Town Council.

- At a minimum, update the Land Use Plan and implementation process every six to seven years.
- In Fiscal Year 2007-2008, revise the Town’s zoning and subdivision ordinances to support the policies and implementing actions contained in this plan.
- The Town of Atlantic Beach will, at least annually, conduct a joint meeting of the Town Council and the Planning Board to identify planning issues/needs.
- Amendment or adjustment to existing development codes and adoption of new ordinances are specified in the policies and implementing actions section of this plan. This includes adoption of a Capital Improvements Plan.

D. ACTION PLAN/SCHEDULE

1. **Citizen Participation**

For the preparation of this plan, the Town of Atlantic Beach adopted a citizen participation plan on September 20, 2004. A copy of that plan is included as Appendix I. Following adoption of this plan, the Town of Atlantic Beach will implement the following to ensure adequate citizen participation:

- The Town will encourage public participation in all land use decisions and procedure development processes and encourage citizen input via its boards and commissions.
- The Town of Atlantic Beach will advertise all meetings of the Town’s Planning Board and Board of Adjustment through newspaper advertisements and public service announcements.
- All Planning Department activities will be outlined on the town’s web-site. The site will include this plan.
- Ensure that the membership of all planning related and ad hoc advisory committees has a broad cross section of Atlantic Beach’s citizenry.

## 2. Action Plan/Schedule

The implementing actions which have specific timeframes are summarized below. Policies and implementing actions which are shown as continuing activities are not listed.

### Fiscal Year 2007 - 2008

I.9, I.14, I.20, I.26, I.28, I.31, I.44, I.63, I.64, I.65, I.66, I.72, I.74

### Fiscal Year 2008-2009

I.1, I.7, I.35, I.36, I.45, I.63, I.69, I.80

### Fiscal Year 2009-2010

I.50, I.78

## E. RESOURCE CONSERVATION MANAGEMENT ACTION PLAN/POSITIVE AND NEGATIVE IMPACTS ON LAND USE PLAN POLICIES

The Town of Atlantic Beach believes that the policies, management goals, planning objectives, and land use plan requirements contained in this document will have positive impacts for the Town. However, the following could have some negative impacts:

- Infrastructure improvements which may extend through sensitive environmental areas.
- Potential infringement of growth on sensitive areas.
- Increased stormwater runoff.
- Overall impact of growth on the capacity of Atlantic Beach's facilities.

The management objectives, policies, and implementing actions address the issues associated with these possible negative impacts. Mitigating policies are stated in the conservation policies, page 159; stormwater control policies, page 162; infrastructure carrying capacity policies, page 164; and water quality policies, page 168.

Table 43 provides an analysis matrix which summarizes this plan's policies and identifies them as beneficial, neutral, or detrimental.

Table 43  
 Town of Atlantic Beach  
 Policy Analysis Matrix - Land Use Plan Management Topics

Management Topics	Policy Benchmarks - Indicate whether policy <u>beneficial</u> (B), <u>neutral</u> (N), or <u>detrimental</u> (D)					
	Public Access	Land Use Compatibility	Infrastructure Carrying Capacity	Natural Hazards	Water Quality	Local Concerns
Land Use and Development Policies	<ul style="list-style-type: none"> <li>• more planned access locations</li> <li>• upgrades to existing access locations</li> <li>• increase pedestrian access</li> <li>• comply with state access standards to enhance opportunities for state funding</li> </ul>	<ul style="list-style-type: none"> <li>• reduction in habitat loss and fragmentation related to impacts of land use and development</li> <li>• reduction of water resource and water quality degradation</li> <li>• balance growth demands with protection of the environment</li> </ul>	<ul style="list-style-type: none"> <li>• water, sewer, and other key community facilities and services being available in required locations at adequate capacities to support planned community growth and development patterns</li> <li>• during construction of infrastructure systems, AECs and other fragile areas should be protected</li> <li>• transportation improvements should support the efficiency of traffic flow and pedestrian safety</li> </ul>	<ul style="list-style-type: none"> <li>• land uses and development patterns that reduce vulnerability to natural hazards</li> <li>• land uses and development patterns that take into account the existing and planned capacity of evacuation infrastructure</li> <li>• minimize development in floodplains, AECs, wetlands, and other fragile areas</li> </ul>	<ul style="list-style-type: none"> <li>• land use and development criteria and measures that abate impacts that degrade water quality</li> <li>• coordinate water quality efforts with Carteret County</li> </ul>	<ul style="list-style-type: none"> <li>• preservation of cultural, historic, and scenic areas</li> <li>• support of economic development</li> <li>• development of human resources</li> <li>• preservation of the town's rural character</li> <li>• decrease residential density within town</li> </ul>
Public Access: <u>P.1 - P.6</u>	P.1(B), P.2(B), P.3(B), P.4(B), P.5(B), P.6(B)					
Land Use Compatibility: <u>P.7 - P.37</u>		P.7(B), P.8(B), P.9(B), P.10(B), P.11(potentially D), P.12(B), P.13(B), P.14(B), P.15(B), P.16(B), P.17(B), P.18(B), P.19(B), P.20(B), P.21(B), P.22(B), P.23(B), P.24(B), P.25(B), P.26(B), P.27(B), P.28(B), P.29(B), P.30(B), P.31(B), P.32(B), P.33(B), P.34(B), P.35(B), P.36(B), P.37(B)				
Infrastructure Carrying Capacity: <u>P.38 - P.40</u>			P.38(potentially D), P.39(B), P.40(B)			
Natural Hazards: <u>P.41 - P.46</u>				P.41(B), P.42(B), P.43(B), P.44(B), P.45(B), P.46(B)		

Table 43 (continued)

Management Topics	Policy Benchmarks - Indicate whether policy <u>beneficial</u> (B), <u>neutral</u> (N), or <u>detrimental</u> (D)					
	Public Access	Land Use Compatibility	Infrastructure Carrying Capacity	Natural Hazards	Water Quality	Local Concerns
Land Use and Development Policies	<ul style="list-style-type: none"> <li>• more planned access locations</li> <li>• upgrades to existing access locations</li> <li>• increase pedestrian access</li> <li>• comply with state access standards to enhance opportunities for state funding</li> </ul>	<ul style="list-style-type: none"> <li>• reduction in habitat loss and fragmentation related to impacts of land use and development</li> <li>• reduction of water resource and water quality degradation</li> <li>• balance growth demands with protection of the environment</li> </ul>	<ul style="list-style-type: none"> <li>• water, sewer, and other key community facilities and services being available in required locations at adequate capacities to support planned community growth and development patterns</li> <li>• during construction of infrastructure systems, AECs and other fragile areas should be protected</li> <li>• transportation improvements should support the efficiency of traffic flow and pedestrian safety</li> </ul>	<ul style="list-style-type: none"> <li>• land uses and development patterns that reduce vulnerability to natural hazards</li> <li>• land uses and development patterns that take into account the existing and planned capacity of evacuation infrastructure</li> <li>• minimize development in floodplains, AECs, wetlands, and other fragile areas</li> </ul>	<ul style="list-style-type: none"> <li>• land use and development criteria and measures that abate impacts that degrade water quality</li> <li>• coordinate water quality efforts with Carteret County</li> </ul>	<ul style="list-style-type: none"> <li>• preservation of cultural, historic, and scenic areas</li> <li>• support of economic development</li> <li>• development of human resources</li> <li>• preservation of the town's rural character</li> <li>• decrease residential density within town</li> </ul>
Water Quality: <u>P.47 - P.53</u>					P.47(B), P.48(B), P.49(B), P.50(B), P.51(B), P.52(B), P.53(B)	
Local Concerns: <u>P.54 - P.70</u>						P.54(B), P.55(B), P.56(B), P.57(B), P.58(B), P.59(B), P.60(B), P.61(B), P.62(B), P.63(B), P.64(B), P.65(B), P.66(B), P.67(B), P.68(B), P.69(B), P.70(B)

**Notes to the Policy Analysis Matrix:**

**1. Public Access**

**P.1(B) through P.6(B)** - Policies P.1 through P.6 address the provision of public access within Atlantic Beach. These policies are intended to support the improvement of existing facilities and to provide additional facilities which will comply with NC CAMA Standards. State funding is necessary to the provision of facilities and state access standards will be followed. Locational decisions for facilities will be based on the availability of land, environmental conditions, and fiscal resources.

**2. Land Use Compatibility**

**P.7(B) and P.12 (B)** - Atlantic Beach supports policies which will preserve the history and cultural heritage of the Town. Overall development densities should not increase.

**P.8(B) and P.9(B)** - Atlantic Beach supports residential development in mixed-use areas and areas of environmental concern.

**P.10(B)** - The Town of Atlantic Beach supports actions to require proposed development to mitigate the impacts it creates.

**P.11(Potentially D)** - The construction of a central sewer system could stimulate development at increased densities and require greater support services. The impacts must be continuously monitored and appropriate mitigative actions taken.

**P.13(B)** - The Town of Atlantic Beach opposes all industrial development except for light industrial development which is compatible with the town's sensitive environment.

**P.14(B) through P.21(B)** - Atlantic Beach supports commercial development which is compatible with its sensitive environmental areas and residential development. This includes energy generation facilities.

**P.22(B) through P.33(B)** - The Town of Atlantic Beach policies for land use compatibility which are associated with conservation support the 15A NCAC 7H minimum use standards for areas of environmental concern. The reader should review policies P.34-P.37 and the associated implementing actions I.36-I.43 for discussion of stormwater concerns/control. The Town of Atlantic Beach recognizes that preservation of environmental sensitive areas is crucial to its economic development, especially the tourist industry.

**P.34(B) through P.37(B)** - These policies address stormwater control. It is important that the reader analyze these policies in concert with the implementing actions I.36-I.43. In addition, the reader should review the Water Quality policies P.47-P.53. The Town of Atlantic Beach emphasizes stormwater control in both the policies and implementing actions contained in this plan.

### **3. Infrastructure Carrying Capacity**

**P.38 (Potentially D)** - This policy is potentially detrimental because it could stimulate increased density of development, in particular, residential development. The development of long-range plans for central sewer service must take this into consideration.

**P.39(B) and P.40(B)** - The Town of Atlantic Beach supports development of a central sewer system and continuation/maintenance of its central water system. The associated implementing actions acknowledge that development of a central sewer system is under study. Policy 40 addresses improvement of the Town's transportation system. Emphasis is placed on diversifying the transportation system through implementing actions I.50, I.51, I.52, I.53, and I.54.

### **4. Natural Hazard Areas**

**P.41(B) through P.46(B)** - The natural hazard area policies for Atlantic Beach focus on protection of the areas of environmental concern as defined by 15A NCAC 7H, support of the Town's hazard mitigation plan, and beach renourishment. The reader should also refer to the land use compatibility conservation policies P.22 through P.33.

### **5. Water Quality**

**P.47(B) through P.53(B)** - These policies reflect a basic goal of the land use plan to improve water quality.

### **6. Local Areas of Concern**

**P.54(B) through P.58(B)** - These policies reflect the Town's desire to protect its cultural, historic, and scenic areas.

**P.59(B) through P.69(B)** - These policies reflect the Town's desire to support economic development efforts, general health and human services needs, and redevelopment efforts.

**P.70(B)** - This policy reflects the Town's desire to pursue potential funding sources to aid in implementation of this plan.

## APPENDIX I

### TOWN OF ATLANTIC BEACH CITIZEN PARTICIPATION PLAN

#### PREPARATION OF A CORE LAND USE PLAN PHASE I

The Town of Atlantic Beach has received a Coastal Area Management Act grant for preparation of a Core Land Use Plan, Phase I. Adequate citizen participation in the development of the plan is essential to the preparation of a document responsive to the needs of the citizens of the Town of Atlantic Beach. To ensure such input, the following citizen participation program will be utilized by the Town.

The Atlantic Beach Town Council appoints the Atlantic Beach Planning Board to work with the Town's planning consultant to ensure that the final product will be a plan suitable for adoption by the Town.

Specifically, the planning consultant and the Planning Board will be responsible for ensuring accomplishment of the following:

- Conduct initial orientation session with project team; develop and adopt the Citizen Participation Plan; conduct public information meeting; and conduct a Town-wide meeting to identify community aspirations, issues, and needs. In addition, prepare analysis of existing and emerging conditions; prepare existing land use map and existing facilities & infrastructure map; review analysis of existing and emerging conditions and existing environmental conditions and hazards; complete analysis of community facilities.
- Finalize forecast of future land use needs; prepare composite environmental conditions map; prepare/review land suitability analysis and map; review existing CAMA plan, local regulations, and other plan documents.

The following schedule will be utilized for Phase I:

1. August, 2004
  - Begin data collection and analysis.
2. September / October, 2004
  - Conduct public information meeting.
  - Town Council adopt the Citizen Participation Plan.
  - Conduct initial meeting with Planning Board and review Citizen Participation Plan and process for preparing the land use plan.
  - Conduct Town-wide issues identification meeting.
3. November, 2004 to April, 2005 – Prepare preliminary draft land use plan which will include analysis of existing conditions, land suitability analysis, natural systems analysis, and community facilities analysis. Conduct monthly meetings with the Planning Board.
4. May, 2005 – Present draft of Phase I to the Planning Board and Town Council.
5. June, 2005 – Conduct open house; present plan to the Town Council.

All meetings of the Planning Board and Town Council at which the Plan will be discussed will be advertised in a local newspaper. The public information meeting, Town-wide meeting, and public hearing will also be advertised in a local newspaper. In addition, public service announcements will be mailed to local radio stations and posted in the Municipal Building and other public buildings as directed by the Planning Board and Town Council. All meetings will be open to the public. The Town will encourage and consider all economic, social, ethnic and cultural viewpoints. No major non-English speaking groups are known to exist in the Town of Atlantic Beach.

This plan was adopted by resolution of the Town Council of the Town of Atlantic Beach, North Carolina on September 20, 2004.

TOWN OF ATLANTIC BEACH  
CITIZEN PARTICIPATION PLAN

PREPARATION OF A CORE LAND USE PLAN  
PHASE II

The Town of Atlantic Beach has received a Coastal Area Management Act grant for preparation of a Core Land Use Plan, Phase II. Adequate citizen participation in the development of the plan is essential to the preparation of a document responsive to the needs of the citizens of the Town of Atlantic Beach. To ensure such input, the following citizen participation program will be utilized by the Town.

The Atlantic Beach Town Council has appointed the Town of Atlantic Beach Planning Board to work with the Town's planning consultant to ensure that the final product will be a plan suitable for adoption by the Town.

Specifically, the planning consultant and the Planning Board will be responsible for ensuring accomplishment of the following:

- Adopt and implement Citizen Participation Plan for Phase II.
- Revise preliminary plan based on public review.
- Complete plan for the future (including future land use map and tools for managing development).
- Present the draft plan to the Town Council.
- Submit plan to state/DCM for review; provide plan to adjacent jurisdictions for review; conduct public information hearings.
- Review plan based on state and local review; conduct public hearing; Town Council adoption; submit for CRC certification.

The following schedule will be utilized for Phase II:

1. September, 2005
  - Update Citizen Participation Plan
  - Begin preparation of Phase II portion of LUP
2. October, 2005 - January, 2006
  - Hold monthly meetings with Planning Board
  - Revise preliminary plan based on public review
3. February, 2006 – Provide plan to adjacent jurisdictions to review
4. March, 2006 – Submit plan (with any revisions) to the Atlantic Beach Planning Board for review and preliminary approval
5. April, 2006 – Submit draft plan to state for DCM review

6. May, 2006
  - Revise plan based on state and local review
  - Conduct public hearing for Town Council to adopt plan
  - Submit to CRC for certification

All meetings of the Planning Board and Town Council at which the Plan will be discussed will be advertised in a local newspaper. The public hearing will also be advertised in a local newspaper. In addition, public service announcements will be posted at the Town Hall and other public buildings as directed by the Planning Board and Town Council. All meetings will be open to the public. The town will encourage and consider all economic, social, ethnic and cultural viewpoints. No major non-English speaking groups are known to exist in the Town of Atlantic Beach.

**APPENDIX II**  
**TOWN OF ATLANTIC BEACH**  
**2005-2006 CAMA CORE LAND USE PLAN UPDATE**  
**ABSENTEE PROPERTY OWNER SURVEY RESULTS**

1. Atlantic Beach should continue to focus on redevelopment efforts within “The Circle.”

<i>Absentee Mail-Out Responses</i>		
Agree	No Opinion	Disagree
155	26	28

<i>Website Responses</i>		
Agree	No Opinion	Disagree
7	0	3

<i>Total</i>		
Agree	No Opinion	Disagree
162	26	31

2. Atlantic Beach is witnessing a reduction in commercial businesses and commercial business areas. The town should focus on recruiting and retaining commercial development and implement measures to protect the commercial districts within the town.

<i>Absentee Mail-Out Responses</i>		
Agree	No Opinion	Disagree
130	38	41

<i>Website Responses</i>		
Agree	No Opinion	Disagree
7	2	1

<i>Total</i>		
Agree	No Opinion	Disagree
137	40	42

3. In light of the recent increased restrictions regarding stormwater runoff control currently being implemented in a majority of towns and counties across the state, the Town should continue to take a proactive approach to stormwater control. This could include a stormwater control ordinance with fees charged to property owners.

<i>Absentee Mail-Out Responses</i>		
Agree	No Opinion	Disagree
80	39	90

<i>Website Responses</i>		
Agree	No Opinion	Disagree
6	2	2

<i>Total</i>		
Agree	No Opinion	Disagree
86	41	92

4. Atlantic Beach should support a central sewer system, even if additional taxes or fees are required.

<i>Absentee Mail-Out Responses</i>		
Agree	No Opinion	Disagree
134	19	56

<i>Website Responses</i>		
Agree	No Opinion	Disagree
4	0	6

<i>Total</i>		
Agree	No Opinion	Disagree
138	19	62

5. Traffic volume along NC Highway 58 has reached a critical point. The town should identify solutions and allocate resources to relieve traffic flow and congestion problems.

<i>Absentee Mail-Out Responses</i>		
Agree	No Opinion	Disagree
136	44	29

<i>Website Responses</i>		
Agree	No Opinion	Disagree
6	1	3

<i>Total</i>		
Agree	No Opinion	Disagree
142	45	32

6. The town should make it a priority to slow the rate of high density residential growth.

<i>Absentee Mail-Out Responses</i>		
Agree	No Opinion	Disagree
165	22	22

<i>Website Responses</i>		
Agree	No Opinion	Disagree
10	0	0

<i>Total</i>		
Agree	No Opinion	Disagree
175	22	22

7. Public boat access should be a priority of the town and resources should be used to improve and increase the number of public boat access locations.

<i>Absentee Mail-Out Responses</i>		
Agree	No Opinion	Disagree
107	49	53

<i>Website Responses</i>		
Agree	No Opinion	Disagree
2	4	4

<i>Total</i>		
Agree	No Opinion	Disagree
109	53	57

8. The town should focus on creating additional public beach and sound access locations, including expenditures to establish locations that provide automobile parking.

<i>Absentee Mail-Out Responses</i>		
Agree	No Opinion	Disagree
102	33	74

<i>Website Responses</i>		
Agree	No Opinion	Disagree
6	0	4

<i>Total</i>		
Agree	No Opinion	Disagree
108	33	78

Please note: 494 surveys were mailed out to absentee property owners; 211 responses were received. Additionally, 10 survey responses were generated from the web-site posting of the survey.

9. **Ranking of key issues:** The following issues were identified and ranked by permanent residents of the Town at a public meeting held on February 1, 2005. Absentee property owners as identified by Carteret County tax records were asked to rank each issue identified from 1 to 10, with 1 being the most important need and 10 being the least important need. Following are the results of the ranking:

*ABSENTEE MAIL-OUT RESPONSES*

<u>SCORE</u>	<u>KEY ISSUE</u>	<u>RANK</u>
742	Beach maintenance	1
800	Density of future development	2
827	Development of sewer system	3
851	Beach renourishment efforts (especially from Brandt Island)	4
883	Development regulations	5
971	Water supply/water system	6
1100	Commercial and residential development	7
1228	Stormwater management in Town	8
1292	Parks and recreational opportunities (active and passive)	9
1536	Tree ordinance/tree protection	10

*WEBSITE RESPONSES*

<u>SCORE</u>	<u>KEY ISSUE</u>	<u>RANK</u>
33	Density of future development	1
39	Development regulations	2
41	Beach maintenance	3
43	Beach renourishment efforts (especially from Brandt Island)	4
56	Water supply/water system	5
58	Commercial and residential development	6
61	Stormwater management in Town	7
68	Parks and recreational opportunities (active and passive)	8
68	Development of sewer system	9
83	Tree ordinance/tree protection	10

10. Comments:

ABSENTEE MAIL-OUT RESPONSES

- We would like to see the town keep condo development to a pace the town can absorb without it becoming a “Myrtle Beach.” Focus on beach access, boating, and the small clean town it has been in the past. Developers have no consideration on what the future looks like.
- I don’t think is right for a home on the ocean to grow a tree so big and tall it is impossible for people on the second row of homes to see the ocean.
- I feel if you don’t get our sewer system fixed, we are going to be in real trouble. Building more condo or townhouses, bringing in more people with the same sewer system, still flooding in the sound at times now. What are all you intelligent people thinking? I have only a 12 years education, even I know what’s going to happen.
- “Rumor has it” that there is an abundance of condo projects planned for the area. Please keep in mind that the infrastructures must be adequate to accommodate this increase in population.
- The growth of the Island is way out in front of controls for stormwater and sewer. This causes problems for those of us that for prior years had no problems with these issues.
- The town has a drainage problem!
- The town should cease any plans to restrict re-building on any existing lots/home regardless of size of lot. Existing structures should be grandfathered in and allowed to rebuild in case of fire or other disaster.
- Keep this as a non-commercial, family, non-overdeveloped beach.
- There are too many high density condo type developments on the beach already. This type of development has created problems in area of septic (need for sewers), water supply, traffic, and has also restricted ocean/sound access. Commercial/recreational entities no longer exist for the year-round or vacationing families. The current beach accesses are over subscribed, poorly managed, and are now used as little more than dog runs/littered with dog droppings. The circle was once a thriving arcade area and nigh spot – “a destination for summer visitors.” Now it is a waste land, barren and clean, but without charm. Circle suggestions: (1) a merry go round; (2) band shell - for summer; (3) salt water wading pool; (4) sailing lagoon for children’s boats or radio/remote boats; (5) some permanent cement type tables and benches with built-in checker boards for checkers or chess; (6) an old fashion ice cream stand or parlor/decorated Pepsi era historic; (7) a promenade or boardwalk area; (8) shuffleboard courts; (9) bacci ball court; (10) an outdoor roller rink with dress code and organ music (could also be used as outdoor dance area event ‘shag nights’). The overdevelopment of the beach by the “condo” building has created a shortage of recreation for children and adults alike. Atlantic Beach was known as the “Atlantic City” of the south before Atlantic City became a gambling meca. It has become a character-less wall of condos and has lost its “CHARM.” The “charm” of places like Cape May, NJ; Point Pleasant, NJ; Tarpon Sp, FL; Key West, FL is that there has been a successful blend of old and new. This blend is need for Atlantic Beach - it lacks (lost its beach/character) to condo development.
- Deeply concerned about the effects of current land use modifications on long term land owners and our ability to upgrade these projects.
- With the tear down of the Triple S pier and the building of homes in that area, it concerns me that there will be no beach access for the people who are residents or have residences along the road leading to the ocean. There would be no need for a “public” access with parking, but an access for residents.

- The most important problem to be addressed is stormwater runoff. In the East Boardwalk area, the summer of 2005 was wrought with constant flooding, causing damage to property and health risks due to the town pumping much of the water to the beach. Additionally, the town should implement and enforce an appearance clause to improve the visual and aesthetic look of the town. As many of the lots are small in town, provisions have to be made to allow existing homeowners to improve and maintain their properties as needed.
- You need more handicapped access to the beach area. I am electric chair bound and cannot use a manual chair because the bones are so fragile. My 30 year old son is chair bound due to cerebral palsy. My 85 year old mother is also chair bound. We purchased the cottage approximately 45 years ago and would enjoy our stays if beach access were more available.
- Failure of current stormwater and development regulations.
- The Circle (grove) is going to be overdeveloped - three high rise condos. Will there be any beach for families that come to spend the day? Atlantic Beach is overdeveloped also – we are going to “sink!” Slow it down; the lots are too small!
- There are a lot of changes in store for Atlantic Beach and while I am glad to see the Circle revitalized, the density issue is a real concern. Change is good but it needs to be well-planned. Developers do not need to be in control and call the shots even though there is much room for improvement. (Let’s get AB on par with Wrightsville). Trailers need to slowly disappear in favor of homes; condos but not high rise. There should be room for necessary business but good zoning is absolutely needed for us all.
- Quit planting palm trees; use local trees. Why try to look like Myrtle Beach? If Chamber of Commerce would slow down, not encourage tourists and newcomers, few of the above problems would exist. Voluntary newcomers are what we need not coerced ones.
- Please find a way to encourage Wally Coury to clean up his properties near Sportsmans Pier. This is an embarrassment to our visitors to our town.
- I’m very concerned about the overdevelopment of Atlantic Beach which is why I am not sure about a central sewer system. I’m also concerned about the loss of family recreation, i.e., the rides and Putt-Putt at the Circle and Jungleland. I wish the city had required Fred Bunn to at least keep a Putt-Putt in his development. We are also losing the piers! This is terrible!
- Sewer system is only beneficial to large developers and high density housing initiatives. Most existing homeowners are NOT in favor of higher taxes and fees to support sewer and stormwater projects that have no benefit to them. The loss of commercial/retail space within Atlantic Beach is becoming a critical issue. It continues to change the cultural nature of Atlantic Beach. If commercial space (restaurants, retail, etc.) are not available, residential development and quality of life for residents will be negatively impacted. The loss of commercial space must be reversed (e.g., Sportsman’s Pier, Atlantic Station, etc.).
- Please restrict growth of high density population. A sewer system will bring more development, more problems, and greater costs to the taxpayer. The less populated the beaches are, the more pleasant the experience of being in Atlantic Beach.
- Very disappointed in Atlantic Beach allowing the recent boom in close density of residential building. The town lied several years ago when they said Atlantic Beach would not turn into another Myrtle Beach. There is nothing for out-of-towners to come to, no more ocean piers, no place to access the beach. The two places left are already full on weekends. If you do not own ocean property, you cannot get to the ocean. Atlantic Beach is no longer a family town, but tax revenue hungry. Not a nice place to live anymore.

- What I am most interested in is growth with nice restaurants and things like Myrtle Beach has for people to do. It seems Atlantic Beach is not bringing those things to the community! Also something needs to be done to keep main channels open in the sound.
- Residential development needs to be restricted. Island is capable of holding only so many people. Development of Circle does not need high rise condos. Need to maintain commercial development in Circle. Everyone I talk with is satisfied with septic tank system and does not think we need sewer system. It is a good thing that city has purchased Food Lion property – would be a good location to move city offices, etc. Need to maintain marsh areas and not let them be filled in for residential use as some have done – continue beach renourishment from Brandt Island and not let others get this sand as there is only a certain amount.
- 100% against what's going to be done with the high rise condos in the Circle.
- I'm from Eastern North Carolina and love Atlantic Beach. It's been a family beach. Now with the piers being torn down and condos in their place, I feel it's being turned into a smaller Myrtle Beach. If buildings continue to be built on this narrow island, I can envision in years to come the sinking (of an inch or so) of the land. Where is all this sewage from more condos going to go? We only have so much land!! We expect the town's Planning Board to protect the land for us and our grandchildren. We feel Big Money is more important than protecting our environment.
- Density such as new development west of Atlantic Station is out of control. Distance between new construction should be at least 10 feet as it originally was at Atlantic Beach.
- We need traffic lights in high density areas. Public beach access and parking should be at the Circle. Bring back a Ferris Wheel (which was a symbol of Atlantic Beach). Regulations to stop this from becoming another Myrtle Beach.
- Utilize parking meters to defray costs of creating additional public beach and sound access locations.
- I find it interesting that there is no reference to needed pedestrian/bike improvements, e.g., extension of sidewalks and addition of crosswalks. I do not view AB as very pedestrian-friendly, and efforts should be made to improve in this regard.
- Beach renourishment/maintenance and waste management are critical to the future and development of the Crystal Coast. Let Atlantic Beach lead the way.
- I am extremely concerned about Amusement/Activities leaving Atlantic Beach (Jungleland and "The Circle"). I am also concerned about sewer and OVERDEVELOPMENT – too many houses on too little land – too many bad septic tanks and problems. I feel the completion of sidewalks needs to be a priority and bikes should be allowed on them as an alternative to automobiles (may alleviate some car congestion!)\_ Also need more public beach access AND parking for it.
- We need to consider making people with rental properties keep them up – clean and neat – yards neat and clean – void of trash and old junk. As example, across from us on corner on West Boardwalk.
- Encourage tasteful development. Create sewer system. Upgrade redevelopment.
- Sidewalks along 58 – finish the project to city limits.
- Without commercial business, residential expansion cannot offer attraction for family participation. With regard to stormwater runoff, there are grants available that should be pursued, charges to property owners should be last resort. I support property tax increase to support bond,

or other revenue source pay off. Traffic problems seem to only exist during the peak tourist time. This is true for any tourist town.

- One of the most pressing issues regarding planning for the future of Atlantic Beach to me is the rate at which growth is occurring (particularly housing). With the exception of increased town revenue, it seems that this rapid growth has only negative effects, i.e., traffic congestion, increased stormwater runoff, and enhanced sewer problems. I hope the town can somehow preserve some of the quaintness and sanity that has been enjoyed for many years.
- A study should be administered to determine what is most important – the removal of stormwater runoff and the effect it would have on the septic tank systems on the beach. If stormwater is disposed of properly, will existing septic tanks working properly? At this time and with future growth, runoff water should take priority before future commercial and residential growth and sewage system is considered. Feel very strongly that the new building in the Circle area are too tall. Ruin the effect of the beach area. Poor judgement and bad mistake! The appeal of Atlantic Beach is the “small town” feel. Don’t want to see another Myrtle Beach!
- I understand that Jungleland is being torn down. If this is true, what recreation places will be available for young children and teens. Atlantic Beach will not be a popular choice for vacation without things for them to do. Better start looking into a place for kids to play.
- Particular attention to density of future development is essential. The whole world cannot move comfortably and safely to Atlantic Beach. Bigger is not always better!
- Atlantic Beach must start planning and budgeting for the water way and canal maintenance. This is one of the major attractions for Atlantic Beach and should be maintained.
- There should be a moratorium on high density housing and condos. Cramming big houses and condos on tiny lots is going to cause big problems – demands on the government town services – water, sewage, traffic, etc. – everyone will have to pay for the excesses of a few developers who’s additional population will stretch the town’s resources over the limit as well as environmental degradation, for both pollution and aesthetics. We have and are destroying the reasons people come to our beach. We now have fresh water runoff percolating through the sand to the ocean at low tide as seen by the green algae evident in the rivelets of draining water. I wonder where its coming from? YOU GUESS!! STOP – HIGH DENSITY – NOW
- No more high density developments. No more high rise buildings. Development of shopping strip of old Food Lion.
- We have owned our beach cottage for 30+ years. The flooding problem worsens each year. The pumps that the town has installed to accommodate rainwater runoff cannot handle the water even during hard summer storms. I have to wear boots to come in and out on occasion. My neighborhood suffers from flooding, mosquitos, and odors – most of my neighbors are long time residents. People want to buy us out and demolish our houses. We just want to make things liveable. “Ophelia” caused flooding everywhere. I am still recovering from that.
- Commercial property should be self supporting. Over two-family housing should be regulated to restrict density. Houses over three stories should be restricted.
- Would like to see a govt run fishing pier near Fort Macon. With the closing of piers on the island, few and fewer will remain. Disappointed in the destruction of the Triple S pier and miniature golf course on the island. Also more high density development will only add more congestion. Would like to see sewer run all the way up to north Atlantic Beach city limits.
- Atlantic Beach needs less condos and more family activities to bring vacation people here because now that Jungleland and the Circle are gone, what is here for them after the beach. Soon the piers

will be gone and fishing as we know it will be to. We need to fix this before it bites us. Condos are great but we need more than housing.

- Inconsistency of building permit decisions and punishment of violators. Lack of enforcement of leash laws.
- The town needs to demonstrate progress in rebuilding (or development) of the Circle. Just tearing down old structures is not enough. The public support for the town's "Circle Redevelopment" will quickly erode if the Circle sits empty much longer.
- I am definitely against high density development such as high rises – that's why I'm against development of a sewer system – it will lead to higher density. Please don't turn Atlantic Beach into Myrtle Beach – keep it a small town family oriented beach. I'm tired of Atlantic Beach being a public servant for Fred Bunn! My family has had property in Carteret County since 1945 and I hate what's happening to it.
- Replace activities for young people that development has taken away. Children don't have much to do!!
- No large condos at the Circle – short stay rooms and not too many (100) small units! Public beach house for changing clothes and bathrooms at the Circle. Upgrade your own buildings to quality building (police, fire, etc.) to set the mark on what you expect for others to look like. Be an example! Improve landscaping where possible.
- More landscaping coming over the bridge to Atlantic Beach and a Welcome Center.
- Pedestrian access should be improved in the crossing of 58. It is almost impossible to cross at intersection of AB causeway and Fort Macon Road (especially with grandchildren in tow). I know it is a DOT related problem etc., but it would cut down on traffic. Residents that I know that live on the sound side drive their cars to the Circle because they can't cross the street.
- There should be large recycling containers provided for condos, apartments. Now everything is thrown in the refuse collectors – smaller for resident's houses. The town does a poor job on enforcing pedestrian crosswalk violations by drivers. You take your life in hand when you try to cross. Also, little value received for Carteret County taxes! Thanks for the opportunity for input.
- Non-resident property owners should have vote as to what goes on with the Town of Atlantic Beach local government. We do pay taxes and utilities. Thank about it. Thanks.
- Develop the Circle so that we can have good restaurants that overlook the ocean. They should have large outside areas. Let's get rid of the bars and attract a better class of people. A dance hall at the ocean would be great.
- I really hope that the charm of Atlantic Beach can be saved. I would hate to see high rise condos and multi-million dollar homes take over all the older smaller homes and mom & pop motels. I feel every one should have a chance to enjoy our beautiful coast. Maybe families can't afford to rent 8-bedroom homes but can afford to stay at the Caribee Inn. Even the "tacky" trailers (that's what my friends call them) have a certain charm and a place for average families to spend some time together at their own piece of heaven at Atlantic Beach.
- As you come into Atlantic Beach and shop at the main stop light, you should be able to look out at the Circle and see beauty. Maybe US, NC, and Atlantic Beach flags flying – a nice brick marker with "Welcome to Atlantic Beach," etc. Flowers, shrubs, etc. Maybe park benches and small trees around swings sets for children.
- More transportation options. Continue landscaping efforts.

- Atlantic Beach will never be what it was if you design a sewer system.
- While I support continued redevelopment of “The Circle,” I am concerned with the parking impact on surrounding property owners. As one of the owners, I would ask what the Town of Atlantic Beach will do to stop users of traditional beach access at the Circle from parking at surrounding property; this would impact rental clients parking and infringe on those property owner’s rights.
- We have been coming to Atlantic Beach for 20 years and have seen many changes. Now we own our house for four years and are planning on retiring there. The center of town needs a lot of attention “traffic” congestion. Water quality should be worked on to get better each year. Try to stop putting houses so close together.
- The “Circle” needs to remain an attraction for families and day trippers.
- Due to development, public beach access is beginning to be a problem.
- We, the town, need additional beach access that includes parking. I’ve watched the town evolve over the past 40 years, some good and not so good changes have occurred. The loss of beach access is by far the most devastating to the family beach experience. I would propose that all new development provide access with parking for the property owners of the town, no charge. A formula needs to be implemented based on size of development and number of proposed inhabitants and/or business use volume. Pier parking and access is all but evaporated due to development. This loss of access and parking needs to be corrected.
- Traffic congestion on 58 is a huge problem. I think if there were a few more traffic lights it would better pace the congestion.
- The infrastructure of Atlantic Beach is great. I develop land all over North Carolina and have never run into a group of town officials as good as Atlantic Beach. My only concern is that the Town Board does not understand the needs of the town due to the growth that is expected. As far as the Circle is concerned, please move slowly so as to keep the integrity of Atlantic Beach.
- We are one of the property owners hit particularly hard by the stormwater problems. Creative efforts and solutions have met with little success. Anything we might do to fill our property and solve our problems will seem to result in creating a major problem for neighbors. Assistance from the town or ideas and solutions is certainly welcome.
- Area sewer system, in my mind, should be the priority. As regulations and demands increase, this will be a very important factor.
- With the land and housing prices reaching the levels they are, the average person will not be able to afford a stay at the beach. So that the ocean resource is not lost to the average person, more public beach access will have to be developed.
- The beaches and water must be kept environmentally clean. If a sewer plant is the answer, make it an efficient one and charge homeowners. A polluted beach and sound would be of no use to anyone.
- “The Circle” - town should focus on trying to provide for all citizens, not just privatized development, would hope something can be done to provide for children’s need for entertainment. Public sewer must be done at all cost as long as cost is effective – everyone knows it will take extra taxes.
- Public boat ramp locations – Where are they? Where do you park your vehicle and trailers? Nothing for kids to do at Atlantic Beach.

- First, a comment. It seems, through the wording of the Mayor's letter..."a willingness to share"...and the caveat in almost every question regarding "fees," "expenditures," "resources," that there is already an internal agenda in place regarding these issues – could that be so? That said, I believe the town has done a good job in the past. I believe, however, if the sewer problem is not solved that it will control all other issues regarding density, commercial development, sound and ocean water quality, etc. eventually.
- They are building those high rise townhouses too close together on too small a lot. One story or two story single-family house on a lot, not a 3-story high rise. The whole development will go in a fire. You can reach out your arms and touch the houses. When I built there was a 10 foot minimum setback from the property line. That would put at least 20 feet between each house.
- Maximize cooperation with other towns for mutual benefit, such as beach renourishment.
- Atlantic Beach has long been a "family and fishing" oriented area. Unfortunately, it is evolving into a wealthy area and much of the charm and quaintness is going by the wayside. Personally I don't think "The Circle" should be turned into Fred Bunn's idea of a shopping mall. The "Pavillion" was a place where families went after spending the day fishing or at the beach. The big picture needs to be addressed. The public areas are fast becoming part of the private sector and local businesses cannot survive. Atlantic Beach needs to maintain its integrity and not become another Myrtle Beach.
- The island needs a third bridge. Town needs program to keep channels open west of the bridge.
- Some measure should be taken to make at least one remaining pier a state park or funded somehow to keep one permanently. Stop planting trees not native to this area. We are not Florida. We must slow the high density residential growth.
- Dredge the canals to the ICW.
- No common sewer system, septic tanks when they are well maintained do a great job in waste removal. Reduce the number of high density homes. No more space should be allowed for them. We are losing the identity of Atlantic Beach. More parks and rec areas would help with tourism.
- We don't want to see commercial fishermen with their vehicles on the beach – restrict access to protect fishing for residents/tourists. Water quality and controlled growth are very important.
- Although I have completed this survey, it is too late. The city officials have given this once beautiful town away to developers. Where is recreation for our children and grandchildren? Where is the joy of pier fishing in our town? It is a very sad day for Atlantic Beach.
- As a property owner at Island Quay, we are on the way to paying a large sum of money per residence for a new water and sewer system. If the City of Atlantic Beach put this into place, would Island Quay residence we excluded? If not, we need to be considered for the money spent for our own system. Island Quay/Sands Villa Board needs to be contacted with what the intent would be.
- I'm not sure what efforts are currently underway in the town. It seems as if we are being asked our opinion after the fact. Plans are already underway to build 10 story buildings in the Circle. I think that's too tall. Three stories should be max. Ten story buildings should create quite a traffic nightmare. The Triple S pier is being torn down as I write (a sad day). Where will all the fishermen go to fish? The motels where they stayed are being converted to condotels and are being marketed as within walking distance to the pier that all knew was scheduled to be torn down. When is a motel not a motel? Trees and vegetation are being stripped out to make way for cluster developments creating stormwater runoff issues. Jungleland – one of the few

recreational areas is to be torn down. I would like to see building height restrictions in well-planned communities with a balance of vegetation and landscaping. I would like to see the piers protected for public use.

- The Carteret County Chamber is concerned that hotels being purchased for condo development minimizes the tourist industry and its revenue. As a five month resident, I am concerned that we will not continue getting beach renourishment by the Corps of Engineers if we do not have public access to the beach. What is the use of sewer at sea level with no where to pump it? If we continue to see houses with almost adjoining decks, we will loose our marsh areas. Zoning should be #1 priority – brush and crepe myrtles should be preserved and used only for the widening of Fort Macon NC 58 highway. The environmentalist defeated pumping anything to First Colony Farms for sewer and stormwater runoff. Though important is usually to expensive to collect, treat and put out for irrigation.
- I feel we should slow down and control high density development. The town commissioners should be more concerned with what the citizens of Atlantic Beach want and stop catering to developers who don't even care about our lifestyle and community.
- See attached typewritten comments.

### WEBSITE RESPONSES

- In my opinion there are four priority issues to focus on: (1) sewer system; (2) stormwater management; (3) insuring the continued renourishment of the beach; and (4) maintaining the Town as a “family” spot and discouraging high rises in town. If the Town can find a way to accomplish these goals, the large majority of residents will benefit and Atlantic Beach will move forward as a great place to live.
- Keep property tax in line or better yet reduce them.
- Continue redevelopment in “The Circle.” Try to retain commercial businesses with adjoining parking. Continue efforts in beach renourishment.
- Most pressing need to me is having sidewalks, bike paths, parks, cafes within walking/biking distance of my home on Ocean Ridge.
- There are too many high density condo type developments on the beach already. This type of development has created problems in areas of septics (need for sewer) water supply, traffic, and has also restricted ocean and sound access. Commercial/recreational entities no longer exist for the year round or vacationing families. The current beach accesses are over suscribed, poorly managed and are now used as little more than dog runs/and littered with dog droppings - the Circle was once a thriving arcade area and night spot - "A destination for summer visitors" now it is a wasteland - barron clean - but without charm. Circle suggestions:
  - Merry-go-round,
  - Band shell for summer concerts,
  - Fresh water wading pool,
  - Sailing lagoon for childrens boats or remote boats,
  - Some cement tables and benches with built-in checker boards for checkers or chess,
  - An old fashion ice cream stand or parlor/decorated Pepsi era historic,
  - A promenade or boardwalk area,
  - Shuffle board courts,
  - Baci ball courts,
  - An outdoor roller rink with dress code & organ music,
  - Could also be used as outdoor dance area events "shag night".

The overdevelopment of the beach by 'condo' building has created a shortage of recreation for children and adults alike. Atlantic beach was known as the "Atlantic City" of the South before Atlantic City became a gambling area. It has become a character-less wall of condo's and has lost its "CHARM". The 'charm' of places like Cape May, NJ., Point Pleasant, NJ., Tarpon Sp. Fla., Key West, Fla., is that there has been a blend of Old and New. This blend is needed for Atlantic Beach. It lacks (lost its beach/character) to condo development.

PS. The view of Atlantic Beach from the crest of the bridge SHOULD NOT BE A WALL OF CONDO'S – If condos go through than flanking the view or framing the view would be more desirable. Arcade parking area.

- Beach access and parking needs to become a priority with the Circle redevelopment and closing of commercial firms with beach access (piers), the property owners of non-oceanfront homes are losing beach access at an alarming rate. Many of the town's access points have very limited parking and few facilities. The loss of beach access can significantly impact revenues for local businesses, particularly restaurants and grills. Tax dollars should not be used to fund beach renourishment if the taxpayer does not have access to the beach they paid for. High density development needs to be severely limited. This type of development will bring problems such as increased crime rates, both personal and property crimes, increased congestion, increased costs for town services, a less pedestrian friendly environment, more parking issues, and countless other problems. High density development may be done well, but the lack of adequate planning of such developments with the sole purpose of developers taking advantage of a strong real estate market will bring these issues. High density development only needs to be allowed when there is attention paid to increasing a sense of community and improving livability for all of these who live in or visit Atlantic B each. High density development allowed as it has been will only magnify the problems the town is experiencing. The town needs to focus on eliminating stormwater runoff. The runoff is too damaging to wildlife and may present a health hazard to all who use the public waterways.
- I do not support a sewer system. I do support maintenance/inspections of current systems every 3-5 years. Damage or inoperability of 1 small system is not nearly as damaging as one large system failing. Roads are already a huge concern with the large traffic volume during the summer. To allow more development without allowing the road structures/systems to catch up is not fair to anyone. Traffic is just frustrating.
- AB should be proud of the diverse affordability it has always had. It has always been able to offer something within everyone's budget whether it was a house, a trailer on a leased lot, or a vacation rental. You should not have to be wealthy to enjoy what this wonderful place has to offer but unfortunately this is becoming more a reality. Town leaders must control development and not let the development control them. The best leaders are those who are not afraid to say no once in a while because at times it is necessary. Overdevelopment comes with demands that will have to be addressed and will come with a cost of even more than money. AB has always been a great place for day trips. This should be encouraged and the people that come should be made to feel welcome. There must be more public parking and beach access. These day trips are what made us fall in love with AB to start with.

**Appendix III**  
**Policy/Implementing Action**  
**Definitions of Common Terms**

1. Should: An officially adopted course or method of action intended to be followed to implement the community goals. Though not mandatory as “shall,” it is still an obligatory course of action unless clear reasons can be identified that an exception is warranted. Town staff and Planning Board involved at all levels from planning to implementation.
2. Continue: Follow past and present procedures to maintain desired goal, usually with Town staff involved at all levels from planning to implementation.
3. Encourage: Foster the desired goal through Town policies. Could involve Town financial assistance.
4. Enhance: Improve current goal to a desired state through the use of policies and Town staff at all levels of planning. This could include financial support.
5. Identify: Catalog and confirm resource or desired item(s) through the use of Town staff and actions.
6. Implement: Actions to guide the accomplishment of the Plan recommendations.
7. Maintain: Keep in good condition the desired state of affairs through the use of Town policies and staff. Financial assistance should be provided if needed.
8. Prevent: Stop described event through the use of appropriate Town policies, staff actions, Planning Board actions, and Town finances, if needed.
9. Promote: Advance the desired state through the use of Town policies and Planning Board and staff activity at all levels of planning. This may include financial support.
10. Protect: Guard against a deterioration of the desired state through the use of Town policies, staff, and, if needed, financial assistance.
11. Provide: Take the lead role in supplying the needed financial and staff support to achieve the desired goal. The Town is typically involved in all aspects from planning to implementation to maintenance.
12. Strengthen: Improve and reinforce the desired goal through the use of Town policies, staff, and, if necessary, financial assistance.
13. Support: Supply the needed staff support, policies, and financial assistance at all levels to achieve the desired goal.
14. Work: Cooperate and act in a manner through the use of Town staff, actions, and policies to create the desired goal.