

# COASTAL NORTH CAROLINA SOCIOECONOMIC STUDY

## VOLUME III

### BASE CASE CHARACTERIZATION: COMMUNITY STUDIES

Submitted By:

THE INSTITUTE FOR COASTAL AND MARINE RESOURCES  
AND THE DEPARTMENT OF SOCIOLOGY  
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GREENVILLE, NORTH CAROLINA

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# **FINAL TECHNICAL REPORT**

**FOR THE**

**COASTAL NORTH CAROLINA SOCIOECONOMIC STUDY**

**VOLUME III**

**COMMUNITY STUDIES**

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### List of Acronyms

adt	average daily traffic
AFDC	Aid to Families with Dependent Children
BLM	Bureau of Land Management
CAMA	Coastal Area Management Act, State of North Carolina
CCEDC	Carteret County Economic Development Council
CCSA	Carteret County Sportfishing Association
CNCSS	Coastal North Carolina Socioeconomic Study
COA	College of the Albemarle

CP&L	Carolina Power and Light
DMF	Division of Marine Fisheries, State of North Carolina
DVAC	Dare Voluntary Action Center
ECU	East Carolina University
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
EMT	Emergency Medical Technician
ESRP	Environmental Sciences Review Panel
FOY	Friends of Youth Organization
GIS	Geographic Information System
HIV	human immuno-difficiency virus
HUD	Housing and Urban Development
IAI	Impact Assessment, Incorporated
ICS	Incident Command System
lp	liquid propane
MCEMS	Morehead City Emergency Medical Services
MCPD	Morehead City Police Department
MCPWD	Morehead City Public Works Department
MFCMA	Mangnuson Fisheries Conservation and Management Act
MFD	Manteo Fire Department
mgd	million gallons per day
MMS	Minerals Management Service, U.S. Department of the Interior
NCBBA	North Carolina Beach Buggy Association
NCCF	North Carolina Coastal Federation
NCDOT	North Carolina Department of Transportation
NCFA	North Carolina Fisheries Association
NCSH	North Carolina Sea Hags
NPS	National Park Service
NEPA	National Environmental Policy Act
NHCA	Nags Head Civic Association
NHSFC	Nags Head Surf Fishing Club
NHVFD	Nags Head Volunteer Fire Department
NPS	National Park Service
OBCF	Outer Banks Community Foundation
OBF	Outer Banks Forum
OCS	Outer Continental Shelf
OCSLA	Outer Continental Shelf Lands Act
OCSLAA	Outer Continental Shelf Lands Act Amendments
OPA	Oil Pollution Act of 1990
ORWs	Outstanding Resource Waters
SOV	Save Our Village
STD	sexually transmitted disease
TEMC	Tideland Electric Membership Corporation
TED	Turtle Excluder Device
UPI	United Press International
USDA	United States Department of Agriculture
USGS	United States Geological Survey
WCA	Wanchese Christian Academy
WIC	Women Infants Children
WSIP	Wanchese Seafood Industrial Park

### **3.0 BASE CASE CHARACTERIZATION: COMMUNITY STUDIES**

The Coastal North Carolina Socioeconomic Study was conducted to assist the Department of the Interior in decision-making processes related to oil and gas exploration offshore North Carolina. The study follows the recommendation of the Environmental Sciences Review Panel (ESRP)<sup>1</sup> that current socioeconomic and sociocultural conditions among potentially affected populations should be documented prior to exploration for oil and/or gas along the North Carolina Outer Continental Shelf (OCS).

The study products include: the Counties Volume which describes the five study counties of Dare, Hyde, Carteret, Beaufort, and Pamlico both individually and in aggregate, this current volume; the Pile Sort Data and Analysis Volume which provides some of the raw data collected and analysis of the data gathered within the perceptual component of the study; the Socioeconomic Monitoring Design and Methodology Volume which presents a plan for monitoring change in the study counties and communities and also describes the research methods used in the current project; and, an executive summary which briefly reports the study's major findings.

The County and Communities Volumes provide base case socioeconomic and sociocultural information about the regions adjacent to proposed OCS-related activity offshore North Carolina. This information is intended to provide the sponsor with a "snapshot" of conditions within these areas. The Communities Volume describes historical and current sociocultural and socioeconomic conditions in seven communities located within the project study area: Wanchese, Nags Head, and Hatteras in Dare County, Ocracoke in Hyde County, and Atlantic, Beaufort, and Morehead City in Carteret County. The volume also includes an appendix that characterizes the two areas considered as potential landfall sites if oil development were to proceed: Hampton Roads, Virginia, and Morehead City, North Carolina. Description of the large urban Hampton Roads area, the closest major port to the Manteo Prospect area, is included as an appendix since descriptive coverage was undertaken at a different level of analysis than in the rural small rural study communities in North Carolina. Description of the North Carolina state port facility in Morehead City is also provided in this appendix.

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<sup>1</sup> The Environmental Sciences Review Panel (ESRP) was appointed in December 1990. The Oil Pollution Act (OPA) of 1990 directed the Secretary of the Interior, in cooperation with the State of North Carolina, to appoint this panel to assess existing information necessary for the Secretary to make decisions regarding permitting, leasing, exploration, and development offshore North Carolina. The ESRP identified informational inadequacies and recommended that a comprehensive socioeconomic study be undertaken in the potentially affected region.

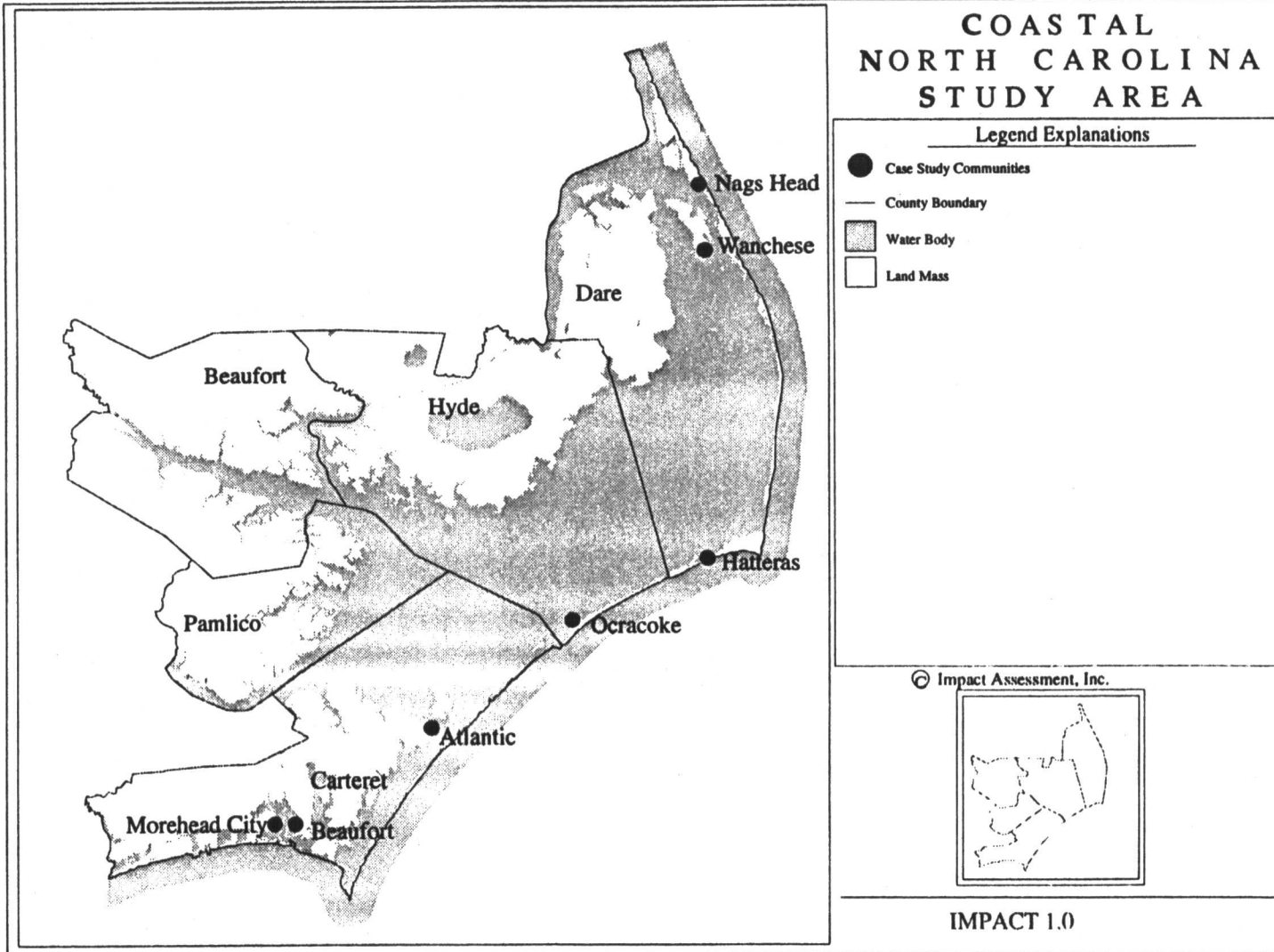
### **3.1 INTRODUCTION: INTERCOMMUNITY COMMONALITIES AND VARIATION**

Each of the seven communities described in this volume was selected for research on the basis of proximity to the Manteo Prospect and the associated potential for sustaining social or other human impacts as a result of OCS-related activity. Communities were chosen to represent the range of characteristics pertinent to understanding social conditions in the region. For instance, since fishing is one of the principal industries in the area, communities with individuals and families involved in both the commercial and recreational sectors of the industry were selected for study. Communities involved in tourism, another regionally important industry, and in a mix of tourism and fishing were selected. Population size was considered in selecting the study communities and those chosen represent the range of size typical in the region. Communities located adjacent to both the Atlantic Ocean and to the Pamlico Sound were chosen for study. Further, since each of these characteristics may be associated, individually or in combination, with the potential social impacts of oil exploration/development, communities were also considered on the basis of potential for undergoing OCS-related change within specific components of the community. For instance, the potential for change associated with OCS landfall facilities and operations was also considered. Communities were selected to represent the range of social variables that could be affected by landfall facilities.

#### **3.1.1 Physical and Biological Environmental Overview**

The seven study communities are within the coastal region of central and northern North Carolina. Wanchese, Nags Head, and Hatteras are in Dare County; Ocracoke is in Hyde County; and Atlantic, Beaufort and Morehead City are in Carteret County. Wanchese is on Roanoke Island roughly five miles west of Nags Head on the northern Outer Banks. Hatteras is roughly sixty miles south of Nags Head on the southern tip of the Hatteras Island portion of the Outer Banks and Ocracoke is an island community located roughly thirteen miles south of Hatteras on the Ocracoke Island portion of the Outer Banks. Atlantic is on the mainland roughly five miles inland from Core Banks. Beaufort and Morehead City, separated by some two miles, lie inland from Shackleford and Bogue Banks barrier island systems. Although all of the study communities share close proximity to the Atlantic Ocean, only Nags Head, Hatteras, and Ocracoke are located directly adjacent to the sea.

Each study community is near large tracts of federal land. Wanchese is near Alligator River National Wildlife Refuge; Nags Head, Hatteras, and Ocracoke are within the Cape Hatteras National Seashore; Atlantic is adjacent to the Cedar Island National Wildlife Refuge; and Beaufort and Morehead City are next to the Rachel Carson National Estuarine Sanctuary. Such proximity to government-owned land constrains population growth. On the other hand, living adjacent to protected land is attractive to many residents, and the parks and reserves are important factors in drawing tourists to the areas.





Map 3-2 Historical Map of the Region



There is little physical or biological environmental variability between the seaside and soundside communities. The beach communities do exhibit some unique biota and physical attributes such as the beach-dune complex and associated species, and the soundside communities are generally more densely wooded and harbor a greater variety of land mammals. However, the two beach communities also have a "sound side," the western shore of the Pamlico Sound. Thus, they share biotic and physical environmental characteristics with the soundside communities.

There is slight variability in climate across the study communities. Nags Head and Wanchese have slightly colder winters and water temperatures since the cold Labrador Current flows near shore. Ocean breezes help cool this area during the summer months. The close proximity of Hatteras and Ocracoke to the Gulf Stream moderates the winters, and warmer water temperatures here are common. As with all of the study communities, Atlantic, Beaufort, and Morehead City experience moderate winters and hot summers.

In sum, the physical and biological environments of the seven study communities are associated with the Atlantic Ocean and its estuaries. Storm-generated winds, tides, salt water and air, and other ocean forces combine to shape the physical features of the region. The environment also supports production of numerous living marine resources and offers unique possibilities for travel and transportation.

### **3.1.2 Regional Chronology**

Wanchese is the oldest community in the study area. It was settled by the English in the early 17th century. Nags Head, Hatteras, Ocracoke and Beaufort were settled in the early 18th century and served as points of arrival and departure for seafaring colonists, pirates and traders throughout the early years of our nation. Atlantic was settled in the mid-18th century and remains a small and relatively isolated fishing community. Morehead City developed from a small rural fishing and agricultural outpost during the mid-19th century to an important deep water port during post-civil war years.

### **3.1.3 General Demographic Characteristics**

The seven study communities are small towns in terms of their permanent populations. Wanchese has a population of 1,380, Hatteras has 1,660, Ocracoke 713 and Atlantic 808. Beaufort and Morehead City are larger. Beaufort is a community of 3,808 persons and Morehead City is home to 6,046. Beaufort and Morehead City also have significant populations in adjacent outlying areas. Morehead City Township includes 12,339 persons outside the municipality and Beaufort Township includes 3,166 persons (U.S. Bureau of the Census 1990).

Nags Head grew over eighty percent between 1980 and 1990 (please refer to Table 3.1-1). Morehead City grew significantly, almost thirty-nine percent, over the last ten years. Wanchese grew by almost twenty-five percent. Much of the growth resulted from the migration of new residents from out-of-county and out-of-state to the coastal zone, a phenomenon with considerable implications for the social structure and cultural landscape of this once relatively isolated and homogenous region. For instance, land values and taxes have increased, and demands for new physical and service infrastructure have developed.

In the face of rapid growth in Nags Head, planners have struggled to maintain an atmosphere of an aesthetically pleasing, family-oriented beach resort despite a changing landscape of malls, new housing and other structures. Morehead City has always been more urban than the other communities, and its growth has been absorbed with less social impact. In Wanchese, growth has reportedly diminished the feeling that the town is a highly integrated fishing community. Some residents believe the presence of newcomers has changed the town's social structure. Kinship and family ties are important, and distinctions are made between new arrivals and locals. In Hatteras and Ocracoke, as well, social status is ascribed partly on the basis of length of residence and family genealogy. Growth in these communities has been minimal, however. The population in Atlantic has remained constant over the last ten years, not surprising since the town offers few employment possibilities beyond commercial fishing. The static population in Beaufort relates more to limited availability of developable land than to job opportunities or its attraction as a resort, as is evinced by the growth of the unincorporated areas of Beaufort Township. There, the population grew by almost twenty percent since 1980.

Table 3.1-1 TOTAL POPULATION OF STUDY COMMUNITIES, 1980 AND 1990			
	1980	1990	% change
Nags Head	1,020	1,838	80.20
Wanchese	1,105	1,380	24.89
Hatteras	1,550*	1,660**	7.10
Ocracoke	650	713	9.69
Atlantic	810	808	-0.25
Beaufort	3,826	3,808	-0.47
Morehead City	4,359	6,046	38.70

\* 1985 figure  
 \*\*National Park Service 1992; personal communication  
 Source: U.S. Bureau of the Census

There is very little racial or ethnic diversity in the seven communities. The study communities, with the exception of Beaufort and Morehead City, began as exclusively white communities and have remained so. Beaufort and Morehead City do have African-American populations, twelve and eighteen percent respectively. Many Black residents worked in the region's menhaden fishery. Similar percentages of African-Americans live in the outlying areas of Carteret County. Some inland counties on the western side of Pamlico Sound have communities and unincorporated areas with extensive populations of African-Americans.

Table 3-2 depicts summary household information by study community. Between 1980 and 1990, the number of households grew in the communities. Nags Head had the greatest increase, seventy-six percent. Morehead City also had a significant increase, fifty-eight percent, as had Wanchese at thirty percent. Ocracoke and Beaufort had experienced less change, at eleven and ten percent, respectively. Data for 1980 were not available for Hatteras and Atlantic.

Wanchese households were largest on average, with 2.7 persons per household in 1990. This is considerably larger than for other study communities, or the state average for 1985 of 2.6 persons. Morehead City had the smallest average household size with 2.1 persons. Wanchese also had the highest percentage of married-couple families with sixty percent in 1990, while Morehead City had the lowest percentage of married-couple families, at forty percent, and the highest percentage of female householder families, at sixteen percent. Atlantic had the highest percentage of male householder families, at four percent. The percentage of non-family households was similar across the communities, but again, Morehead City had the highest percentage, at forty-two percent.

**Table 3.1-2  
HOUSEHOLD INFORMATION FOR ALL COMMUNITIES, 1980 AND 1990**

Variable	Year/%Change	Nags Head	Wanchese	Hatteras*	Ocracoke	Atlantic	Beaufort	Morehead
Total Households	1980	436	394	n/a	280	n/a	1,557	1,698
	1990	768	513	1,077	312	352	1,721	2,692
	% change	76.15	30.20	-	11.43	-	10.53	58.54
Average Number Persons Per Household	1980	2.34	2.80	n/a	2.26	n/a	2.44	2.45
	1990	2.24	2.69	2.38	2.26	2.3	2.21	2.15
	% change	-4.27	-3.93	-	0.00	-	-9.43	-12.24
Percent Married-couple Families	1980	60.32	67.0	n/a	71.8	n/a	72.0	67.3
	1990	54.47	60.4	59.7	58.3	56.5	43.1	39.9
	% change	-9.70	-9.85	-	-18.80	-	-40.14	-40.71
Percent Male Householder Families	1980	1.83	1.5	n/a	0.0	n/a	0.6	0.4
	1990	2.78	2.5	1.85	1.3	4.0	2.4	3.0
	% change	51.91	66.67	-	-	-	300.00	650.00
Percent Female Householder Families	1980	6.42	8.1	n/a	2.5	n/a	15.9	11.8
	1990	11.43	9.4	6.87	9.0	7.3	17.0	15.6
	% change	78.04	16.05	-	260.00	-	6.92	32.20
Percent Non-family Households	1980	31.42	23.3	n/a	25.7	n/a	27.9	31.6
	1990	31.32	27.7	31.5	31.4	32.1	37.5	41.2
	% change	-0.32	18.88	-	22.18	-	34.41	30.38

\* figures for Hatteras Township  
Source: United States Bureau of the Census

**Table 3.1-3  
HOUSING INFORMATION FOR ALL STUDY COMMUNITIES, 1980 AND 1990**

		Nags Head	Wanchese	Hatteras*	Ocracoke	Atlantic	Beaufort	Morehead City
Total Housing Units	1980	1,812	460	n/a	439	n/a	1,772	1,979
	1990	3,117	583	1,861	604	352	2,085	3,206
	% change	72.02	26.74	-	37.59	-	17.66	62.00
Owner-occupied units/rel. %	1980	303	235	n/a	187	n/a	1,000	1,107
	1990	526/16.8	384/65.8	798/42.8	248/41.0	298/84.6	959/45.9	1,479/46.15
	% change	73.60	63.40	-	32.62	-	-4.10	33.60
Renter-occupied units/rel. %	1980	133	59	n/a	43	n/a	557	591
	1990	242/7.7	129/22.1	279/14.9	64/10.5	54/15.3	762/36.5	1,196/37.3
	% change	81.95	118.64	-	48.84	-	36.80	102.37
Mobile Homes/rel. %	1980	n/a	86	n/a	90	n/a	86	34
	1990	75/2.4	219/37.5	462/24.8	71/11.7	101/28.6	132/6.3	360
	% change	-	154.65	-	-21.11	-	53.49	958.82
Vacant Housing Units/rel. %	1980	188	7	n/a	52	n/a	177	239
	1990	2,349/75.3	70/12.0	784/42.1	292/48.3	74/21.0	364/17.4	531/16.5
	% change	1,149.47	900.00	-	461.54	-	105.65	122.18
Vacant for Seasonal Use/rel. %	1980	15	1	n/a	18	n/a	38	42
	1990	955/30.6	10/1.7	490/26.3	142/23.5	38/10.7	146/7.0	277/8.6
	% change	6,266.67	900.00	-	688.89	-	284.21	559.52

Source: United States Bureau of the Census

The most significant change in total housing units occurring between 1980 and 1990 was noted in Nags Head, followed by Morehead City (see Table 3.1-3), as might be expected from similar population increases in these communities. Beaufort experienced the smallest percentage change among the communities. Atlantic had the smallest number of housing units in 1990 with 352.

Atlantic and Wanchese had the greatest number of owner-occupied units in 1990, at eighty-five and sixty-six percent, respectively. This is expected since these communities have higher concentrations of fishing families with long histories of residence. Nags Head had the smallest percentage of owner-occupied units at seventeen percent, due to the significant number of persons who own second homes but occupy them only seasonally. Morehead City had the highest percentages of renter-occupied units in 1990, thirty-seven percent, while Nags Head and Ocracoke had the lowest percentages, eight percent and ten percent, respectively. Residence in mobile homes in 1990 was highest in the community of Wanchese, at thirty-eight percent, followed by Hatteras, at twenty-five percent. Nags Head had the smallest percentage of mobile home occupation, at about two percent. The rate of vacant housing was very high in Nags Head, at seventy-five percent and about thirty-one percent of the vacant units were for seasonal use. Both of these figures describe the seasonal and fluctuating nature of residence in Nags Head. At under two percent, Wanchese had the smallest percentage of units vacant for seasonal use, again indicative of its status as a fishing community rather than a vacation destination. Hatteras and Ocracoke had twenty-six and twenty-four percent of housing units designated for seasonal use, respectively, suggestive of the moderately seasonal nature of residence in these towns.

#### 3.1.3.1 Seasonal Variation in Population

Because the North Carolina coast is an attractive vacation spot, seasonal variation in population is tremendous. It is notable in all the seven communities but is most significant in the seaside communities of Nags Head, Hatteras and Ocracoke. For example, during the off-season Nags Head is truly a small town, but its summer population can swell to 30,000 persons. Its wide variety of tourist accommodations is capable of handling this change; in fact, in many ways, Nags Head is organized to handle and encourage a high volume of tourism. Hatteras is similar, though on a smaller scale. This community can appear almost empty during the winter months but during the summer and fall months, is filled with many hundreds of vacationers. Ocracoke also experiences seasonal change; the town's population grew by about 2,500 persons during peak season in 1990. The non-permanent recreational population of Morehead City and Beaufort increased by more than fifty percent over the last decade (Holland 1992:1-19). The nearby beach communities of Bogue Banks -- Atlantic Beach and Emerald Isle -- absorb a much larger visiting population, however. The communities of Wanchese and Atlantic are not geared toward tourism, are not generally considered to be attractive vacation destinations, and have few hotels or restaurants.

Tourism and seasonal economic change are directly linked in the communities involved in tourism. Many residents of Nags Head and Hatteras, for instance, work hard to earn their living during the warmer months then may vacate to warmer climes during the winter. The summer months and, to a lesser extent, the active recreational fishing months, bring a large visiting population, a seasonal workforce, and an active local economy to Nags Head, Hatteras, Ocracoke, Beaufort and Morehead City.

### 3.1.3.2 Local Population Issues

Seasonal population change indicates that the North Carolina coast is an attractive vacation and leisure destination. Some visitors eventually buy second homes in the area or decide to make it their permanent home. This phenomenon is most pronounced in the immediate coastal communities, although Beaufort and Morehead City have also experienced some growth in this manner. Nags Head has always been geared toward tourism and acceptance of outsiders. Still, local population growth and second-home construction have been unprecedented over the last ten years. Coupled with seasonal expansion, these have spawned problems such as pollution, zoning disputes, and the need to update existing infrastructure. Hatteras has also experienced the effects of rapid growth, although the situation was worse in the nearby communities of Buxton and Avon where community government was less organized to plan for such change. The availability of potable water is a critical issue for all of Hatteras Island, and may eventually constrain its population growth. Ocracoke also experiences problems, largely a result of seasonal population change; traffic, sewer and water difficulties dominate the list. The communities of Beaufort and Morehead City have also experienced problems resulting from growth. Waste water problems are perhaps most notable in that part of the study area.

Atlantic is experiencing another sort of difficulty. The youth from many fishing families are leaving the community for job opportunities other than commercial fishing and are not returning. This leaves uncertain the future of the commercial fishing industry in a town where fishing has been the mainstay of the economy since its inception. The population of Wanchese has been fairly stable in the last ten years. Although it has grown since the 1950's, major observable problems associated with population change are not evident. Residents do feel, however, that growth is obscuring the community's kinship network.

Apart from difficulties with physical infrastructure, problems exist in the delivery of social services to the elderly. In the Hatteras area, for example, a growing number of retirees is finding that the isolated life on the Outer Banks is not as ideal as first imagined. In the words of a pastor in one of the Hatteras Island communities:

People come down here from other parts of the country and imagine a sort of paradise. But, after a while, they realize that there is a lot of hardship, that it's a long way to the hospital, to a lot of the things they are used to. I see so many people come and then leave us when they realize they'd be better off on the mainland.



### 3.1.4 Economic Characteristics

The study area's two principal industries are commercial fishing and tourism. Construction also has been an important source of revenue to the region, although there have been recent declines in housing starts. Tourism is vital to the beachfront communities of Nags Head, Hatteras and Ocracoke. Hatteras also has a small but stable population of commercial fishermen and offshore charter boats. Ocracoke shares in this industry, but to a lesser extent. The economy of Wanchese is almost exclusively driven by commercial fishing. From that community, independent and company-owned fishing vessels ply the waters as far as George's Bank in Newfoundland and as near as the sound waters adjacent to the community. Large packing operations also employ numerous residents. The economy of Atlantic is also based on commercial fishing. It is one of the biggest producers of seafood in the state. Beaufort, which also shares the commercial fishing industry, is known for its large menhaden fishery. Beaufort, with its regentrified status, shares some commercial activity with nearby Morehead City. Morehead City harbors some fishing vessels but has a diversified economy which includes a state port facility, many small businesses, and other seasonal and permanent enterprises.

The importance of specific revenue and employment sources varies across the study communities. Tourism/leisure and commercial fishing are the dominant industries, but there are other opportunities available in local or county government, and within the private sector. Residents in the Wanchese and Nags Head area have a variety of opportunities available in local, state and federal government agencies since the county seat at Manteo houses numerous government offices. Residents in Beaufort and Morehead City have a variety of opportunities available to them in government employment as numerous state and counties agencies are based there.

In the private sector, Wanchese is most dependent on commercial fishing, with little or no involvement in the tourism/leisure<sup>2</sup> or charter fishing industries. Nags Head is deeply involved in tourism/leisure, with some recreational fishing in charter, pier and surf fishing. A small commercial fleet earns a living from the water. In Hatteras, dependence on all three revenue/employment sources is roughly equal. Charter, pier and surf fishing attract many to the area and are an integral part of the tourism/leisure industry, which also benefits from activities such as sightseeing, surfing and windsurfing. Commercial fishing also is important to Hatteras, particularly during the colder months. Ocracoke's image as an attractive tourist destination underlies an increasing dependence on tourist-generated revenue. Lodging, restaurant and small retail establishments supersede commercial and charter fishing in economic importance, although surf fishing is an important tourist attraction. Commercial

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<sup>2</sup> Tourism/leisure is defined as all activities which generate revenue by attracting visitors to the community. For the sake of analysis, charter fishing is not considered part of this sector since it is an important industry in itself in the communities involved in fishing.

fishing is the economic mainstay in Atlantic and tourism/leisure and charter or other recreational fishing are not important. In Beaufort, the economic importance of tourism has surpassed local manufacturing. Commercial fishing and charter fishing remain important sources of local revenue and employment. Local manufacturing and port-related activity are important in Morehead City, as are the tourism/leisure (including charter fishing) and commercial fishing industries.

One indicator of economic conditions in the study communities is available in median housing values and median contract rent as depicted in Table 3.1-5. Housing units in the resort town of Nags Head were the most expensive in 1990, the median value being close to \$122,000. Homes in the "Downeast" communities of Carteret County were all similarly valued between about \$57,000 and \$61,000. Homes in the Dare County communities were valued higher, the median value in Wanchese being over \$75,000, and \$109,000 in Hatteras. The median value of homes on Ocracoke was \$101,000. It is notable that homes in the beachfront communities are valued higher than those located further inland. There are some regional market price differences as well since homes in Wanchese, which is some five miles inland from the beachfront, are not dissimilar in terms of quality of construction or size, than those in the non-beachfront communities in Carteret County.

The highest median contract rental rate in 1990 -- \$474 -- was paid in Nags Head, the lowest -- \$225 -- in Atlantic. Median contract rental rates reflect the same pattern as housing values. Landlords in the beachfront communities charge higher rent, while those some miles from the oceanfront charge less. An exception in this case is Wanchese, where median contract rental rates were similar to those in the beachfront communities.

<b>Table 3.1-5</b> <b>MEDIAN HOUSING VALUE AND MEDIAN RENT, ALL</b> <b>STUDY COMMUNITIES</b> <b>1980 AND 1990</b>		
Community	Median Value	Median Rent
Wanchese	75,200	326
Nags Head	121,900	474
Hatteras	109,000	334
Ocracoke	101,000	317
Atlantic	56,900	225
Beaufort	61,400	254
Morehead	56,600	270
Source: U.S. Bureau of the Census		

#### 3.1.4.1 Seasonal Variation in Local Economy

Since seaside communities are highly dependent on seasonal population expansion their local economies exhibit strong seasonal variation. Nags Head maintains a more active economy than most of the area's seaside communities over the winter months because its population is somewhat larger than the others. Because this resort is close to populated inland areas, it receives some visitors during the winter. During the tourist season, however, businesses in Nags Head employ a large number of both permanent residents and persons who come to the community to work for the summer. Nags Head is particularly popular in this respect among teens and college students from inland parts of the state.

Hatteras and Ocracoke are less active in the winter months than Nags Head. Virtually all restaurants and businesses close for part of the year. Economic activity slows drastically from Thanksgiving until Easter and progressively picks up from then until Memorial Day. Spring is a popular season for visiting fishermen when migrating species are active in the area. When schools let out for summer, business increases dramatically as families and individuals visit the communities for days, weeks or months. Rental cottages are usually booked throughout the summer months. Fall tends to draw a different crowd -- those savvy to the fall migration of fish and to the ideal weather conditions. The fall months are actually most popular for fishing-related businesses along the Outer Banks, although tropical storms and hurricanes can severely disrupt all outdoor activities.

There is a less pronounced seasonal economy in Beaufort and Morehead City. These locations do experience the seasonal tourism rush, but these communities are relatively more diversified in terms of business and industry. They also contain a larger permanent population with associated support services. These communities are linked to others in the region, e.g., Morehead City to the Cherry Point military facility, thereby providing consistent economic activity in some sectors throughout the year.

#### 3.1.4.2 Local Economic Issues

Given seasonal variation in economic activity, the need to maintain the viability of the beach communities as attractive resort destinations is critical to the welfare of the region's beach communities. Yet, the growing economy typically diminishes the aesthetic qualities of the area by reducing the amount of open space. It also places a greater burden on natural resources and greater demands on infrastructure. This is the most important current problem for North Carolina's beach communities.

Another important economic issue relates to growth -- the desirability of the coast as a place of residence brings a concomitant escalation in property values. Although development has been occurring at a rapid rate in the Nags Head area since the 1970's, and property values have increased considerably since that period, such changes just now are being experienced

in the Hatteras area. Many property owners there report they are having difficulty paying their taxes since their land is being assessed at increasingly higher values.

The communities of Atlantic and Wanchese are insulated from tourist activity, and therefore do not experience seasonal variation within that sector. Although the fishing industry is seasonally variable in productivity across species, fishermen are generally opportunistic and adaptable. That is, fishermen in these communities pursue whatever species happen to be available as long as the enterprise is economically worthwhile. There do appear to be some long-range problems in some of the fisheries, which may lead to decline in the economic viability of commercial fishing in North Carolina waters. Stress on the resource base resulting from environmental degradation, overfishing and natural cyclical change in living marine resource populations reportedly threaten the industry. The fishing-based economies of Atlantic and Wanchese may experience a more difficult future than those communities more dependent on a variety of businesses and industries.

### **3.1.5 Government Services and Related Issues**

Each of the study communities is served in varying capacities by its governing county. Wanchese, Nags Head and Ocracoke are within Dare County and receive government services from it. Nags Head, however, is an incorporated community and provides many of its own services. Hatteras is not incorporated, but does benefit from an informally organized community government, the civic association. Ocracoke is not incorporated, but its physical distance from Swan Quarter, the Hyde County seat, has made the community provide some of its own services and government. This has been a source of controversy for Ocracoke, and some residents desire to secede from Hyde County and join Dare County with the hope that better services will be afforded. Dissatisfaction with county government also is apparent in the unincorporated community of Atlantic where rural isolation makes service delivery by Carteret County difficult. Beaufort is the Carteret County county seat and enjoys close proximity to government services. Morehead City is incorporated but also benefits from close proximity to the county seat.

The rural and relatively isolated nature of some of the study communities has made delivery of local government services a difficult task. Some residents feel that the rural areas are slighted in that the more "urbanized" or economically more stable communities receive more and better service from the governing counties. Some residents in Hatteras and Wanchese in Dare County, and Atlantic in Carteret County complain that they are often underrepresented when policy decisions are made and that they are often left out of funding programs. This perspective is tempered, however, by a tradition of self-sufficiency and independence. Of course, from the perspective of county government, the issue is not one of neglect but rather one of logistics and available monies.

### **3.1.6 Physical Infrastructure/Land Use**

The development of adequate infrastructure has been a critical feature for all seven study communities. All are located in areas that were once largely inaccessible except by water or difficult overland travel. With the automobile, roads were constructed, bridges were built, and mainland and island areas were linked. The full potential of the changes was not fully realized until the early 1970's. By this time, a trend toward intensified development of the coastal zone was apparent. Existing transportation infrastructure allowed easy access to the area. Roads, bridges and other transportation infrastructure continues to be updated as needed to maintain accessibility. Particularly seaside communities, with their intense seasonal population shifts, have experienced need for rapid expansion of sewer and water facilities, electric power capabilities, and other physical infrastructure. Nags Head has required the greatest changes. Beaufort and Morehead City also have grown considerably during the course of the last twenty years. They have had to acquire the infrastructure necessary for keeping up with population growth. The development of the state port at Morehead City is perhaps the most significant infrastructural development in Carteret County and has opened up the area to a variety of new opportunities.

#### **3.1.6.1 Land Use**

Use of land varies across the study communities. Wanchese is largely residential but is also home to a large seafood processing facility at the Wanchese Seafood Industrial Park and numerous other marine facilities. The land here is, thus, directly related to its economic orientation -- commercial fishing. Similarly, Nags Head's land is largely used for residential purposes, but portions are oriented toward small commercial uses such as retail stores and restaurants. There is a similar mixture of commercial and residential land use in Hatteras, although it also has a focus on private and commercial marine facilities. In Ocracoke, land use is primarily focused on seasonal and year-round residence, although there is a small degree of commercial and marine-related use. In Atlantic, land use is linked to permanent residence and private marine facilities. Beaufort has a more urbanized atmosphere with a variety of land use. These include small commercial business uses, marine facilities, tourist accommodations and attractions, and permanent residences. This is also the case but on a larger scale in Morehead City. Morehead City uses more existing land in a commercial function than any of the other communities.

Each of the communities has a limited amount of land available for development. Further development of existing land eventually may be limited by factors such as the availability of water.

### 3.1.6.2 Infrastructure and Land Use Issues

Land use and land development are critical issues in the coastal zone. The ability of municipal and county governments to provide physical infrastructure needed to support intensifying use of the area is equally important. Carrying capacity issues are some of the most important issues for all coastal residents since continued growth is directly related to the capacity of the land and water to accommodate growth and change.

The availability or non-availability of water is becoming the biggest carrying capacity issue confronting the area. Coastal aquifers are finite resources and these sources are subject to saltwater intrusion as the fresh water supply dwindles. Hatteras and Hatteras Island, in general, have major problems with the drinking water supply.

Sewer problems are a critical infrastructure issue in the study communities. The question of how best to deal with waste water disposal in the coastal zone will continue to present problems in upcoming years since it is directly related to population growth and ultimately affects water quality in the ocean and sounds. The Carteret County communities are particularly involved with the waste water disposal problem. The issue has created some inter-community strife in that the rural communities fear that the expanding populations of Beaufort and Morehead City will eventually create a situation in which local waters are spoiled by sewage treatment facilities.

Another important infrastructure issue is related to the ever-changing nature of the barrier islands of the Outer Banks and the fragility of man-made structures such as bridges, roads and houses. The entire Outer Banks is subject to flooding as a result of ocean overwash that can occur during large storm events. State Highway 12, which parallels the ocean along the Outer Banks, is subject to periodic overwash, a situation that periodically strands local residents during the course of the year. Maintenance of the Herbert Bonner Bridge, which connects much of the Outer Banks to the mainland, has also undergone major damage as a result of storm-driven erosion and a maritime accident directly related to bad weather. The Carteret County communities also experience storm-related problems. Communities open to the northeast, for example, often experience flooding from wind-driven waters on Pamlico Sound. Solutions to problems such as these are always controversial since some solution is desired but none are without side-effects. For instance, assertions that jetties should be constructed to aid in protecting navigational routes to the ocean or to prevent the erosion of beaches are typically met with counter arguments that such structures merely enhance erosion in other locations. This is a now major issue in the Oregon Inlet area of the Outer Banks. Issues related to prevention of ocean and storm-related damage will continue to present themselves to residents, visitors and planners in upcoming years.

### 3.1.7 Social and Cultural Characteristics

Each of the study communities has a relatively long history of interaction with the coastal and marine environment. Adaptation to this often challenging environment has been an important factor in the lives of community residents whose families, and families before them, have earned a living by fishing the nearshore and offshore waters of the coast. As time has passed, however, the economies of communities such as Beaufort and Morehead City have become more diversified. The strong fishing traditions have begun to be affected by persons and families arriving from other parts of the nation with different cultural perspectives and backgrounds.

Most residents of Wanchese and Atlantic remain highly focused on exploitation of the area's living marine resources. The social and cultural characteristics of these communities are directly linked to this venture. Hatteras and Ocracoke also maintain the fishing orientation and traditions, although tourism has taken hold with more vigor than in Wanchese and Atlantic. In all of the communities, however, some families are organized around fishing as a way of life and fishing vessels may still be passed from father to son as may knowledge about fishery itself.

With respect to social interaction between long-time and newly-arriving residents in Wanchese, Atlantic and Hatteras, it is often difficult for newcomers to experience sustained interest or warmth. It is said that although long-time residents in these communities are friendly at first, it is not easy to endure an entire winter of residence if the newcomer desires any significant degree of social interaction with locals. To some degree, this also is the case, in Ocracoke. Ocracoke, however, and the other small fishing communities, to a lesser degree, exemplify a dichotomous social structure in which newcomers may stay on, to form social alliances with other newcomers, despite lack of attention by long-time residents.

Social life in Nags Head is dichotomized in a seasonal sense, as it is in Hatteras and Ocracoke, albeit to a lesser degree. The cold months bring many permanent residents together who may literally lose sight of their friends during the crowded summer months. The population there expands so dramatically in the summer and fall that locals may also find themselves retreating for solitude. As winter arrives, the population shrinks drastically and elicits, among many, a need for conversation and social interaction with other permanent residents. Of course, it should be noted that seasonal residents also interact in a social sense, and the summer may bring visitors together who have frequented the community on a seasonal basis for years. In other words, the busier months bring whole social groups together from disparate locations across the state and nation to form seasonal "social neighborhoods."

In Beaufort and Morehead City there is less seasonal variation in population and more overall variation and complexity in social structure. This situation is one consequence of the relatively larger size of the communities, the more diversified and stable economies of the communities, and their proximity to inland urban areas, which allows a variety of persons to visit the communities throughout the year. As is the case in Nags Head, however, there is some level of increased social intimacy among locals during the winter months and seasonal visitors in the warmer months.

#### **3.1.7.1 General Socioeconomic Background**

The communities of Wanchese and Atlantic depend heavily upon the fisheries for their livelihoods. Recently developing problems in the fisheries are creating doubt about the continued viability of the industry. The situation has broad implications for these communities and for sectors of the other study communities reliant upon a healthy fishing industry. Since the history, social structure and cultural milieu of the fishing communities and sectors are intrinsically related to the overall well-being of the individual communities, the demise or partial demise of the industry would have serious implications for the entire region.

The communities more oriented towards tourism have also experienced a downturn in their economic climate. Some business owners in the beach communities report, however, that the recession really has not hurt them relative to other communities in the nation, as in towns where military bases have closed. Informants explain in Dare County, which has continued to grow, albeit slowly, through the period of overall national economic decline, negative impacts have been minor. They say that while some businesses have "gone under," this situation has not been tragic for the overall business communities because when one enterprise fails, others absorb the business and prosper more than they might have otherwise.

#### **3.1.7.2 Aesthetic Values and Perceptions about the Environment**

Understanding prevalent environmental values requires an understanding of how the natural surroundings are used. Residents of Wanchese see the most common uses of the local environment as those related to commercial fishing, including crabbing and clamming. It is not surprising, therefore, that the construction of jetties, if it were to occur, is perceived to be the event most likely to change the community. Residents believe that jetty construction will stabilize Oregon Inlet and increase the capability of the local fleet to reach productive fishing grounds. Years of work on the ocean have given many Wanchese residents reverence for the forces of nature and respect for fishermen and others who have spent their lives on the water. Prowess in fishing and fortitude in the face of the powerful forces of nature contribute to a sense of community identity held by residents. Many residents also value family ties and see the community as one of hard-working fishermen and supporting families.



Residents perceive stricter fishing regulations having the potential to negatively affect the community. Hurricanes are also feared.

Among informants in Nags Head, surf fishing is believed to be the most common use of the environment, followed by sunbathing and surfing. These findings reflect the recreational atmosphere of this resort community and justify the belief that hurricanes have the greatest potential to change the community. This is logical since a major hurricane could indeed disrupt all recreation in the area. Overdevelopment is also considered to be a factor that could change the community. This agrees with findings that suggest citizens and government officials are working to mitigate the negative impacts of development and preserve the natural beauty of the area.

In Hatteras, commercial fishing and tourist activities such as visiting national parks are thought to be the most common uses of the environment. This mix of uses reflects the primary economic sectors in the community. As in Nags Head, hurricanes and overdevelopment are considered to have the greatest potential to change the community. Hatteras residents value the natural environment both for its peaceful beauty and for the power it holds. Fortitude is highly valued in this community. The ability to survive cold winters, rough weather, hurricanes, and many seasons on the island is highly respected. Commercial fishermen in Hatteras take pride in their stoicism and also feel they are contributing to society by bringing seafood to the public.

Despite the fact that the commercial fishery in Ocracoke is relatively small, informants in this community consider this to be one of the common uses of the environment. Similar to the other immediate coastal communities, recreational activities -- swimming and surf fishing -- were also considered to be common uses. Overdevelopment is seen as an important source of change here as well, as is relaxation of environmental regulations. Ocracoke residents are a mixed breed of long time residents and new arrivals, but both groups share values that prioritize a beautiful island environment.

In Atlantic, residents see commercial fishing as the most common use of natural surroundings. This supports observations indicating that life in the community revolves around commercial fishery. Perceptions about sources of change to the community are also linked to fishery. Residents cite farm runoff, sewage problems and red tide as most important. As is the case in Wanchese, the small town atmosphere and the existence of family ties are judged to be accurate descriptions of the community and important to the local population. Unlike residents of the communities where tourism is part of the economy, many residents of Atlantic value the natural environment more for what it offers in terms of subsistence or commercial products than for its natural beauty. This is also apparent among the commercial fishing sector in other communities where residents see themselves as being rightful heirs to the traditional harvest of living marine resources.

Boating and sunbathing are seen as common uses of the environment in Beaufort, as is commercial fishing. This mixture of uses reflects the fact that the environment is valued for

both recreational and commercial possibilities. It justifies the perception of residents that overdevelopment and poor management of natural resources have the greatest potential to change the community. The natural beauty of the area is highly valued by residents as is its proximity to the ocean and sound environments.

In Morehead City, offshore recreational fishing is seen as the most common use of the environment, followed by boating and commercial fishing. Hurricanes, relaxation of environmental regulations and overdevelopment are seen as the primary potential sources of change to the community. Residents of the area value their proximity to the ocean and sounds and the ability to live a water-related lifestyle.

In sum, residents of all the communities value the proximity of their homes to the ocean and sounds. The ability to live water-related lifestyles is also universally important. The commercial fishing sectors of all the communities share ideas about the worth of their work as harvesters of the ocean's natural resources but place less emphasis on the area's natural beauty. Clean water and air are valued among members of this group, but these appear to be valued more as indicators of the natural resources upon which their livelihoods rely. They also value the ability of their kind to withstand the forces of nature and they respect the power of the wind, tides, and waves. This is especially evident in the communities of Wanchese, Hatteras, and Atlantic. In communities where tourism is important, the natural beauty of the area is highly valued. Residents recognize the need to preserve the natural beauty of the area and insure that the environment can continue to be used for recreational purposes. Among possible sources of human-caused change to the communities, overdevelopment is seen as the most threatening. This is true of both tourism-oriented sectors and fishing sectors since both are subject to economic problems should the areas get too crowded and experience problems associated with excessive growth such as water pollution. Hurricanes are also seen as a universal threat -- all residents seem to recognize the power of nature to transform the social and physical landscape of the communities.

### 3.1.7.3 Social and Cultural Issues

A wide variety of locally important issues confront the seven study communities. Many affect the local economy or the pocketbooks of individual residents. Issues in the seven communities tend to change; some are resolved over time, while some resurface periodically.

In Nags Head and Hatteras, there are ongoing and increasingly cogent disputes between recreational anglers and commercial fish harvesters. The beach haul-net issue has pitted the visiting recreational surf fisherman against the resident commercial harvester. This fishing strategy involves setting a net some distance offshore then hauling the net back onto the beach. Recreational anglers feel that the commercial fish harvester takes too big of a haul (at the expense of the angler) and wastes too many non-commercially viable fish. They have begun a campaign to outlaw use of such nets close to the shoreline. The commercial fishers argue that their practice is traditional and that the angler has no right to change an age-old

and effective method of fishing. The perception that the problem has to have a solution suitable to one side or the other has led to extreme emotional reactions on both sides.

A major issue in Wanchese which affects a number of residents involved in commercial fishing is the stabilization of Oregon Inlet. Many see their livelihoods threatened by the shoaling inlet since fishing vessels have a tough time navigating these dangerous waters. Residents have argued for stabilization for many years and feel that jetties placed on both sides of the passage would be effective. Some scientists are ardently opposed to the placement of hard structures in the surf zone, claiming that they would increase erosion down current, i.e., on Hatteras Island. These assertions have been grasped by many citizens, especially those with interests (such as homeowners) in preventing erosion downstream. Federal approval and funding for the project have been slow to arrive. At present, Wanchese residents wait for jetties that may never be built.

In Nags Head, residents and planners are struggling to handle the impacts of phenomenal growth in the 1980's, while retaining the identity of the community as an attractive beach resort. Residents are determined to avoid having the town become "another Virginia Beach," yet development pressures are strong in the community and there is still land available for further development.

Further south, Hatteras Island's main problem is water availability. Water supplies, if not properly managed, could eventually constrain population growth in the area. This issue is actually an island-wide concern, since the available water supply is located within an aquifer under Buxton Woods, a maritime forest in Buxton. The local water association distributes water to the surrounding municipalities and hopes to increase its production capacity by tapping into the aquifer in other parts of the forest. Part of the forest is privately-owned and an environmental preservation group has been formed to encourage landowners to resist development. The group is seen as extremist by many residents but since some of the members are respected long-time residents, outward friction is mitigated.

On Ocracoke Island, residents are concerned about increasing development and its impact on the fragile natural resources of the island, particularly water quality, which has deteriorated substantially over the last decade. Lack of strict zoning or subdivision ordinances has resulted in inconsistent land use, with commercial areas adjacent to residential areas sometimes threatening the "fishing-village charm" of the community. The lack of a central sewage treatment system and a rapidly growing seasonal population have overburdened existing septic systems, causing some groundwater contamination.

In the Downeast community of Atlantic, a sewage disposal plan was perceived as a substantial threat. The recent plan to pipe treated sewage from Atlantic Beach to nearby Open Ground Farms upset local residents, who felt county planners were favoring the wealthier beach towns over their rural fishing community. The treated sewage was to be used as fertilizer, but residents of surrounding communities feared runoff could contaminate the surrounding estuaries and fishery nursing areas. The issue remains unresolved. This is

an important issue to residents of Beaufort since commercial fishermen here also fear contamination.

An important issue in Morehead City is related to the diminishing number of available jobs. Informants perceive a need for manufacturing and other blue collar positions to mitigate a faltering local economy.

### **3.1.8 Social and Cultural Linkages Between Study Communities**

Although the seven study communities are situated in similar physical environments along the coastal zone, they can be thought of as existing in two distinct geographic zones -- north and south. Wanchese, Nags Head, Hatteras and, to a lesser extent, Ocracoke articulate in a social sense within the northern zone, largely because the existing road system makes it possible to travel between these areas with relative ease. Wanchese and Hatteras are linked in that Hatteras fishermen sometimes sell their catch to fish dealers in Wanchese, since better prices are occasionally available there. Some linkage also exists between Hatteras, other Hatteras Island communities and Nags Head, since Nags Head is a base for a variety of amenities not available on the island. Hatteras residents are linked to Ocracoke residents through employment in the ferry system. The distance between Ocracoke and Atlantic, Beaufort and Morehead City discourages social interaction. The Downeast communities are socially linked, however. Atlantic residents frequently travel to Beaufort and Morehead City to acquire goods and services not available in town. Beaufort is linked to all Downeast communities since it is the county seat and the center of government. Beaufort and Morehead City are closely related by virtue of their close proximity.

Despite the fact that Wanchese and Nags Head are close in a physical sense, the social and cultural climates in these communities are quite different. Wanchese is almost exclusively tied to commercial fishing as a way of life and the economy of that community reflects trends in the fisheries. Such factors as resource availability, competition between commercial and recreational factions, and a changing regulatory structure are the primary sources of change to this small town. Residents perceive their town to have a relatively closed social system. That is, they differentiate between "outsiders" and long term residents. This is unlike nearby Nags Head where, in summer at least, it is difficult to contact anyone who has lived in the community for all of their life or anyone who values long-term residence. Unlike Wanchese, permanent residents of Nags Head experience dramatic population change seasonally as tourists come to visit the community's beaches, restaurants, and other attractions. Fishing is experienced in a recreational rather than commercial sense and is just one of many attractions for living in the area. The principle agent of change for Nags Head is the fact that the area is perceived as a fun place to visit and live, and this situation means that Nags Head will. Seasonal variation is the norm for this community and is generally accepted by permanent residents who welcome the revenue generated by tourism.

Hatteras Village combines the kind of fishing lifestyle attributable to Wanchese with the tourist-oriented economy notable in Nags Head. Like Nags Head, Hatteras is a popular vacation spot for persons from distant locations. Thus, there is a vast difference between seasons in this community as the local fishing population winters and works in a relatively deserted town, while employees in the summer tourist industry may find themselves unemployed with time on their hands.

Ocracoke is similar to Hatteras. It has a long history as a fishing village, but is developing increasingly important links to tourism. The island is an attractive spot for seasonal vacationers and the permanent population is comprised of long-time residents and newcomers. Families who trace their ancestry to early island settlers may consider all others as newcomers, no matter how long they have resided on the island. This is one indicator of a social system with restricted access.

Atlantic is relatively isolated both in geographic and social terms. Yet, while Ocracoke's coastal seclusion is an attractive quality that brings visitors, Atlantic is inland, and increased tourism to the area is unlikely in the near future. Fishing is the economic mainstay of this community and, like Wanchese, change is most directly linked to changes in the fisheries. As noted above, there is no observable social or infrastructural linkage between Atlantic and Wanchese or other communities in the northern part of the region. Atlantic is tied to communities farther south and west.

Beaufort and Morehead City are closely related both geographically and socially. The communities are situated adjacent to the Atlantic Ocean and the beach towns situated on the narrow barrier islands of Bogue Banks. This serves to increase the number of beach-loving visitors that travel to the area during the warm months. Area history also brings visitors. The communities have larger permanent populations than the other study communities and the more urbanized nature of the area speaks to the variety of local job opportunities. Despite the importance of tourism, both of these towns have diversified economies. Much economic activity is based on the proximity of the communities to the ocean since import and export of products is facilitated by the presence of Beaufort Inlet.

## **3.2 WANCHESE**

### **3.2.1 Introduction: Wanchese and the Case Study Communities**

Wanchese is included as a case study community, since its economy and sociocultural history are so closely related to commercial fishing in the inshore, nearshore and offshore waters of coastal North Carolina. This small fishing village is located on the southern end of Roanoke Island just southwest of Nags Head in Dare County.

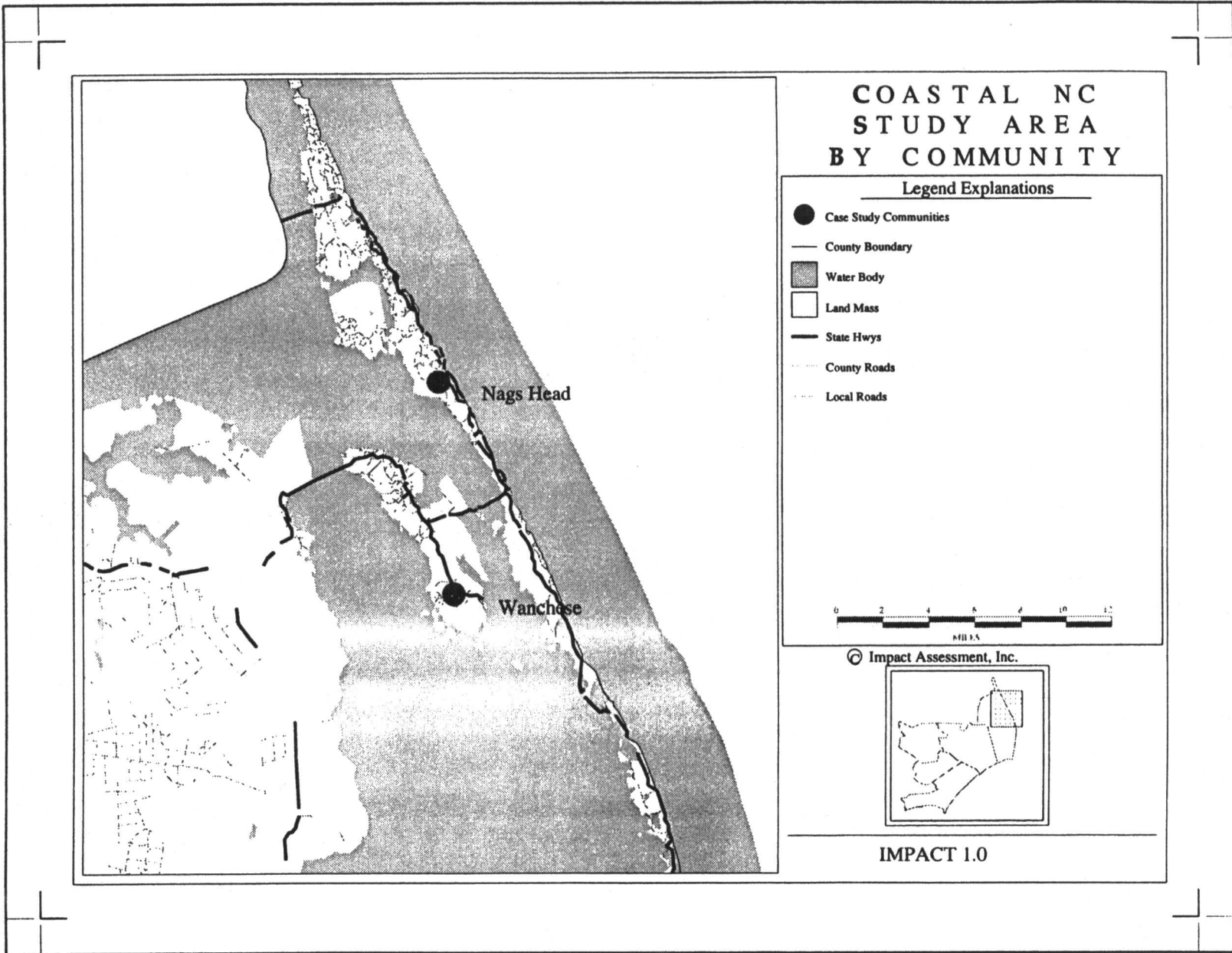
Wanchese harbor is full of trawlers and other fishing vessels. More than twenty million pounds of fish are landed here annually. The catch is either sold for immediate consumption locally or iced, boxed and shipped via trucks and planes to markets as distant as New York and Japan. Wanchese fishermen have been described as "small, independent operators who generally own their own boats and gear and spend long, hard hours on the water" (Schoenbaum 1982:39). A few of the fishing operations in Wanchese, however, are quite large and have expanded to other ports in the United States.

### **3.2.2 Physical and Biological Environmental Overview**

Wanchese is located on the southern end of Roanoke Island bordered by Roanoke Sound to the east, Pamlico Sound to the south and Croatan Sound to the west. The Atlantic Ocean lies east of the community, roughly four miles distant across the Croatan Sound and Bodie Island.

Roanoke Island includes some 10,930 acres or seventeen square miles and it is surrounded by estuarine waters. According to the 1987 Dare County Land Use Plan, the "high degree of variability in soil types, combined with a generally high [but] seasonally fluctuating water table . . ." makes development difficult in some areas. The county is divided into four categories based on soil septic tank suitability. These categories are suitable, marginal, unsuitable and questionable. Only some 2,500 acres considered suitable for development (Stone and Associates 1991:24,26).

While the east side of the island is dominated by marsh, only a few small areas of marsh dot the northern landscape. The west side of the island is dominated by residential and commercial development, and artificial forms of stabilization. Little maritime forest remains although some is found within the Fort Raleigh site on the northern end of the island (National Park Service 1992; personal communication).



The shallow upper aquifer that provides Dare County with its water is located underneath Roanoke Island at depths ranging from fifty feet to one hundred feet. Another aquifer is situated under the island at a minimum of 110 feet deep. The soils on the island range from loamy sand surfaces with sandy clay loamy subsoils to silty clay loam surfaces (Stone and Associates 1991:24).

Roanoke Island is mostly wetlands. The *Juncus roemerianus* or needle rush regime comprises a majority of the wetland habitat on the island. The broadest expanse of needle rush is on the east side of the island. A 500-acre parcel of this marshland was sold to the Nature Conservancy by a private landowner this past year. Other plant communities on the island include the following: *Setaria glauca* or Foxtail grass; *Cyperus erythrorhizos* or Umbrella sedge; *Andropogon virginicus* or Broom straw; *Scirpus americanus* or bulrush; and *Spartina patens* or Salt meadow hay. Common tree types include: *Juniperus virginiana* or Red cedar; *Diospyros virginiana* or Persimmon; *Myrica cerifera* or Wax myrtle; *Iva frutescens* or Marsh elder; and *Ilex vomitoria* or Yaupon (Phelps 1984:11).

The threatened or endangered Peregrine falcon and Bald eagle occasionally visit the island. Ospreys and Pelicans inhabit the island, but are no longer on the state or federal endangered or threatened species list.

The 1987 Dare County Land Use Plan uses CAMA's seven land classification categories: municipal; transition; community; community-residential; rural; conservation; and limited conservation. Land in Wanchese is classified as either conservation or transition. According to Stone and Associates 1988:6, "the purpose of the Conservation class is to provide for effective, long-term management of significant limited or irreplaceable areas. . . management may be needed because of its natural, cultural, recreational, productive or scenic values. . . by definition, all Areas of Environmental Concern (AECs) are included in this class." The extensive wetland areas and AECs around Wanchese limit the amount and kind of development that can occur in the area. The purpose of the Transition class is to "provide for future urban development within the ensuing ten years on lands that are most suitable and that will be scheduled for provision of necessary public utilities and services" (Stone and Associates 1988:5). Most of Wanchese is classified as Transition area. This area was also classified Transition in the 1982 Dare County Land Use Plan.

Natural and man-made changes continue to influence the natural resources and beauty of the island. The north end of the island continues to erode, while marsh on the south end continues to expand into the sound. Refrigerators, cars, boats and other debris have been collecting in the sound at the south end of the island. While some areas have not been developed, most of the land is already inhabited or privately owned. One area that is not developed is a 370 acre parcel of land on the north end of the island.



### 3.2.3 Community Chronology

Roanoke Island is the site of the nation's first colony. Although unsuccessful, this was an important milestone in the early history of the nation. The colony was abandoned and its story is now enacted by a theater company, an important attraction for tourists.

The area that is now Wanchese was probably settled by European colonists in the late 17th century (Phelps 1984:1). Many contemporary residents in this community are descendants of colonists who owned land on Roanoke Island before the American Revolution. According to a key informant who has researched the history of Wanchese, a William Daniel came to Roanoke Island around 1742 and fathered numerous sons and daughters. One of his sons was named Belcher Daniel, probably after Governor Belcher Noyes of Massachusetts. Governor Noyes owned one-half of Roanoke Island in the mid-18th century and used the services of a caretaker. This was probably William Daniel.

When Dare County was created in 1870, Roanoke island had no towns but contained two major settlements, one on each end of the island (Stick 1958). The county seat was located in the middle of Roanoke between these two settlements. In 1886, a post office was established in the southern settlement, and the name Wanchese --the name of one of the two Native Americans that accompanied Amadas and Barlow during their return to England in 1584 -- was adopted. Early settlers raised crops and livestock to supplement fishing (Phelps 1983).

Commercial fishing grew economically during the nineteenth century. In these years most residents of Wanchese were commercial fishermen and most of the fishing boats were owned or financed by the first postmaster, Ezekiel Daniels. Daniels also bought most of the catch and provided groceries and supplies from his store on credit. Many fisherman would use this line of credit and repay it when they had a good catch. Thus "it is a legend that many a Wancheser was born, reared, worked and died with a full and prosperous career without ever having more than a few cents in his possession" (Stick 1958).

The building of bridges in Dare County, the paving of roads, the increased use of telephones and the consolidation of county schools all played a part in weakening the barriers between the isolated villages in Dare County. Changes in regional infrastructure and communications also linked Wanchese with other areas of North Carolina and the United States. Before telephones were in wide use and before a road on Hatteras Island was built, the only way to get a message from Wanchese to someone on the Outer Banks was through the Coast Guard stations, located on the beaches at seven-mile intervals.

As in the rest of the rural U.S., telephones and televisions had major effects on the lives of Wanchese residents. Before their arrival, visiting neighbors was not only a recreational past-time but a socially important one as well. According to an informant who was a child in the

1920's and 1930's, there were no cars and little money in Wanchese during this period and residents entertained and supported each other by visiting.

The creation of Cape Hatteras National Seashore and the increase in regional tourism affected the social history of Wanchese. Older Wanchese informants speak of a time when the men set up fish camps near Oregon Inlet for ocean fishing in the fall and spring. Families joined them at the camps on weekends. According to some older informants, when the National Park Service took over the beaches in this area, they told the locals that they would be able to continue to operate the fish camps. This policy changed, however, and eventually these fishing camps and the social activities that occurred in them were prohibited.

Tourism in the region has affected commercial fishing in recent years. Much tourism is centered around recreational fishing which has led to an increase in competition for limited resources. Issues related to conflict between commercial and recreational fishermen are much debated in Dare County.

### 3.2.4 Demographic Characteristics

#### 3.2.4.1 Population History

Population figures for Wanchese are difficult to document since the U.S. Census includes, within its count, the town of Nags Head and the rest of Roanoke Island. Table 3.2-1 depicts total population of Wanchese from available sources.

Table 3.2-1 TOTAL POPULATION: WANCHESE	
Year	Population
1950	625*
1980	1,105
1990	1,380

Source: U.S. Bureau of the Census  
\*Dunbar 1958:104.

### 3.2.4.2 Recent and Current Population Characteristics

**Total Population** The total population of Wanchese was 1,105 in 1980 and 1,380 in 1990. The 1990 figure represents six percent of the total Dare County population.

**Age/Gender Distribution** Of the total population in Wanchese in 1990, 50.4% were male and 49.6% were female. Thirty percent of the total population in Wanchese during this census count were under the age of eighteen. Individuals sixty-five and over comprised roughly twelve percent of the population.

**Ethnicity** Wanchese is ethnically homogeneous. According to the 1990 census, 1,366 of residents were Caucasian, one was African-American, four were Native American, five were Asian or Pacific Islanders, and fifteen were of Hispanic origin of any race.

**Household Characteristics** According to the 1990 Census, Wanchese had 513 households in that year. Out of this total, 371 were family households and 142 were non-family households. (see Table 3.2-2).

<b>Table 3.2-2 HOUSEHOLD INFORMATION: WANCHESE</b>			
<b>Census Category</b>	<b>1980</b>	<b>1990</b>	<b>% change</b>
Total Number of Households	394	513	30.2
Average Number of Persons per Household	2.80	2.69	-3.9
Percent of Married-couple Families	67.0	60.4	-9.8
Percent of Male Householder Families	1.5	2.5	66.7
Percent of Female Householder Families	8.1	9.4	16.0
Percent of Non-family Households	23.3	27.7	18.9
Percent of Householders Sixty-five or Older	20.0	9.4	-53.0
<b>Source: U.S. Bureau of the Census</b>			

**Housing Information** Table 3.2-3 depicts housing information for Wanchese for the 1980 and 1990 census years.

**Table 3.2-3  
HOUSING INFORMATION 1980, 1990: WANCHESE**

Type of Unit	Number of Units			Median Value/Rent (\$)		
	1980	1990	% change	1980	1990	% change
Total housing units	460	583	26.7	--	--	--
Owner-occupied units	235	384	63.4	35,800	75,200	
Renter-occupied units/vacancy rate	59/3.2	129/3.1	118.6/-3.1	129	326	
Mobile homes	86	219	154.6	--	--	--
Vacant housing units	7	70	900	--	--	--
Units vacant for seasonal use	1	10	900	--	--	--

Source: U.S. Bureau of the Census

### 3.2.4.3 Seasonal Variation in Population

In sharp contrast to other area communities, Wanchese has a stable population throughout the year. Unlike Nags Head and other nearby tourist communities, the economy of Wanchese is based almost entirely on commercial fishing. Thus, while the immediate coastal communities experience dramatic population increase during the summer season, the population in Wanchese fluctuates very little over the course of the year.

### 3.2.4.4 Local Population Issues

The population of Wanchese has grown little since 1980. Since 1950, however, this population has more than doubled. According to key informants, the two primary reasons for moving to Wanchese are retirement and commercial fishing. Land has remained cheaper in Wanchese than in other parts of Roanoke Island or on the Outer Banks and this attracted some people to the town. However, most people who have moved to Wanchese since 1980 had pre-existing connections to the community through family ties or commercial fishing.

### 3.2.5 Economic Characteristics

#### 3.2.5.1 Economic History

The close proximity of Wanchese to highly productive estuarine and offshore fishing grounds underlies the long history of the community as a regional commercial fishing center. The continued success of the fisheries is perceived to depend on the ability of large vessels to negotiate Oregon Inlet, the nearest point of entry to the Atlantic.

Prior to the 1960's, most local fishermen used relatively small vessels and could negotiate Oregon Inlet without difficulty. The first big scallop boats (in the seventy-foot range) were bought by Wanchese fishermen in the mid-1960's. Because these have a deep draft, they often encounter difficulty with the passage, since it constantly changes under the forces of storms, daily tides, and currents.

Many large vessel owners were encouraged when a state harbor (now the Wanchese Seafood Industrial Park or WSIP) was proposed for Wanchese in 1970, since they believed that the inlet would be stabilized concurrently. This belief and a 1970's nationwide boom in the fishing industry, led many fishermen to invest in large boats and more activity in the fishery in general. Stabilization of the inlet has yet to occur and the future health of the local economy -- rooted in the negotiability of the inlet -- is uncertain.

Generally speaking, the nation's Atlantic Ocean fishing industry is experiencing difficult times. Competition for limited resources is increasing both within the commercial sector and between it and recreational users. Management strategies, such as harvest limits, are being implemented to conserve the resource. Natural variation in resource availability may also impact the industry. According to many local fishermen, harvests have not been very good in the last three years. Fishermen also complain that low market prices do not help the situation, and while the fish dealers profit, the average fisherman is struggling.

#### 3.2.5.2 Local Business/Industry

At least 117 small businesses are based in Wanchese. Forty-four are commercial or charter fishing enterprises. Other businesses include seafood packing companies, construction businesses, leasing companies, auto and boat repair, barber shops, banks, and restaurants.

**Commercial Fishing** Commercial fishing is the principal industry in Wanchese. It is a regional center for small and large commercial fishing and processing operations. According to the North Carolina Division of Marine Fisheries (DMF) 219 fishing licenses were issued in the study community in 1991. The status of Wanchese as a viable commercial fishing center is directly linked to the adequacy of Oregon Inlet as a passage to the Atlantic and the potential stabilization of the inlet is a central issue for fishermen operating in the area.

The importance of Oregon Inlet to the region is underscored by the amount of commercial seafood that is harvested offshore and transported through the passage (see Table 3.2-4). These statistics describe landings reported from all sources that use Oregon Inlet. Thus, the efforts of Wanchese fishermen, are totalled with those of fishermen based elsewhere.

Table 3.2-4 OREGON INLET COMMERCIAL LANDINGS AND VALUE 1972-1991		
Year	Landings (pounds)	Value(\$)
1972	3,977,549	786,253
1982	18,307,613	9,876,119
1990	12,442,027	10,045,664
1991	10,969,894	7,575,483
Average	18,707,671	8,944,818
Source: Division of Marine Fisheries, State of North Carolina		

The commercial fishermen in Wanchese belong to one of three groups: small-scale fishermen, ocean gill netters and the larger trawl fishermen or draggers. The small fishermen concentrate most of their efforts in the sound waters although some with larger boats may fish in the ocean within ten miles of the beach. The ocean gill netters fish up to ten miles offshore and fish the area from Ocracoke to Currituck Light. These fishermen fish for grey trout, bluefish, dogfish, and Atlantic croakers between the first of November to the end of April. The trawlers fish from the shore to 100 fathoms offshore. These fishermen do not fish much further south than Ocracoke but may go as far north as Cape May, New Jersey. Trawler season starts the first of November and goes until April. Trawlers will fish for fluke, sea bass, porgies, bluefish, grey trout and dogfish. Most trawlers reportedly work within the 100-fathom range.

Most ocean fishing occurs during the winter months. According to one fish house employee, fish houses stay busy in the summer only if the sound fishing is good. He also stated the summer of '93 was bad, but the last few years have been good for sound fishing. Most of the boats in the sound fishery are small one-man operations with boats less than twenty feet. These fishermen fish for speckled trout, puppy drum and fluke from the first of April to the first of November. Haul netting operations also occur in the Sound; a four-man crew will pull a seine to catch the fish. Seine fishermen fish the sounds from Manns Harbor bridge to Engelhard and as far south as Ocracoke. Some years, up to ten shrimp boats between thirty and eighty feet fish the sounds, but in 1993, there were only two or three.

The average fisherman in Wanchese is flexible and opportunistic. Many gill net in the winter and haul net in the summer. Some may fish for tuna or shark between the first of May and the end of October. Activities depend on the knowledge of the fisherman, whether he has the gear to get into a specific fishery, and current market prices.

***Marine-related Business/Industry*** The harbor at Wanchese is a base for large locally-owned trawling operations that work in coastal waters as far away as New England (U.S. Army Corps of Engineers 1977; Stick 1970). It is not only a harbor for Wanchese fishermen but for fishermen from inland communities also. For example, a few fishermen from Belhaven fish out of Wanchese. Wanchese is also the site of the government-funded Wanchese Seafood Industrial Park (WSIP). The park is currently the base of operations for seven seafood-related businesses (see subsection 3.2.7).

Marine-related businesses based in Wanchese are a vital part of the local economy. These include: four boat works, one engine sales and service, five vessel sales and service, eight seafood processing and sales, one welding service, one vessel maintenance, one offshore charter, two marine supply and one marina.

Among the most important businesses is Wanchese Fish Company, Inc. The operation includes a fish-packing house in Hatteras, a packing and processing house in Wanchese, a packing and processing operation in Virginia, a processing and freezing operation in Virginia, a packing and processing operation in New Bedford, Massachusetts, two scallop boats in Alaska (scallops are loaded in trucks and transported here for distribution), and fourteen other boats including trawlers, scallop boats and small boats for gill netting. This business both catches its own seafood and purchases it from other vessels. Air freight is used to transport the product to distant markets in the United States and to Japan. The company owns seventy-eight trucks used to distribute the seafood regionally and nationally.

Etheridge Seafood Company, Inc. is also an important local business. While the company is not a major employer, it is a major distributor of seafood. In 1991 Etheridge purchased catch from 150 commercial boats and sold \$7.5 million of seafood. It purchases from twenty-five boats on a regular basis and also operates one boat of its own. It has one packing and processing facility. Ninety percent of its business is the sale of whole fish to wholesalers. Ten percent of the product is frozen. Etheridge sells to ten wholesalers in New York City and they in turn sell the fish to the retail market.

Moon Tillet Fish Company, Inc. is a locally owned fish house that owns two boats and primarily packs fish from its own vessels. This company has an agreement with Wanchese Fish Company for the transportation of the seafood product to market. Tillet is primarily involved in shrimping during the summer months and, once the weather turns colder, pursue other species such as croaker, trout and bluefish.

Fisherman's Seafood is a locally owned fish house that packs fish for six to eight trawlers. It owns additional facilities in Hampton, Virginia and New Bedford, Massachusetts, and two

or three of its contributing trawlers. Jaws Seafood is a small, locally owned fish house that packs one trawler and some gill netters but owns no boats. This company uses Etheridge Seafood for selling and distribution.

The Scarborough Boat Building operation builds two to three sport fishing boats per year. The owners report that business has been steady but the outlook for the boat building industry is not favorable. Recreational boats have flooded the market in an unfavorable economic climate for sales.

***Tourism Services*** The only tourism services in Wanchese are charter boat operations and retail craft shops. Charter boats operated from Wanchese depart the Oregon Inlet Fishing Center.

***Food Services*** Unlike nearby Manteo and Nags Head, Wanchese has only one grocery store and three restaurants. The restaurants seat 216 persons combined and are popular gathering places for commercial fishermen and families. Some of the seafood processing businesses operate seafood markets during the summer.

***Lodging*** Wanchese has one bed and breakfast with four units. There are no hotels or motels in town.

***Medical Services*** There are no medical or health facilities based in Wanchese. Although Dare County does not have a hospital, it has assumed responsibility for emergency medical services. Trauma and other severe emergency cases are flown by helicopter or transported by ambulance to Albemarle Hospital in Elizabeth City, North Carolina or Norfolk or Chesapeake, Virginia. Wanchese residents are typically served by the Outer Banks Medical Center in Nags Head for more routine medical care. This facility operates twenty-four hours a day and is affiliated with Chesapeake General Hospital in Chesapeake, Virginia.

Wanchese residents also have access to the Regional Medical Center in Kitty Hawk, which is affiliated with Albemarle Hospital, and a medical office in Southern Shores which is affiliated with Chesapeake General Hospital. Other medical services are also available to residents. These include a medical center in Hatteras and two private practices on Roanoke Island. Many residents use family practice and specialist doctors in Elizabeth City.

There are alternative health care systems within Wanchese in the form of religious healing and home remedies. These alternative therapies are generally used in conjunction with mainstream health care.

***Construction*** There are two general construction firms, a well drilling firm, two roofing companies and a welding firm in Wanchese.



***Other Industries/enterprises*** A number of small retail and trade business are based in Wanchese, including an automotive repair shop, an auto salvage shop, a barber shop, a computerized bookkeeping service, two lawn mower repair shops, a machine repair and service shop, a bank, two fuel supply companies, a florist, a cabinet shop, a lawn and garden center, and a sign company.

### 3.2.5.3 Local Employment

***Public Sector Sources of Employment*** Wanchese residents often desire employment with government agencies since the work is steady, pays more than most jobs in the area and offers benefits. Forty-one county employees have addresses in Wanchese. The National Park Service employs four Wanchese residents and the post office employs one. Dare County public schools employ a total of 450 persons. Of these, fifty-six (12.4%) live in Wanchese.

***Private Sector Sources of Employment*** Fishing is the principal source of employment in Wanchese. Many residents are self-employed in the industry.

According to 1990 U.S. Bureau of Census figures, there are 984 people in Wanchese who are age sixteen or older. Of these, 78.6 percent or 773 persons are in the labor force including 71.5 percent or 362 of the women. Currently, more women in Wanchese work outside of the home than in the past. The tourist businesses in the beach communities provide a source of employment for women in Wanchese as do county government agencies and schools.

As of December 1992, Wanchese Fish House employed 198 active and inactive employees. Inactive employees are on-call for employment during good fishing months. Fifty-eight employees have Wanchese addresses. Scarborough Boat Building employs ten to twelve people. It is reportedly difficult for fish houses to hire Wanchese residents since locals can often earn more money operating their own vessels than they can working for the fish house. Other locals would rather work for the county and accrue benefits not otherwise available.

### 3.2.5.4 Seasonal Variation in Local Economy

Wanchese does not experience the same kind of seasonal variation as do the tourism-dependent beach communities in Dare County, although the local economy fluctuates somewhat in relation to the seasonal availability of marine resources. Many of the fishermen and dealers in town stress fishermen's flexibility; if there are no croaker available, fishermen will fish for trout or whatever is available. Still, fall and winter are the busiest times at the fish houses. During this time of year fish houses pack flounder, king mackerel, bluefish and dogfish. The summer is busy but not as busy as the winter. In the summer, shrimp, grouper, tuna, bass and tilefish are typically processed.

Tourism indirectly affects the economy of Wanchese. There are more job opportunities during the summer not only for students but also for women and men who do not have full-time jobs. The two restaurants and the craft shops also do a greater volume of business during the peak tourist season, and fresh fish sales at the fish houses increase.

Many informants have made the statement that once the tourist season starts they do not leave the community of Wanchese if they can help it. They become frustrated with the increase in traffic and crowds on the beach. Many of the residents, however, take extra jobs during the summer working at restaurants on the beach, cleaning cottages, or working in retail sales. In this sense, summer can be one the busiest times of the year.

#### **3.2.5.5 Local Economic Issues**

Key informants in Wanchese note that the past three years have not been particularly good for commercial fishing. According to DMF (personal communication 1992), commercial landings and associated values are declining in Wanchese. The number of large vessels operating in the area is also shrinking. Major stocks such as summer flounder, weakfish, scup, and black sea bass are currently overfished but are expected to recover in the late 1990's and beyond. There also is the possibility of new fisheries such as menhaden, squid and Atlantic mackerel. Several fisheries (e.g., summer flounder and other finfish trawling), may ultimately be managed using a limited entry plan to reduce overfishing. New licensing laws will likely change the fishing industry by encouraging fishermen to target certain species and sizes while limiting by-catch.

#### **3.2.6 Locally Active Governmental Institutions and Services**

##### **3.2.6.1 Government History**

Wanchese was instituted in 1886. The town is unincorporated and benefits from county government and services. However, residents have resisted some county, state and federal government intrusions. For instance, Wanchese has resisted instituting zoning, fearing restricted use of real property. Some residents also dislike Coastal Area Management Act (CAMA) regulations since they may restrict construction. Fishing regulations are also often a subject of discontent.

##### **3.2.6.2 Federal Government**

Wanchese is served by the Wanchese branch of the U.S. Post Office; there is no home mail. The post office functions as both mail distribution center and as a social meeting place. Wanchese Post Office maintains 780 mail boxes, 640 to 650 of which were rented in late 1992.

The United States Coast Guard is based at the entrance of Oregon Inlet and provides a vital service to area waters, including Wanchese. Thirty people were assigned to the station for the summer of 1993. The Coast Guard maintains channels, provides rescue assistance and services to municipalities, answers distress signals, provides marine environmental protection, law enforcement and drug interdiction, and assists local municipalities during natural disasters.

A Coast Guard official mentioned that the general isolation of the Outer Banks area gives the Coast Guard a greater responsibility and that the communities come to rely on the service more heavily than elsewhere. The Coast Guard reportedly has a good working relationship with the commercial and recreational fishermen, boaters, and tourists in the area (United States Coast Guard 1992; personal communication). The number of search and rescue calls over the past three years has declined from 180 in 1990, to 167 in 1991, and 150 in 1992. There was an increase in the number of calls in 1993.

The Coast Guard Station is not an important source of employment for local residents. If one enters the Coast Guard and there is an opening at the Oregon Inlet Station it is possible to get assigned there. Currently, only one officer at the station is from the immediate area (Manteo). Coast Guard staff do, however, typically lease or rent homes in nearby communities such as Wanchese.

### 3.2.6.3 State Government

Because the importance of the commercial fishing industry, the Division of Marine Fisheries (DMF) may be the most important government agency active in Wanchese. The stated goal of DMF is to assist in enhancing and perpetuating the commercial fishing industry in North Carolina. The DMF maintains a satellite office in Manteo at the Roanoke Island Aquarium to address the area south of Currituck Sound to Ocracoke and west to Stumpy Point.

DMF reportedly has a good relationship with the commercial fishermen of Wanchese, although this varies somewhat by informant. Those in the division who work closely with commercial fishermen respect them as workers in a difficult field. Fishermen generally get along with DMF staff though there are occasional disputes over the validity of DMF data and issues such as turtle excluder devices or TEDs, flounder tailbag regulations, weakfish regulations, striped bass management, sound shrimping, and scrap fishing in ocean and sound waters.

One important problem DMF addresses is termed "Growth Overfishing," that is, when the over-harvesting of stocks leads to reduction in the size of the fish caught over time. Mesh size regulations allow more fish to escape to maintain harvests and stock size. DMF is also conducting studies to make TEDs a less contentious issue. TEDs would ideally exclude only turtles. Tailbag regulations are in place to release small flounder and DMF is supporting the Atlantic Marine Fisheries Management Council to develop a quota for flounder on the East

Coast. The division is also considering net mesh selectivity for flounder. DMF implements a size limit and a mesh regulation for weakfish. Studies are underway to seek ways to improve gear in this fishery also. Striped bass is an interstate management council issue. The division has management regulations on sizes, seasons, bag limits, closures and net regulations.

In sum, DMF studies fisheries management issues and issues and implements regulatory policy. DMF often works closely with commercial fishermen in deciding the mesh size used in various fishing nets.

#### 3.2.6.4 County Government

Dare County provides numerous services to the community of Wanchese; some of the most important services are described below. The County Board of Commissioners is the principal decision-making body for the town of Wanchese. There are no county agencies based in Wanchese; most are in nearby Manteo.

There are four voting districts in Dare County. District One includes East Lake, Stumpy Point, Manns Harbor, Manteo and Wanchese precincts. There are currently two commissioners from District One. Wanchese residents can communicate their needs to the District commissioner either by calling a commissioner directly or by being put on the agenda at a county board meeting. According to one Wanchese resident, there are reputational leaders in Wanchese who have close relationships with certain members of the Dare County Board of Commissioners. If a person has an issue he or she would like to bring to the attention of the Board, that person can either approach the Board members directly or speak to one of these reputational leaders and they will convey the issue to the Board member.

***Law Enforcement*** The County Sheriff's Department responds to calls from the Wanchese area as it does for all areas of Dare County. Wanchese is in B district which includes all of Roanoke Island and the mainland areas of the county. One patrol and eleven deputies are assigned to this district. The most common traffic violation is speeding and the most frequent arrests are for controlled substances and assault. Another function of the sheriff's department is the serving of court ordered papers. The Sheriff's office also responds to mutual aid calls from town police departments and from Emergency Medical Services.

***Fire Prevention and Suppression*** The Manteo Fire Department was organized in 1933 to provide fire suppression services to all of Roanoke Island. A side station was established in Wanchese in 1973. Dare County funds these departments, now jointly called the Roanoke Fire Department, by levying a fire tax. The department moved to a new building in 1990. The new structure includes living quarters in the event the department starts employing fire fighting personnel. There is currently one paid employee who is responsible for maintaining

the station. The department covers all of Roanoke Island and responds to mutual aid calls from other departments when needed.

The Wanchese and Manteo stations share equipment as needed. This equipment includes: one boat, four pumpers, one 100' ladder truck, two utility/equipment vans, one mobile air unit which carries an air compressor (and is the only one in the county), one REEL truck which carries a five inch above-ground supply line, and one tanker that holds 3000 gallons of water. The REEL truck is new and important. Wanchese has no fire hydrants since they are not users of the county water system.

In-house training is provided by each volunteer fire department. The most common situations to which the Roanoke Fire Department responded between January 1992 and December 1992 were hazardous conditions, false unintentional calls, false malfunction calls and structure fires. There were ninety-one incidents during this time period. Eleven were from Wanchese; three were trees, brush or grass fires; one was an over-pressure rupture at Mill Landing Marine Maintenance; one was a false malfunction call from Wanchese Seafood Industrial Park; three were hazardous conditions on Highway 345; one from Wanchese Fish Company; and two were refuse fires (North Carolina State Fire Commission List of Incidents 1992).

***Emergency Medical Services*** Emergency medical services are provided by Dare County Emergency Medical Services. This includes both ambulance and helicopter services which provide transport to Dare County medical offices, Britthaven Nursing Home in Nags Head, and area hospitals. The Dare County EMS responds to medical emergencies and also participates in search and rescue operations. Fifty percent of the total ambulance runs in 1992 were for local residents.

***Public Works*** Dare County Public Works Department serves Wanchese. The Department provides routine maintenance and emergency response to county-owned facilities and infrastructure in Wanchese.

***Education*** Wanchese students attending public schools go to Dare County schools in Manteo. These include Manteo Elementary, Manteo Middle School and Manteo High School. Manteo Elementary has a total enrollment of 614. Of these, about twenty percent are children who live in Wanchese. Manteo Middle School has 255 students about twenty-four percent of whom are from Wanchese. Manteo High School has an enrollment of 719 students, of which about eight percent are Wanchese residents.

According to school administrators, Wanchese students reportedly do as well as other students in Dare County schools. According to one Manteo High School administrator, place of residence is not a significant socializing factor in the area. Students generally group together on the basis of similar interests and lifestyles. This informant also noted that fewer children have parents who grew up in Dare County, and that this has diluted the once strong sense of community identity.

The Wanchese Christian Academy (WCA) is the only educational facility based in Wanchese. It was founded by members of the Wanchese Assembly of God in the late 1970's after some of the parents in the church expressed a desire for a Christian school for their children. WCA has six full-time and three part-time teachers. As a private school, WCA is not state certified but is required to meet all normal educational standards. Tuition ranges from \$600 to \$1400 per year depending on grade level. Church members pay slightly less. There are currently seventy-eight students enrolled in kindergarten through twelfth grade. Seventy-five percent of students are local residents. The rest of the students are from areas along the beach, Manteo and Manns Harbor.

WCA uses a "Bible-based curriculum." This curriculum is also offered on video for those parents who want to teach their children at home. Students in tenth grade or above have the option of taking additional courses at College of the Albemarle if these courses are not offered at Wanchese Christian Academy and the student has permission from the principal of the Academy. A work study program is also offered for students in the eleventh and twelfth grades. Student performance on the California Achievement Tests is considered normal or average by the principal.

The College of the Albemarle (COA) offers secondary education to residents of Wanchese and all of Dare County. The main campus is located in Elizabeth City, North Carolina but COA also maintains a satellite campus in Manteo. There is also a COA building in downtown Manteo that houses facilities for a boat-building course. Enrollment during the Fall quarter in 1992 was 441 students. Of these, twenty-six had a Wanchese address. The cost of COA is \$13.25 per credit hour for in-state students.

***Social Services*** Wanchese residents are served by a wide range of public assistance programs and other services administered by the Dare County Department of Social Services. Home Health Care services are provided by the Dare County Health Department. Adult Services are provided through the Department of Social Services. These include In Home Services, Adult Protective Services, General Adult Services, Crisis Services (Emergency Food and Shelter, AFDC-Emergency Assistance, Emergency Food Program, EnergyShare, Crisis Intervention Program), Foster Care for Adults and transportation services.

***Cultural and Recreational Services*** Dare County Parks and Recreation Department maintains the Wanchese Community Center on School House Road in Wanchese. The community center has athletic fields, tennis courts, a playground, and multi-purpose room and classes. Wanchese Community Center has remained a focal point of community events ever since it was the community school. Wanchese Christian Academy also uses the ball field and the tennis courts. The churches use the facility for lunches, picnics and parties. Individuals also hold parties and reunions at the center, and the local Lions Club meets there. Fundraisers for families who have lost housing to fires or storms are held at the center.

Dare County Parks and Recreation Department maintains Westcott Park on George Daniels Road in Wanchese. Dare County also maintains a boat ramp on Wanchese Harbor. While

Wanchese does not have a library, its residents can use the East Albemarle Regional Library which administers three libraries in Dare County, located in Manteo, Kill Devil Hills and Hatteras. The Dare County library in Manteo also runs an in-home library service sending a mini-van into the county two days a week to deliver books to people who can not visit the library. The librarian takes requests or chooses books for them from the county's collection.

### 3.2.6.5 Community Government

The community of Wanchese does not have a formal system of government. The community did organize a civic association at one time but this is now defunct. The association was in response to WSIP development and was active in thwarting unwanted development in the town.

### 3.2.6.6 Local Government Issues

During the 1992 elections, most of the incumbent Dare County commissioners were replaced with candidates from the Democratic Party. The stated priority of this new board of commissioners was reduction of Dare County government personnel and expenditures. In 1983, Dare County employed only 246 persons (Loomis 1993). The current number of Dare County employees is 666.

## 3.2.7 **Physical Infrastructure and Land Use**

### 3.2.7.1 Infrastructure History

The first paved road on Roanoke Island connected Wanchese and Manteo in 1924 (Stick 1958:246). The construction of bridges in the area was more significant for the Outer Banks communities than for Wanchese, although regional bridges did simplify access to the community.

Prior to the advent of electricity, Dare County residents used small, home generator plants called Delco plants to power their homes. Otherwise they used candles, lanterns, wood and kerosene for lighting and fuel. A local power company was started in the early 1920's.

### 3.2.7.2 Physical Infrastructure and Related Issues

**Marine Facilities** WSIP is the largest public marine facility in Wanchese. According to the North Carolina Department of Commerce (1981:4), the WSIP "leases sites and provides basic service to selected firms for construction of seafood and marine related industries in a major commercial seafood handling, processing and distribution port."

The facility is administered by a salaried administrator and an eleven-member Park Authority. Nine members are appointed by the Governor of North Carolina, one by the Lieutenant Governor and one by the Speaker of the State House of Representatives. One member must be from Wanchese, one from Dare County, two from the area, and five from North Carolina at large. The Authority sets the policies and guidelines for operation and development at the WSIP and makes leasing decisions within the park. The Authority also has broader responsibilities such as the promotion of seafood commerce in North Carolina.

WSIP has thirty-eight acres of land ready to lease, 1500 feet of concrete dockage, and water supply and waste treatment facilities. Wanchese Harbor was expanded from a 2.5-acre basin to a fifteen-acre basin in order to accommodate commercial fishing businesses and to function as a safe haven for boats during storms. Although the facility can accommodate approximately twenty to twenty-four businesses, there are currently seven operating within the park.

Dare County does maintain some marine facilities in Wanchese, for example, a Dare County Boat Ramp located in the harbor.

Because of the importance of marine transportation in the area, dredging is important. The U.S. Army Corps of Engineers has had a number of dredging projects that have impacted Wanchese. According to an Army Corps of Engineers staff member, a channel from Manteo to Oregon Inlet was dredged in 1950. In 1962 the basin on the southeast side in Wanchese was enlarged. At this time the harbor area was 200 square feet. The Manteo (Shallowbag) Bay project was authorized by the River and Harbor Act of 1970. This project included the deepening and widening the channel from the gorge in Oregon Inlet to Wanchese from twelve feet deep and 100 feet wide to fourteen feet deep and 120 feet wide. It also included the enlargement of Wanchese Harbor from 2.5 acres to fifteen acres and deepening it from twelve feet to fourteen feet.

**Transportation System** The state paved the road between Manteo and Wanchese in 1924. State Route 345 remains the only land connection between Wanchese and the rest of Dare County. It meets U.S. 64/264 near Manteo. Although Wanchese is accessible by boat, there is no ferry service.

Dare County does not have a public transportation system, but most residents have a car available to them. Roughly eighty-seven percent of all occupied housing units in Wanchese have a car (U.S. Bureau of the Census 1990). Traffic usually flows without delay. The harbor area at the south end of Wanchese is occasionally congested, since there are a number of fish processing businesses, fish markets and commercial vessels in this area. Cars are usually parked on both sides of the road during business hours.

**Water and Sewer System** Wanchese residents use private wells and septic systems. WSIP has its own waste water treatment facility. The fish-packing businesses along the harbor that are not part of WSIP must acquire National Pollutant Discharge Elimination System permits



(NPDES). These permits are required for any discharge of waste water into surface water. The permit process requires publication of a notice in a local newspaper and a thirty-day public comment period.

***Solid Waste Disposal*** Solid waste disposal in Wanchese is handled by Dare County Public Works. After pickup, solid waste is taken to the East Lake Landfill. This is the only landfill in Dare County, although there are plans to open another in the future.

***Energy*** Carolina Power and Light (CP&L) provides most of the electric power in Dare County. Wanchese is served by CP&L.

***Communications*** Phone service in Wanchese is provided by Carolina Telephone. Ninety-eight percent of the occupied housing units in Wanchese have phone service.

One AM radio station and four FM radio stations serve Dare County. Businesses and groups in Wanchese often advertise on these stations. WOBR, "The Beach Station" (95.3 FM and 1530 AM) is located between Skyco and Wanchese.

Dare County residents are served by a number of newspapers. These include the *Virginian Pilot and Ledger Star*, the *Raleigh News and Observer* and the *Daily Advance*. The *Coastland Times* is a newspaper that covers primarily local events and is published tri-weekly.

***Infrastructure Issues*** Water resources and waste water treatment are also important issues in Wanchese. Many residents are concerned that too many individual sewer systems will ultimately pollute the sounds and the aquifer. The fact that the wells from which the county draws its water are located immediately adjacent to Wanchese is a source of resentment on the part of Wanchese residents. Many Wanchese residents are concerned that their wells will run dry as a result of excessive water use by the beach communities. One informant stated:

I know we don't own the water underneath Wanchese, but the fact that the county is pumping the water from underneath us and selling it to the beach communities somehow doesn't feel right.

### 3.2.7.3 Land Use Patterns and Related Issues

***Land Ownership*** Most of the land in Wanchese is privately-owned in small parcels. According to one informant, the largest individually-owned piece of land owned is thirty acres. Family land has been passed down and sub-divided by each generation, a process that results in smaller and smaller parcels. With the exception of 370 acres on the north side of the community, there are no large undeveloped parcels in Wanchese.

**Zoning and Land Use** Wanchese is currently unzoned. Current land use is primarily single family residential, with small commercial use dispersed throughout. Commercial use is concentrated on the southeast side of the community around Wanchese Harbor.

One of the most important current land use issues involves CAMA and other regulations. Some Wanchese informants have stated that CAMA regulations have prevented them from improving or building on part of their property, because they owned estuarine shoreline. Thus, they were required to obtain CAMA permits to build on this property.

The 1987 Dare County Land Use Plan (Stone and Associates 1988:14) addresses land use compatibility in Wanchese and other fishing communities in the area:

Commercial uses occur randomly throughout the community with few sizable areas developed solely for residential purposes. It should be noted, however, that this intermixing of commercial and residential uses in these small communities is oftentimes the result of historical patterns of development related to the commercial fishing industry. In Hatteras, Wanchese and Stumpy Point, for example, home sites were originally selected for their access to navigable water and for the ability to combine a business and residence on the same site. Therefore, the mixing of such uses in these small communities has not historically been as objectionable as it might be in other communities.

**Hazard Areas** Hazard areas in Wanchese include the flood-prone areas that surround the community. These areas are "subject to high velocity waters during a one-hundred-year storm event" (Stone and Associates 1988:23).

The curving nature of Highway 345 also presents a hazard to the community. As the road progresses into Wanchese harbor area and meets frequently congested areas and curvy spots in the road, the possibility for accidents increases.

**Visual Considerations** Much of Wanchese is situated in wooded areas with limited visibility. The town is surrounded by water on three sides and it is possible to enjoy scenic views of the sounds in certain open areas. The south end of Wanchese offers one of these views. A number of old boats, boat parts and other maritime equipment adjacent to the road in certain areas of town is considered a visual blight to some, but character-lending to others.

### 3.2.8 Social and Cultural Characteristics

#### 3.2.8.1 Socioeconomic Background

Like Dare County in general, Wanchese has virtually no ethnic diversity. The population of Wanchese is ninety-nine percent Caucasian.

The economic hardship presently experienced in Wanchese is difficult to document since the community is not distinguished in the social service statistics generated by the various government agencies. Interviews with residents indicate that few residents use or need social services. According to U.S. Census data, only 6.5% of families living in Wanchese had an income below poverty level in 1989.

According to 1990 U.S. Bureau of Census figures, there are 984 people in Wanchese aged sixteen years or older. Of these, 78.6 percent or 773 are in the labor force, including 71.5 percent or 362 of the women. Currently, more women in Wanchese work outside of the home than in the past. The tourist businesses in the beach communities provide a source of employment for women in Wanchese, as do county government agencies and schools. Many women and teenagers from Wanchese find seasonal employment in the beach communities or in Manteo as waitresses or in housekeeping during the tourist season in order to supplement their incomes.

While there are other sources of employment for men in Wanchese such as construction and government, most are connected in some way to the fishing industry. Male residents are fishermen, boat builders, charter boat captains or crew, or work in the Coast Guard, or on tugboats.

Wanchese has experienced little growth as a result of migration into the area for retirement purposes or to join the commercial fishing industry. Wanchese has recently changed from a community in which everyone knew, or was somehow related with, each other into one in which people do not necessarily know their neighbors. Still, the heritage of the commercial fisherman remains as an important defining factor in the social and cultural landscape of Wanchese residents.

#### 3.2.8.2 Sociocultural Aspects of the Community

***Physical Appearance*** Basically, Wanchese can be described as a forest in which some areas have been cleared over the years. Homes are built in cleared areas but have a few trees in their yards. In some areas close to the water, there is a great deal of marsh grass. Although houses are not extremely close together, they are usually within view of each other. Most residents of Wanchese have well-kept lawns with azalea bushes, hydrangeas and other shrubs. The most common lawn decoration is a ship's anchor or propeller.

The harbor area on the southeast side is different from areas of well-tended lawns and houses. Here, the remains of vehicles along with rusted boats and boat parts and tanks long past their prime rest on the sides of the road surrounded by tall marsh grass. The south end, along the mouth of the harbor itself, sports a jetty made from a number of large and small fishing vessels half sunk in the water.

Wanchese is a primarily residential community with one major commercial section on the southeast side. Wanchese, unlike many of the area's coastal communities, exhibits no residential differentiation by wealth. In other words, there isn't an affluent section or a poor section. Brick ranch houses, mobile homes, two-story wooden houses and other variations are located throughout Wanchese. The WSIP and the fish houses are all located in the commercial area of Wanchese. A few boat-building businesses are located on the south end and the west side of Wanchese. Much of the daily activity takes place on the southeast side of the village not only because of the fish houses but also because the post office, the marina, Fisherman's Wharf restaurant, the two churches and the Wanchese Community Center are located in this area. Further north on the east side is the grocery/bank/hardware store and a luncheonette.

*Living in Wanchese* Today, daily life in Wanchese revolves around work and school. Most adults are involved in work activities during the week, while children attend school either at the Wanchese Christian Academy or Manteo schools. While there is usually some activity in the harbor area during the day, Wanchese is busiest in the mornings, as people are preparing for work or school, and in the evenings, as children get out of school and adults return from work. The exception to this routine are those fishermen whose fishing trips last late into the evening or for weeks or months. In the evenings, if the weather is fair, many residents can be seen outside taking care of their lawn or other property. Television is also a popular source of entertainment in the evenings.

Some residents gather at certain eating establishments in the mornings, for example at the Wanchese Marina where fishermen meet before they start work for the day. Another gathering place is the Luncheonette located next to the hardware store/grocery store. Religious-oriented women sometimes gather in the morning at someone's house to pray for an individual or for the community in general. Wanchese residents also participate in church programs and activities as well as volunteer organizations in the community.

There are few organized activities for children. Two Girl Scouts troops and one Boy Scouts troop provide activities for a small number of children. The Assembly of God has a program for girls called the Missionettes that is similar to Girl Scouts but with greater emphasis on religion. Most children go to Manteo for sports organized by either the schools or Dare County. Gymnastics and dance are other activities in which some Wanchese children are involved.

Other popular activities include boating and clamming during the summer months. Wanchese residents also take advantage of the beach and the movie theaters in other communities. However, many informants stated that during the tourist season they try to stay in Wanchese and seldom venture into the beach communities because of the traffic and crowds.

Life in Wanchese is not very fast-paced even though the people here are hard-working. When asked to describe life in Wanchese most informants begin with the familiar "We're just a small, close-knit, fishing community." Their description will continue with the assertion that neighbors look out for one another and will help anyone who has a need. Community ties are often based on church affiliations, but many ties are also kinship based. Many informants spoke of the time twenty or thirty years ago when every resident of Wanchese was related. Although more people have gradually moved into Wanchese from other areas, these kinship ties remain strong.

Few if any women in Wanchese fish commercially, although some work at the fish houses. Most of the women in Wanchese work outside of the home. When they are not working they may be helping their husband if he is a fisherman, taking care of children, doing household chores, or visiting a relative or neighbor.

***Environmental Values and Perceived Threats*** Many informants from Wanchese see the natural environment primarily as a source of livelihood. Historically, Wanchese residents have depended on the sound and beach fisheries to supplement their diet and provide their income. Wanchese residents have also hunted the abundant water fowl. Since the middle of this century, more people have come to rely on commercial fishing as their sole livelihood. Since most long-time residents who are not commercial fishermen can claim one as an ancestor, relative, or friend, most residents are sympathetic to the plight of the fishermen. Therefore, factors which might jeopardize fish or fishing are seen as serious threats to the community. Some of these factors include farm and industrial runoff into the rivers that feed the sounds, recreational fishermen who are ever encroaching on commercial fishing grounds, the omnipresent threat of natural disasters, such as hurricanes, and stricter fishing regulations.

Wanchese residents also see population growth as a threat to their water supply and to the quality of the sound waters. According to one informant:

Environmental degradation [is a problem]. Water has gotten bad and most people are on bottled water. Manteo town water is terrible. Cadmium levels are high in Shallowbag Bay. There is also a loss of open space. Since population in Dare County has quadrupled, there is a creeping ugliness (male historian, lifetime Roanoke Island resident).

Older native Wanchesers, who lived in this area when the area was less accessible and life was reportedly more of a struggle, speak of their experiences with the natural environment with a sense of pride in having survived tough times, difficult weather, sea conditions, and so forth. Still, many describe Wanchese as a paradise where every need was satisfied by their natural surroundings. There reportedly were bountiful hunting and fishing, and most people had gardens. A few informants seemed saddened and bitter that their ability to use their natural surroundings has been limited by the National Park Service or other government institutions. One informant stated that residents in the Assembly of God church feel that the natural environment has been provided by God for their use. With respect to difficult weather, hurricane survival stories are a part of almost any discussion in which a Wanchese native reminisces about the past. People have a healthy respect for the forces of nature such as storms, floods and hurricanes.

Although infrastructure changes primarily occurred some decades ago, the fallout of these changes continues to influence the perceptions of many residents. Many informants have described Wanchese and Dare County as a kind of paradise before the bridges were built. The following is one extreme view of how the area changed as a result of the bridges and increased tourism.

The death of the [Dare] county goes back to the bridges. Before bridges were built, this was an inaccessible place that general tourists didn't visit. People were self-sufficient and had limited means and narrow horizons. There was a sense of community over all the county. We played ball with people who had been associated with the town forever. There were no drugs. It was an uncontaminated, self-sufficient society. Then the bridges were built and brought in the average tourist. People said, 'Tourism, a whole new way of life.' This brought people here who didn't care about the community and were only concerned with money. People bought and bought and developed and developed. As more people with no roots moved in there was no community pride and it became just another place to live (Male, lifetime resident).

***Major Changes of the Last Decade*** Most residents do not believe that there have been significant changes in Wanchese in the last ten years. Life began to change when more people started to move into the county and community. This happened earlier than ten years ago. The changes that began with the influx of people have continued in the last ten years.

Increased tourism has affected commercial fishing practices of Wanchese fishermen, since the number of recreational fishermen in the region has increased over the last decade. This has led to user conflicts between these two groups of fishermen. For example, beach net hauling has been opposed by recreational anglers. This continues to be an issue much debated in Dare County.

***Population Flux and Factions*** The U.S. Bureau of Census population numbers for 1980 and 1990 indicate that recent growth has occurred in Wanchese. Since 1950, the population of Wanchese has more than doubled. The population in Wanchese increased by 275 people between 1980 and 1990. Between 1950 and 1990, the population increased by 755 people. Some of this growth can be attributed to births among the local population. Some of the men from the community have married women from other states and have moved to Wanchese. Some of the women in Wanchese have married men from other areas of the county or state and they now reside in Wanchese.

A number of informants stated that ten to fifteen years ago, they knew everyone in the community and twenty to thirty years ago everyone was related. Now many Wanchese natives do not know all the people living around them and they see faces they do not recognize when they go to the post office. They also point out, however, that Wanchese is not growing as rapidly as the beach areas of Dare County. According to one Wanchese resident, the community population stayed constant until the mid-1960's. This is when some of the fishermen started deep-sea fishing. People started to move here to deep-sea fish. Tourism brought some service-related workers. People who had left Wanchese for alternative work came back to retire and the new generation did not leave because there were more jobs locally available in tourism or deep-sea fishing. Local people used to go to the Tidewater area of Virginia for shipyard work or to join the military service.

***Natives Versus Newcomers*** Some residents feel population growth in Wanchese and in Dare County is causing negative changes. The general feeling is that as people move into the county from other places, the community and family ties are not as strong and community values are undermined. On a more practical level, some informants feel that the old time resident will be pushed out of the area because higher land values will make it impossible for them to afford the property taxes. One informant noted that:

Too many people is a problem. People who move in want to make it the same way as the place they came from. Then they complain about the traffic. I can't hoist it aboard [meaning, I can't understand it]. They end up destroying the very things they thought were attractive when they moved in (female, housewife, Wanchese native).

While there are some differences notable between long-time residents and newcomers to Wanchese, most relationships are compatible. There is a history of rivalry between Wanchese and other communities in Dare County such as Manteo, Kinnakeet (Avon) and Rodanthe. Such rivalries were historically expressed in an outward sense, e.g., in fights, but there is little direct evidence that they continue in that sense today. Some residents of these communities do, however, maintain a strong sense of community identity. Rivalry does exist if only in the perceptions of residents about their neighboring communities.

**Religion/churches** Almost all Wanchese informants identified religion and membership in the two churches as sources of both social cohesion and division. One Wanchese resident noted that:

Wanchese is a little bit clannish from one religion to another. Politics too. But if it really came down to it and you got down to the nitty gritty if anybody needed help, I think they'd pull together.

According to various key informants, the Methodist Episcopal Church South was the only church in Wanchese until the turn of the 20th century. The elders of the church would not permit other religious sects until around the turn of the 20th century. One informant related a story that around 1900 a resident of Wanchese permitted Pentecostals to meet in his fish house. The people who attended that meeting were not strong Methodists and were called "Pennycods" -- poor people whose dietary staple was cod fish, which was a penny a pound. These persons had moved to Wanchese from Rodanthe and Salvo and had no connections in the area. This early group of worshippers became known as the Assembly of God. The church expanded after World War II and constructed its own church.

The Assemblies of God also have a distinctive style of worshipping. Many raise their hands in praise, clap their hands during singing, and pray silently or audibly. When those in the congregation are "filled with the Holy Spirit," they will speak in tongues or speak in an unknown language. The Wanchese Assembly of God currently has eighty members but average attendance at Sunday worship services is 200 to 250 people. While the membership is entirely Wanchese residents, approximately ninety-five percent of those attending Sunday worship services are from the Wanchese area.

Bethany United Methodist Church is the direct "descendant" of the Methodist Episcopal Church South. Bethany United Methodist Church is considered to be the more liberal church. The average attendance at Sunday worship service here is 125. Attendance usually increases in the summer.

The churches are the center of the community for many people in Wanchese. It is a central meeting place and it provides a number of services and programs in the community. This is true of both the churches in Wanchese. Bethany United Methodist participates in the Meals-on-Wheels program, they operate a preschool/daycare center, they have a girl scout troop, they have meetings for senior citizens, and they have prayer meetings, choir practice, Sunday School and worship services.

**Clubs and Service Organizations** Voluntary service organizations and clubs are important to the social foundation of Wanchese. They are a source of assistance for those in need, provide a way for people to get together to share their interests, and are also a way in which



people can make a positive contribution to their community. Few of these organizations are located in Wanchese, but this does not diminish their importance.

The Wanchese branch of the North Carolina Extension Homemakers Association, Inc. was started in 1928. Its original purpose was to teach farm women to sew and can foods. The current mission is to "strengthen families through leadership development, continuing education, volunteer community support, and support systems at community, county, state, national and international levels." The Wanchese Extension Homemakers Association, Inc. currently has approximately seven members. According to one member, membership has dropped because many young women are busy working outside of the home and are very involved in their children's activities. Although small, this group is active in the community. They donate their money and their skills to the Wanchese Community Building and other causes. When a member dies, members traditionally make a donation to that person's church.

The Wanchese Lions Club currently has seventeen or eighteen members. Although small, this group is very active in Wanchese. In addition to their regular charitable activities, the club has donated money for the renovation of the Wanchese Community Building and sponsor a Boy Scout troop in Wanchese. The primary purpose of this club is to assist those in the community who are visually or hearing impaired.

The Oregon Inlet Users Association was formed in the late 1970's in order to promote the plan to build jetties at Oregon Inlet and to serve the needs of the commercial fishing industry. There are currently between 300 and 500 members of this group from all over eastern North Carolina. This membership consists primarily of commercial fishermen but also includes insurance companies and fuel dealers involved in the commercial fishing industry. Each year on the last Saturday of June this group organizes the Wanchese Seafood Festival and Blessing of the Fleet to promote the commercial fishing industry in the area.

*Interest Groups and Other Voluntary Associations* Interest groups and other voluntary associations active in a community are indicative of the major interests of residents. The following describes some of the key interest groups in Wanchese.

The North Carolina Fisheries Association (NCFA) is based in New Bern, North Carolina and has been active since 1952. NCFA is a trade group that represents seafood dealers and commercial fishermen in North Carolina. This group is governed by an eighteen-member Board of Directors. Two members of this board are from Wanchese.

Friends of Roanoke Island was started in 1988 by a member of the Board of Directors of the North Carolina Coastal Federation. This person felt the need for an organization "closer to home" that would address problems specific to Roanoke Island. Clean water is the primary emphasis of this organization. Most of this group's activities thus far have concentrated on problems on the northern end of Roanoke Island.

***Social Structure*** Wanchese residents describe their community as a small close-knit fishing village in which neighbors respect each others' privacy but are ready to lend a helping hand. Many residents claim that people in Wanchese look out for one another:

If someone gets sick there's someone to help them. I got home one day and his wife was wringing her hands. There was a man who was about to lose everything he had. I came in and found out how much he needed and went out to my friends and came back a little while later with \$1200 dollars for the man. If I need some equipment for fishing and the other person isn't going to use it that day, I'll just use it. If I need a boat trailer, I go and borrow one. I will tell the person if I see him. Also, if a boat is broken down in the water they seldom call the Coast Guard. They'll [other fishermen in Wanchese] bring it in themselves. A kind of brotherhood of fishermen. There is a closeness in the community that is hard to find anywhere else (male, boat captain).

The strong sense of community is something that almost all informants valued about Wanchese. The identity of many Wanchese residents is rooted in the heritage of the independent commercial fisherman. This lifestyle has enabled many generations of a family to live in the same area and work in the same occupation as did their forbears. As commercial fishing declines in this area, it will affect the social structure of the community.

Other important aspects of the community identity in Wanchese are the prevalence of strong familial ties and the continuity of the families in Wanchese. Many informants have stated that, twenty to thirty years ago, everyone living in Wanchese was related. The commercial fishing heritage in Wanchese has been passed along many generations. Often, commercial fishing boats, businesses and skills have been passed from father to son. Land has generally been passed down in the same way. One informant stated that years ago the road on which he lives was inhabited only by relatives. Another stated that:

a true Wancheser is someone who was born here and is second or third generation Wanchese. People remember if your parents weren't from here (business manager, long-term resident).

When this informant spoke with his great-grandmother about the way Wanchese used to be, she said, "Everyone was related with the exception of Mr. [name withheld] and he was a carpetbagger." Many informants who have lived in Wanchese from twenty-five to forty-five years joke about the fact that they are not true residents.

Based on key informant interviews with natives of Wanchese and Dare County, locals tend to be fairly private and make alliances with people who move in only after some period of time.

A person who moves to the area and accepts the locals and their customs is able to gain the favor of locals fairly quickly. As stated by a long-term resident and school system employee, "You can fit in if you want to. . . if you don't, that's okay too." If there is any resentment among the locals, it is directed more towards the people who move into the area and:

proceed to explain why if we changed things we would be as good as the place they just came from. And since almost no one has ever been transferred to this place, most of them have moved of their own volition. That doesn't go down very easily with the locals. There's a lot of resentment for someone who sells his home in Fairfax County, Virginia, moves down here because it's so wonderful, and then starts complaining because of the problems. . . So it's a mixed bag. If you want to be part of the community and live within the community there's a very high level of acceptance. If you come down here and try to change the place, there is a very significant amount of bitter resentment.

One informant felt that natives of Wanchese do not like living in other places because they lose their identity. Within Wanchese, individuals have a strong identity and a very strong system of social support. Residents typically have kinship ties and friendships with people they have known since kindergarten. Another informant maintained that "anyone who gets his feet wet in Mill Creek will come back."

Informants have stated that economic stratification is not in evidence primarily because most of the residents work in the same industry. One informant maintained that a person in Wanchese is not judged by income, type of dwelling or education. Wanchese residents value a person who does what needs to be done in the community and who takes responsibility for his or her own work, as noted in the words of a male resident:

There is no difference between a person making a hundred thousand dollars a year or making twenty thousand. You'll see them using the same dock, wearing the same clothes, talking the same language. They could drive up in a Cadillac or a BMW and get out and speak the same language. There may be some unspoken difference. A person may wish that he could be like the other person, but otherwise there's no difference.

Wanchese residents historically have differentiated between groups of people based on the church they attend, the family to which they belong and the geographic area in which they reside. According to one informant, there was social differentiation between the east and west sides of Wanchese until World War II. The East side was seen as less elitist and the West Side was the home of the socially elite family of the time. According to this

informant, the opposite holds true now; the East Side is seen as more socially elite. It has commercial fishermen who own the land around the harbor.

### 3.2.8.3 Social and Cultural Issues

The following is a description of issues of importance to residents of Wanchese. Based upon a series of interviews, the top five issues in Wanchese are: (1) the stabilization of Oregon Inlet, (2) regulations on commercial fishing, (3) water problems, (4) regulations on building, and (5) development and population growth, sewage problems and drugs and crime. The relationship of Wanchese to Dare County government is also discussed.

***Stabilization of Oregon Inlet*** The stabilization of Oregon Inlet is a major issue in the minds of many Wanchese residents because of the local importance of the commercial fishing industry and the related need for safe passage to and from the ocean. One informant stated that she was unsure about the environmental effects of jetties but that "it is bad when you have a husband or father that can't get in when there's a storm." Insurance companies require higher premiums for coverage on boats that use Oregon Inlet because it is so dangerous. Because of these conditions, at least two of the fish houses in Wanchese have opened operations in Virginia and Massachusetts because their boats cannot safely and reliably get in and out through Oregon Inlet.

Some residents feel Oregon Inlet needs to be stabilized so that the sounds will be flushed with salt water. These individuals fear that farm and industrial runoff from rivers that flow into the sound will stay in the sounds and estuaries and will adversely affect the fisheries if there is no regular flushing action through the inlet. One fish dealer summarized the feelings of many residents:

With Oregon Inlet, the boats can really only get in and out during high tide and it is dangerous at night. If there's bad weather, ships can't get out and the easterly winds make it especially tough/rough. Jetties would help the community of both commercial and recreational fishermen. It would provide safe entry and aid the flushing of the sounds.

Wanchese Seafood Industrial Park Authority members are concerned about this issue not only because of the effect it would have on the success or failure of the Wanchese Seafood Industrial Park but also because inlet stabilization was part of the WSIP project plans. The State feels that it has lived up to its agreement to build the WSIP as part of the Manteo (Shallowbag) Bay Project and now expects the federal government to fulfill its agreement to stabilize Oregon Inlet. However, many feel that because of the decline in the commercial fishing industry, the WSIP would never be a success even if Oregon Inlet was stabilized.

Not all Wanchese residents are in favor of inlet stabilization. These individuals do not want the additional people in the community that stabilization might bring. A few informants pointed out that, during the late 1970's, when there were more boats coming into Wanchese, there was a problem with drugs in the area. Some of the fish houses had to hire their own harbor patrol. The primary reason Wanchese informants oppose the jetties is, thus, because of the changes in the social environment that more people would cause. One concerned informant proposed that:

. . . if Oregon Inlet is stabilized, Wanchese will have bars and people who work on fishing boats . . . Now there is nothing to do in Wanchese and these people go to the beach. If a larger fleet comes into Wanchese, there will be bars (fish dealer, native).

***Commercial Fishing Regulations*** Commercial fishermen feel that they are being bombarded with regulations and that these regulations will eventually end the commercial fishing industry. One complaint is that there are too many regulating bodies with no cooperation between them. This reportedly makes regulations confusing and hard to understand. A commercial fisherman in Wanchese expressed his frustration with regulations when he said:

I can't keep up with the regulations and it is such a strain.  
You're breaking laws without even knowing you're doing it.  
It's a continuous struggle. I have two children and I can't encourage them to go into this business.

Many feel that the data gathered by the regulating agencies are not accurate or are not realistic. The perception also exists among commercial fishermen that they are regulated more heavily than recreational fishermen and that this is unfair. This has led to conflicts and resentment between recreational and commercial fishermen. These sentiments are summarized in the following statement made by a commercial fisherman in Wanchese:

Usually, when you see someone with a suit and tie, they're here to slap more regulations on you. They base regulations on numbers and scientific studies, but these studies aren't right. They use fish house records and do not have good records on recreational fishermen. Recreational fishermen lie about what they catch.

Ultimately, most informants, including those who are not commercial fishermen, feel that this industry is close to extinction primarily because of the regulations and that regulations make it increasingly difficult for commercial fishermen in the United States to compete with foreign fishermen:

Environmental regulations will kill them [commercial fishermen]. They would be good if they were uniform all over the world. But we can't compete with foreign fish prices (fish dealer, native).

According to many local fishermen, gear requirements increase the cost of fishing. And limitations on the number and types of species that can be caught limit a fisherman's ability to make money:

Flounder fishing right now is a big issue. We have to use TEDs. There hasn't been enough research done and they're going to put us on a quota system with flounder in January. Fishing regulations is just going to put the commercial fishermen out of business.

**Water Resources** Water resources and waste water treatment are also important issues in Wanchese. The fact that the county wells are located in Skyco adjacent to Wanchese is a source of resentment on the part of Wanchese residents. All of the residents of Wanchese get their water from wells that rely upon aquifers underneath Roanoke Island. Dare County operates a number of wells in Skyco just north of Wanchese. These wells use the same aquifer system as do wells in Wanchese. Many residents of Wanchese are concerned that their wells will be adversely affected by the volume of pumping done by the Skyco Plant. One informant expressed this resentment saying:

The county put in a water system and said it wouldn't affect the wells in Wanchese. But some of the wells ran dry about ten years ago because the Beach uses too much water.

A few Wanchese residents expressed concern that the community may sink if too much water is pumped from under Wanchese. These individuals cited the inland community of Aurora as an example of how this has happened:

We are not selfish. We don't mind sharing [our water] but we don't want our community to sink or salt water to fill our wells.

Some informants feel somehow cheated because their perception is that county government is selling water that comes from underneath Wanchese. As one informant put it:

I know we don't own the water underneath Wanchese, but the fact that the county is pumping the water from underneath us and selling it to the beach communities somehow doesn't feel right.

This could eventually become a major issue if Wanchese is forced to hook up to the county water system because their own wells have filled with salt water or have gone dry. This would mean that Wanchese residents would have to start paying for what they have been getting for free. Further, since water consumption has increased during the summer months because of thousands of tourists visiting the beach areas, Wanchese residents will see this as yet another way that they suffer because of tourism in other communities.

***Building Regulations*** Some informants cite building regulations as an important issue in Wanchese. Many residents in Wanchese and along the Outer Banks are frustrated with regulations that limit their ability to build on property they own. One complaint is that the permitting process is too complicated. Some residents note that CAMA requirements increase the cost of building on their property and make it too expensive for most people to build a house. One Wanchese resident stated:

Development is restricted. You have to build eleven feet above sea level and this makes it more expensive to build a house.

Others are frustrated because they believe that housing and business developments in Dare County have been able to build on wetlands. The general perception is that if a person has enough money or contributes to the right political official, that person can get through the permitting process and develop land. The following quote from a Wanchese resident summarizes the feelings of many in Wanchese and Dare County:

I've been drug to court like a common criminal for putting a little bit of sand out here in the marsh just to try to exist down here. Yet some crowd out of Raleigh or Rocky Mount can come down here and buy 500 acres of marsh, and fill it and turn it into a bunch of town houses for a bunch of outside people. But a man who lives here, he can't even put a trailer in his backyard for his child to live in.

***Problems Associated with Population Growth in the County*** Many of the informants cited population growth in Dare County as an issue that needs to be addressed. Informants associated many problems in Wanchese and in the county with population growth. The problems mentioned by key informants were overdevelopment, crime, and others such as the increased cost of living. Environmental degradation resulting from the increased number of septic systems in the county was also mentioned. Many residents are concerned that too many sewer systems will ultimately pollute the sounds and their water source. One informant stated:

Sewage is a problem. Everybody has their septic tanks and drain fields. Pretty soon the sewage is going to start bubbling out of the ground. Wanchese will eventually have to get on county water.

Because of the limited amount of space on which to develop, many feel that Dare County has reached full capacity and cannot support a larger population. As one informant put it, "We're [Dare County] as big as we can stand to be."

Other informants felt that crime and drugs had become more of a problem as population increased. They feel that drugs are more of a problem among young people. One informant stated:

The number one problem is drugs. I can name three people that I know are selling drugs. I can go and tell the police about it and nothing is done about it. And this comes along with growth, not progress but problems.

Based on police reports and informant interviews, there is little empirical evidence that crime and drugs are a problem in Wanchese. However, within Dare County as a whole, the crime rate increased between 1990 and 1991 and is higher than the North Carolina average.

Some informants also believe that the numbers of people moving into Dare County results in a larger tax burden to county residents. Higher property values associated with growth have increased the amount of property taxes that people have to pay. Others point out that many people move into Dare County for summer jobs and stay after the job is over, putting a strain on social services and ultimately costing taxpayers more money. According to one Wanchese resident:

Prosperity has ruined us. More people are on welfare percentage-wise in Dare County. When I was a little boy I never heard about anybody in Dare County being on welfare. Didn't even know what it was. Too many people moved into the area and the area couldn't support it. There's not enough year-round work. When summer jobs are over, people are out of work and what does that do? It puts our unemployment up, our social services up and the people who are working full time have to pay for that stuff. Crime is a problem in Wanchese. We are having problems we never used to have.

Others just feel that population growth is undesirable, because it ruins the beauty and the culture of the Outer Banks and has made it more like the large towns and cities from which many people have moved. One informant observed that there has been "a loss of open space since population in Dare County has quadrupled and there is a creeping ugliness." Another informant described the changes that Wanchese residents have endured because of population growth:



Influx of people in the county destroys all the things that make this a place people want to live. This area to a man moving out of the city is a quiet, peaceful area. And look, I don't blame people for wanting to come down here, but you can't blame us not to wanting too many to come. If I lived in a city I'd want to move too. My generation has seen the biggest change in Dare County. When I was young, there were only 5,000 people in the county. You could do anything, duck hunt in the marshes or whatever. More people leads to more restrictions and no one likes to have their privileges taken away from them.

According to another key informant, population growth in Wanchese and in Dare County is causing negative changes. The general feeling is that as people move into the county from other places, the community and family ties are not as strong and values are undermined. On a more practical level some informants feel that the old-time resident will be pushed out of the area because higher land values will make it impossible for them to afford the property taxes.

Too many people is a problem. People who move in want to make it the same way as the place they came from then they complain about the traffic. I can't hoist it aboard [meaning I can't understand it]. They end up destroying the very things they thought were attractive when they moved in.

***Changes in the Commercial Fishing Industry*** According to Stick (1958:240-241), commercial fishing on the Outer Banks was declining during the first half of this century. Reasons involved the increasing cost of equipment, the decreasing price of fish, the increase in tourism (which lured men away from fishing) and the disappearance of fish due to pollution and overfishing (Stick 1958:240-241). In fact, the general economy of the Outer Banks was declining. Traditional sources of livelihood such as stock raising, and lifesaving operations lost their importance. Wildfowl was becoming scarce as was maritime traffic such as steamboats (Stick 1958:242). The following description sums up the dismal conditions on the Outer Banks in the 1920's (Stick 1958:242-243):

There was no shipbuilding on the Banks, no commercial outlet for yaupon; no more whaling; no porpoise seining from the beach. Commercial gunning was outlawed, the diamondback terrapin was practically extinct and a blight was destroying the eel grass. Even the commercial fishermen were beginning to have difficulties. . . In the other communities, the older folks stayed on, but many of the young men and women were leaving the Banks to seek a livelihood elsewhere.

Despite this dismal depiction of conditions on the Outer Banks, many older informants remember Wanchese as a "paradise." There reportedly was never a shortage of food because there were always fish, fowl and vegetable gardens. There was no pollution and people depended on themselves and their neighbors. Residents also report having enjoyed getting together for celebrations and for visiting.

Some informants remember the kind of fishing that took place in the 1920's, 1930's and 1940's. Fishermen from Wanchese practiced beach seining and set netting on the beach. They would haul their catch from the beach side to the sound side of the barrier islands with a horse and cart and across the sound with sailboats. There were also fishing camps both on the beach close to Oregon Inlet and in the marsh areas. Fishermen in the marsh camps would use pound nets to catch shad and rockfish. At this time they had to pull their nets up every week and lay them on the rushes to dry and treat them with tar to keep them from rotting. There were also fishermen who used small boats to fish for flounder and other species. Oystering and crabbing were popular as well.

Informants recall that fishing was not good in the 1930's and that many families moved away from the area to seek employment. The Coast Guard and the Merchant Marines provided employment for some of the men who left the area. Two informants stated that they started in the Coast Guard making \$21.00 per month. The decline in the fishing industry began to change, according to one informant, in 1944 and 1945 when there was a big croaker run. Croaker had gone away but had come back that year. Fishermen used long nets and caught "piles of fish." According to this informant, this croaker run helped some people get back on their feet financially.

Despite this brief upturn, many fishermen were in need of work and found it during the 1940's when two oil companies came into the area. These companies surveyed and drilled four oil wells, one in Buxton, one in Mashoes, one in Stumpy Point and one in Pamlico Sound. They provided a much-needed source of employment for some Wanchese residents. According to one informant, a person could make \$25.00 a day working for these oil companies. A few Wanchese residents with boats were employed as survey boats for these companies. When the oil companies capped their wells and left the area, Wanchese boat owners used their boats for other endeavors such as sport fishing, shrimping or other lucrative uses. According to one fisherman, sport fishing was prevalent in the 1950's. In 1952, many sport fishing boats re-located to the Oregon Inlet Fishing Center. Sport fishing has continually grown since that time.

Development of the commercial fishing industry in Wanchese since the middle of this century is linked to the dredging projects done by Dare County and by the United States Army Corps of Engineers. According to one informant, the growth in commercial fishing in Wanchese began when the county dock was built. A 200-foot harbor was created on the lower east side of Wanchese. Fishing areas and vessel sizes were limited until after 1950, when the Corps extended a channel that already ran from Manteo to Oregon Inlet to the harbor in Wanchese. This gave fishermen in Wanchese easier access to ocean waters and made it possible for

them to operate larger vessels in the area. Key informants have pointed out that there were no large trawlers in 1950. A forty-foot boat was considered to be really big at this time. In 1959, one fisherman bought a sixty-five foot boat and other fishermen started buying larger, oceangoing trawl boats in the 1960's and 1970's. According to a number of informants, these boats were much less expensive during that time. The larger size increased the amount of time that could be spent fishing on a single trip. Because of these changes, commercial fish landings increased and the commercial fishing industry in Wanchese experienced a boom.

Technological improvements, such as motors for boats and improved electronic navigational gear, also contributed to the boom in the commercial fishing industry. Because of these developments, fishermen were able to cover a greater range at a faster speed, and with an increased power for dragging. This has all translated into bigger landings. Improved electronic navigation aids and fish locators have made fishing efforts more efficient. One informant described commercial fishing as being more a game of chance in the past. Technological advances, such as plotters and sonar, have taken much of the guess work out of fishing. This informant also credited bigger nets and quicker winches for pulling in the nets for increasing the industry's efficiency and for allowing overfishing. However, many of the fishermen interviewed do not believe that overfishing is the primary reason for difficulties with certain species of fish. They explain that these problems are part of a natural cycle. A popular example of this cycle is evinced with bluefish. A number of informants remember that bluefish disappeared in 1937 but came back in 1952. They were also much bigger when they returned than they had been in the past.

In the late 1970's and early 1980's, efforts peaked as more people entered the commercial fishing industry and methods and technology improved. Longhaulers and gill netters increased in numbers in the late 1970's, but this gradually declined as the croaker and trout fisheries declined. The types of fishing currently prevalent in Wanchese are trawling and gill netting in the ocean; and longhauling and shrimping in the sounds during the summer. These fisheries are relatively stable. Crab potting is also a major industry.

During the 1980's as fleets split up and the inlets became less navigable, commercial fishing started to decline. Now the number of boats working out of Wanchese is smaller. In addition, the boats that work out of Wanchese are fishing in distant places such as the Northeast U.S., Alaska and the Pacific West Coast. Whereas forty to fifty vessels (and some DMF employees and Wanchese informants say upwards of 100 boats) fished out of Wanchese in the late 1970's and early 1980's, now only twenty or so boats fish commercially out of Wanchese. Some commercial fishermen will now stay at sea fishing for months.

Commercial fishermen in Wanchese feel that their interests are being overshadowed or ignored in favor of recreational fishing interests. They state that they want to cooperate with recreational fishermen, but recreational fishermen want to put them out of business completely.

Some local fishermen are involved with church groups and groups such as the Lions Club. While fishermen here attend fisheries-related meetings as necessary to fight for their own interests, many do not like or have time to go to meetings. It is also very hard for commercial fishermen to get together as a unified force because there is competition between different types of fishermen, e.g., net setters, longliners, and so forth.

*Government Involvement in Wanchese* There is a standard belief in Dare County that the community of Wanchese is resistant to government intrusion. If asked, a native of Wanchese will confirm this and say, "Does anyone like government intrusion?" In fact, during an interview with a group of Wanchese residents, one person stated, "There's one thing you can say about a person from Wanchese. He don't like anybody from outside telling him what to do" [male, commercial fisherman]. This does not mean that the population in Wanchese is militant or anarchistic. They pay taxes and benefit from county, state and federal programs such as roads, bridges, schools and garbage pick up. The type of government involvement they resist are things that intrude on their personal lives, such as zoning which would in some cases restrict use of their property, things that affect their ability to make a living, such as commercial fishing regulations, and things which they feel are unnecessary, such as incorporation.

Residents explain that for many years in the first part of this century, the villages on the Outer Banks and Roanoke Island were small and rather isolated. This promoted a great sense of self-reliance, cooperation and a certain degree of autonomy within these villages. As one informant stated, "We didn't have government. We didn't need it and we didn't want it" [male, Dare County native, Dare County schools]. As the area was made more accessible with bridges and roads, tourism and population grew. These factors ultimately led to increased government involvement as the growing population required infrastructural development. According to a Dare County government official,

Most of the people of Wanchese are pretty independent people. That's their heritage. That was the heritage of the entire Outer Banks at one time. These folks they want to live and let live, and do not like outside intrusion. Zoning, that is a very good example. It is easier to govern unzoned property than zoned property . . . If there are conflicts among neighbors, they can't come to government for settlement. They have to settle it amongst themselves . . . They don't necessarily resist government intrusion, they just traditionally have less of it [government intrusion].

Wanchese Civic Association was formed to give Wanchese a voice in Dare County. However, it quickly dissolved when members began using it as a tool to encourage the zoning and incorporation of Wanchese. According to key informants, one or two people told the commissioner that Wanchese needed to be zoned and the county "took the ball and ran with it." At first, some residents thought that zoning would be a way in which they could control development in Wanchese and keep it the same. Some informants said that some people from the county planning department "tried to scare people to death saying that a beer

joint would open up next to their house if they didn't zone." However, when Wanchese residents learned that they would have to use existing county zoning guidelines, they backed away from the idea because there wasn't enough flexibility. Also, according to one informant, "some people began to get too picky and wanted to zone out nets and horses in yards" [male, Wanchese native]. A petition opposing zoning in Wanchese was signed by 400 people and eventually the idea of zoning was dropped.

Many Wanchese residents say they distrust the federal government because of promises government agencies have not kept over the years. According to older informants, the National Park Service promised not to interfere with traditional fishing activities on the beaches but these practices were eventually discontinued. Another more recent example is found with the joint federal, state and county project which included the construction of Wanchese Seafood Industrial Park, the stabilization of Oregon Inlet, and the dredging of channels in these areas. To date, the stabilization of Oregon Inlet and the construction of jetties has not occurred.

Interaction between Wanchese residents and different government agencies illustrate the distrust of the part of Wanchese residents. Recently, a public forum was held at the Wanchese Community Building to discuss permitting mistakes made with the Washington-Baum Bridge Highway Expansion. Representatives from the U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, N.C. Department of Transportation and N.C. Division of Coastal Management were present at the meeting, as well as twenty concerned citizens. The government representatives attempted to explain and apologize for their mistakes. During this discussion, one Wanchese resident voiced his frustration with these representatives by stating, 'Do you think we're stupid . . . you must really think that we are stupid here.' This individual feels that government agencies attempt to keep things from the citizens of Dare County and works against citizens instead of for them.

Another example illustrating this frustration with the government was reported in the Tuesday March 23, 1993 edition of the Coastland Times. A Wanchese fish house owner was taken to court and found not guilty of refusing to allow inspection of seafood at his fish house. A marine biologist from NCDMR wanted to sample the striped bass for "size, weight, gender and age for an assessment of the resource population, not for any health reasons for seafood consumption" (Coastland Times 1993:1). The fish house owner started refusing inspections two years ago because:

state records obtained at my business were used to keep us out of business. . . My constitutional rights were being violated. I am being inundated with government regulations (Coastland Times 1993:1).

### **3.2.9 Summary**

The social and cultural foundation of the community in Wanchese has traditionally been based upon strong familial ties and a reliance on maritime occupations. Like other communities along the Outer Banks, Wanchese was fairly isolated from other areas until bridges and roads were built and telephones and televisions became commonplace. Unlike these other communities however, Wanchese has never attracted many tourists and is not an area that motorists travel through to get to another place. Consequently, Wanchese has not experienced the rapid growth that other areas in the region have and has been able to maintain its cultural traditions to a greater extent. The ups and downs in the commercial fishing industry have affected the community of Wanchese at times causing out-migration of families looking for work when the fishing was not sufficient. Retirees returning to their community of origin were among the new faces in the 1970's and 1980's, with younger persons seeking to make their living in the then growing commercial fishing industry. Population growth has been slower in Wanchese than in the rest of Dare County. Nonetheless, Wanchese has grown and is feeling the effects of population growth in the county. Larger populations have increased the need for government involvement throughout the county. Competition for resources is also a major issue as more people are using the same water source and more fishermen are trying to catch the same fish. Pollution of the ocean and sounds by increased numbers of sewer systems is also a concern.

### 3.3 NAGS HEAD

#### 3.3.1 Introduction

Nags Head was selected for study as a tourism-dependent community in the study area. Nags Head is an incorporated beach resort community on the northern Outer Banks in Dare County. For the casual visitor, the town may blend into the more northerly towns of Devil Hills and Kitty Hawk. Oftentimes, people call the entire region Nags Head, ". . . a usage not kindly taken to by the Kitty Hawkers and Kill Devilites" (Stick 1958:271).

Nags Head has a long history of seasonal tourism; it is a resort town where the summer population far outnumbers year-round residents. The principal tourist attraction is the ocean. The need to maintain adequate infrastructure and stimulate local economic growth, while protecting its appeal to tourists, remains a challenge to local planners.

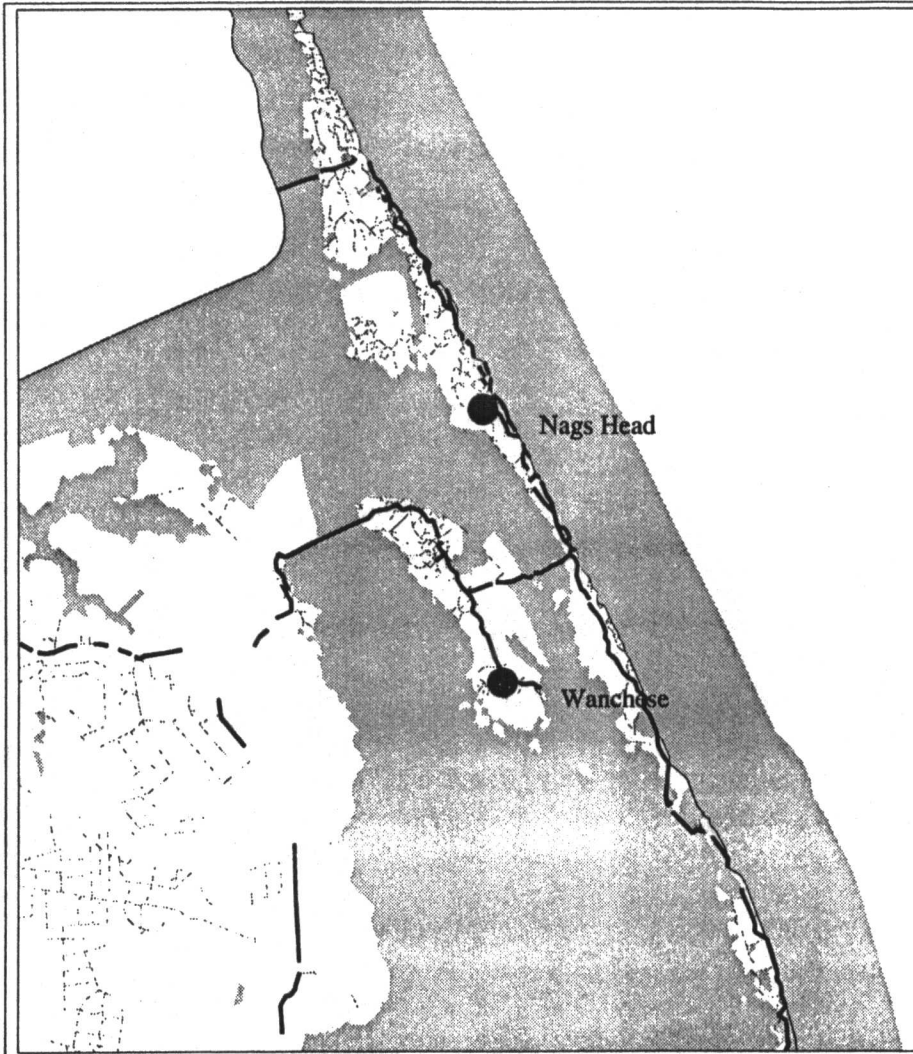
#### 3.3.2 Physical and Biological Environmental Overview

Nags Head is situated along the Atlantic Ocean on the northern Outer Banks. Roanoke Sound lies west of the community, and the Pamlico Sound lies south.

Prevailing southwest winds and relatively cool waters offshore combine to make Nags Head a comfortable destination for the summer visitor from hotter inland areas. In summer, Dare is hot and humid, although sea breezes may cool the immediate coast. Winter is cool with occasional cold spells. Rains may occur through the year and can be fairly heavy. Snow is a rarity.

Nags Head is not without its share of bad weather, however. "Nor'easters" in the late fall and winter, and tropical storms and hurricanes in the late summer and fall can cause locally dangerous and destructive conditions. Storm potential underlies strict building requirements along the immediate coastal area.

Nags Head is bordered by miles of beach, sand dunes, and ocean to the east, and wetlands and sound waters to the west. Jockey's Ridge, the tallest sand dune in North America, is the most prominent physical feature in the town. Nags Head Woods, co-owned by The Nature Conservancy and Nags Head, is a large maritime forest also situated within town limits. The forest was slated for development, but the two parties came to a mutual decision to save the endangered ecosystem.



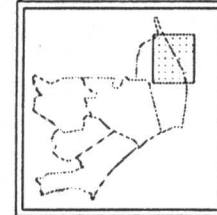
# COASTAL NC STUDY AREA BY COMMUNITY

## Legend Explanations

- Case Study Communities
- County Boundary
- Water Body
- Land Mass
- State Hwys
- - - County Roads
- · · Local Roads



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The land and vegetation along the Outer Banks are continually shaped by the forces of the ocean environment. Nags Head is characterized by vegetative zones common to the Outer Banks: foredune-beach, shrub, maritime forest and marsh. The foredune-beach area undergoes constant change due to sand deposition and wave action. American beach grass, Area oats, Seashore elder and Bitter panicum are the major vegetation in this zone. Newhan and Dune land soils are predominant.

The grasses and shrubs in the shrub zone grade into thickets as they progress inland. The soils in the shrub zone are Newhan, Corolla and Duckston. American beachgrass, Sea oats, Bitter panicum, Live oak and Yaupon holly grow well in Newhan soils. Live oak, Northern bayberry, Wax myrtle, Broom sedge and Saltmeadow cordgrass grow in Corolla soils. Saltmeadow cordgrass, Eastern baccharis and Wax myrtle are found in Duckston soils. Rabbits, foxes, hawks and several species of songbirds, such as mockingbirds and wood thrushes, thrive in the shrub zone.

Salt spray affects the fringes of maritime forest zone but decreases in influence in the interior parts of the forest. Live oak, Loblolly pine, Yaupon holly and Redbay are the dominant trees in the forest. Fripp fine sand, Osier fine sand and Ousely fine sand are the major soils in the zone. Wildlife in the forest includes quail, rabbits, foxes, songbirds, various snakes, hawks and rodents.

The marsh zone is situated on the sound side of the Outer Banks. The dominant soils in the zone are Carteret, Currituck and Hobonny. Needlerush, Cordgrass, and Eastern baccharis are the major plants. Cattail, sawgrass, Wax myrtle and willow also grow in isolated areas of the zone. Raccoon, muskrat, nutria, waterfowl, rails and other estuarine and marsh birds, are common wildlife in this zone (Soil Survey of Dare County North Carolina, 1992:2-3).

Perhaps most important among local natural resources are the many species of fish that migrate through the area on a seasonal basis. Spot, drum, trout, bluefish, tuna and marlin are popular species pursued by surf- and offshore recreational fishermen from all around the state and country. It is not uncommon to see hundreds of fishermen on the beach at Nags Head during the summer and fall months.

A number of threatened and endangered birds and reptiles frequent the area. These include: the American Bald Eagle (*Haliaeetus leucocephalus* -- endangered), Peregrine Falcon (*Falco peregrinus tundrius* -- threatened) Piping Plover (*Charadrius melodus* -- threatened), Red-Cockaded woodpeckers (*Picoides borealis* -- endangered), Least Tern (*Sterna albifrons* -- special concern), Osprey (*Pandion haliaetus* -- special concern), Atlantic Loggerhead Sea Turtle (*Caretta caretta* -- threatened), and American Alligator (*Lacerta spp.* -- threatened).

### 3.3.3 Community Chronology

Sir Walter Raleigh supposedly landed south of Nags Head during his visits to the New World in the late sixteenth century. The earliest mention of Nags Head proper is on a map developed by James Wimble in 1738. Early settlers raised livestock, farmed and fished (Stick 1958:271).

In the 1830's, residents from Eastern North Carolina came to the area seeking refuge from mosquitoes and malaria. Many purchased land just southeast of Jockey's Ridge on what is now Old Soundside Road. A hotel was built by permanent settlers in 1838 to accommodate the growing number of seasonal visitors.

The ocean environment shaped the lives of early settlers and visitors in a variety of ways. Storms and winter weather presented numerous challenges and access to the area was extremely difficult. Difficulties in accessing the area were partially addressed in the mid-nineteenth century when a half-mile long wharf was built to simplify access to the community from the shallow waters of Roanoke Sound.

Nags Head's status as a resort town was interrupted as the Civil War reached its shores. Fighting broke out along the Outer Banks in 1861, and in January 1863 the Confederate army seized the hotel in Nags Head for use as a command outpost. The Confederates later fled, but not before burning the hotel to keep it out of Union hands. Summer residents returned to Nags Head in 1867 and the first summer cottages were built on the oceanside just east of the soundside community during that period. The region's first life-saving station was built in Nags Head in 1874, and the first post-office was established in the town in 1884.

Development of the ocean beach area flourished during the late 1920's and early 1930's when the Washington Baum and Wright Memorial bridges were built. These bridges connected the Nags Head area to Roanoke Island. After creation of Cape Hatteras National Seashore following World War II, Nags Head became a major destination for tourists visiting the adjacent national seashore. Accessibility to the area was furthered in 1957 when the William B. Umstead bridge was constructed across the Croatan Sound to connect Manns Harbor with Roanoke Island, and again in 1961 when the Alligator River Bridge was constructed across Alligator River. The Herbert Bonner bridge was constructed across Oregon Inlet in 1963. This bridge connected Bodie and Pea Islands and simplified travel along entire length of the National Seashore.

Nags Head was re-incorporated in 1961. The town had incorporated in 1923 but became unincorporated some time thereafter (Dunbar 1959:101). Residents report that Nags Head and Kitty Hawk incorporated to protect portions of their towns they felt were going to be annexed by Kill Devil Hills (*The Coast* 1986:1,11).

Nags Head grew dramatically in the 1970's and 1980's, as large tracts of land were purchased and developed by outside real estate groups. Land prices increased dramatically as Nags Head was marketed as a tourist destination to the general public. Nags Head continues to be a popular tourist destination primarily during the warmer months. Most high-priced real estate development, however, is now occurring in the Duck and Corolla areas north of Nags Head.

### **3.3.4 Demographic Characteristics**

#### **3.3.4.1 Population History**

Nags Head was incorporated in 1961, and was not enumerated as a distinct town until the 1970 census. Population figures for Nags Head prior to 1970 must therefore be estimated from Nags Head Township figures and secondary sources (e.g., Dunbar 1959:101). The local population has grown considerably since the late 1960's. There was a 146% increase in population between 1970 and 1980, and an eighty percent-increase between 1980 and 1990 (Nags Head Board of Commissioners 1992). Table 3.3-1 depicts population figures for Nags Head over the last century.

**Table 3.3-1  
NAGS HEAD POPULATION HISTORY 1870 - 1990**

<b>Year</b>	<b>Nags Head</b>	<b>Nags Head Township</b>
1870	-	1,000
1880	-	1,104
1890	-	1,296
1900	-	1,884
1910	-	2,069
1920	-	1,881
1930	39 <sup>1</sup>	1,949
1940	45 <sup>1</sup>	2,547
1950	-	2,422
1960	840 <sup>2</sup>	2,760
1970	414	3,328
1980	1,020	-
1983	1,330	-
1985	1,468	-
1990	1,838	7,535

Source: Bureau of the Census 1960, 1970, 1990; Dunbar 1958; Nags Head Land Use and Land Development Plans 1964, 1972, 1985, 1990.

<sup>1</sup> Estimates from Dunbar 1958:101. The numbers are from Nags Head "village."

<sup>2</sup> Taken from an estimate in the 1964 Nags Head Economic Function and Population and Land Development Plan.

3.3.4.2 Recent and Current Population Characteristics

**Population** The current permanent population in Nags Head is 1,838 persons (U.S. Bureau of the Census 1990), an eighty percent-increase since 1980. It is important to note that these figures do not adequately describe the number of persons living in Nags Head on a seasonal basis since ". . . under existing development, peak daily population [in Nags Head] can exceed 25,000 people (Nags Head Board of Commissioners 1992:15; see subsection 3.3.4.3)."

**Age/Gender Distribution** The 1990 census enumerated 923 male and 915 female residents in Nags Head. The median age of the population was 38.5 years. The percentage of the total population under eighteen years was about sixteen percent. The percentage of the total population over sixty-five years was roughly fourteen percent. One notable change in the local population between 1980 and 1990 was the number of persons over eighty-five. In 1980, four individuals were over eighty-five whereas in 1990 there were forty-seven (Nags Head Board of Commissioners 1992:8).

**Ethnicity** The population of Nags Head is ethnically homogeneous. The 1990 census counted 1,773 Caucasians, forty-eight African-Americans, fourteen Asian or Pacific Islanders and ten persons of Hispanic origin of any race.

**Household Characteristics** The 1990 census counted 768 total households in Nags Head. There was an average of 2.24 persons per household. Table 3.3-2 depicts additional household information for Nags Head for the 1980 and 1990 census years.

<b>Table 3.3-2 HOUSEHOLD INFORMATION: NAGS HEAD</b>			
Census Category	1980	1990	% change
Total Number of Households	436	768	76.1
Average Number of Persons per Household	2.34	2.24	-4.2
Percent of Married-couple Families	60.32	54.47	-9.7
Percent of Male Householder Families	1.83	2.78	51.9
Percent of Female Householder Families	6.42	11.43	78.0
Percent of Non-family Households	31.42	31.32	-.3
Percent of Householders Sixty-five or Older	17.66	12.26	-30.6
<b>Source: U.S. Bureau of the Census</b>			

**Housing Information** The 1990 census counted a total of 3,117 housing units in Nags Head. A large percentage of these were unoccupied, suggesting seasonal occupation (see Table 3.3-3).

<b>Table 3.3-3 HOUSING INFORMATION 1990: NAGS HEAD</b>		
<b>Type of Unit</b>	<b>Number of Units</b>	
	<b>Median Value/Rent month (\$)</b>	
	1990	1990
Total housing units	3,117	--
Owner-occupied units	526	121,900
Renter-occupied units/vacancy rate	242/82.2	474
Mobile homes	75	--
Vacant housing units	2,349	--
Units vacant for seasonal use	955	--
<b>Source: U.S. Bureau of the Census</b>		

### 3.3.4.3 Seasonal Variation in Population

While Nags Head has been occupied on a year-round basis since its founding, it also has a long history as seasonal resort destination. Most of the spring, summer and fall months, however, are characterized by mild weather and are popular times for tourism activity. The peak visiting season is summer, because school is out and the seashore offers a relatively cool climate in which to vacation. The permanent population is dwarfed by the visiting population during peak season (see Table 3.3-4).

<b>Table 3.3-4 PERMANENT/PEAK VISITING POPULATIONS 1985-1995: NAGS HEAD</b>			
<b>1985</b>	<b>1987</b>	<b>1990</b>	<b>1995</b>
1,468/21,900	--/24,600	1,838/30,000	2,602/40,500
<b>Source: Booz, Allen, and Hamilton 1986; Town of Nags Head 1992</b>			

#### 3.3.4.4 Local Population Issues

The dramatic seasonal change in population in Nags Head has considerable implications for the social and cultural landscape of the town and for the priorities of local government, local businesses and other concerns. These implications notwithstanding, recent development and associated change in the social structure of the permanent population have greatly affected the character of Nags Head.

According to the 1990 census findings, approximately two-thirds of Nags Head's permanent population are not native North Carolinians. In the Luman study, approximately two-thirds of the non-resident visitors were from five states; Virginia (38.4%), Pennsylvania (10.8%), Maryland (8.0%), New York (5.0%) and Ohio (4.5%) (Luman 1990:A-3). While no data were available for original state of residence for the permanent population, many informants mention the same states noted in Luman's study (1990), and New Jersey, as their place of residence prior to Nags Head.

#### 3.3.5 **Economic Characteristics**

##### 3.3.5.1 Economic History

Nags Head has over a century-long history as a seasonal resort community. The building boom which began in the late seventies and continued through much of the eighties was accompanied by increase in seasonal visitors and tourism. Native North Carolinians visiting Nags Head predominantly hail from the northeastern part of the state, particularly the Elizabeth City, Ahoskie and Edenton areas. The road system makes visiting the Nags Head area easier for northeastern North Carolinians and southeastern Virginians, than for residents from central or southern North Carolina where it is easier to travel to the state's central and southern beaches. Since the early 1800's major property owners and visitors to Nags Head have come from the northeastern part of the state, and, increasingly, states in the Northeast U.S.

For a large portion of the year, Nags Head's permanent population of just over 1,000 lives within a sea of vacant housing units, shops, and restaurants. They drive along a main road built to accommodate a population twenty times its size. And they drink water from a water system built to serve a daily population of over 20,000 people. In the summer, the town is inundated with a transient population whose needs are met by a physical infrastructure built for their benefit. Local businesses have adopted various strategies to survive the seasonal economy. A business must create a special niche to make it on the beach. This has not always been the case for local businesses. In the 1980's, "everything you tried to sell sold, and everything you built sold." Today, however, chain businesses, particularly new K-Mart and Wal-Mart department stores are forcing small retail stores to re-evaluate their focus. Chain grocery stores and pharmacies are also making a large impact. "Local businesses that

are creative and can withstand the seasonal fluctuations in the economy may outlive a large chain business that has an inflexible bottom line," said one local business person.

Currently, outside business interests are capitalizing on the area's economy. An "outlet" mall in Nags Head, for instance, has several stores whose revenues go to companies outside of Nags Head. In the words of the town's Board of Commissioners (1992:45):

"For Nags Head, the question is how to best manage the commercial services needed to accommodate its increasing seasonal population while at the same time providing adequate levels of amenities for residents."

### 3.3.5.2 Local Business/Industry

**Tourism Services** Tourism is the principal source of revenue in Nags Head. Most businesses are tourist-oriented and geared toward seasonal activity. These range from food service and marine-related facilities to small craft shops and shell shops. The Outer Banks Chamber of Commerce reports that "existing development includes over 5,000 restaurant seats, nearly 760,000 square feet of retail structures, and over 380,000 square feet of service establishments along with offices and warehousing. (Outer Banks Chamber of Commerce 1992).

The major categories of services available to tourists include dining, bar and nightclub facilities, rental services of water sports and beach equipment and various other sundries, general retail services and shopping malls, public beach accesses with parking and in some instances bath houses with showers and bathrooms, hotel/motel and cottage services, and general amusement centers such as video game centers and miniature golf-courses.

Nags Head prides itself on its "family-beach atmosphere." Nags Head's building code restricts high-rise hotels and condominiums. One of the strongest businesses is the cottage rental business. Changes in the real estate market have brought a new up-scale rental market with lavish houses and luxury services. Still, most rentals remain the traditional "beach box."

**Commercial and Recreational Fishing** Unlike many other communities along the Outer Banks, commercial fishing has never been an economic mainstay for Nags Head. Nags Head, with a permanent population nearly five times the size of nearby Wanchese, had only eighty-four commercial fishing license holders in 1991, while Wanchese had 219 during the same year.

The 1992 DMF commercial fishing license data reports that over eighty commercial licenses were sold to Nags Head residents. Several persons bought multiple licenses. According to local fishermen, approximately twenty-five people fish commercially on a full or part-time in



Nags Head. One local fisherman reports that closer to ten Nags Head residents fish full-time, six to seven fish part-time, two to three "fish off the back of the beach" (beach haul-seining), and four or so are netters who fish in the sound. The majority of these commercial licenses are held by sportsfishermen who need a commercial license to sell their catch or by recreational charter captains who take out passengers to fish in the ocean. The same fisherman reports that the number of commercial fishermen in Nags Head has declined steadily over the years, and the fishermen suggest that increased regulations have forced some out of business.

Most commercial fishermen in Nags Head own property on the water and can access the water from there. Others keep their boats in Dykster's Ditch on the southwest side of the causeway across from Pirate's Cove, or dock their boats at the fish house where they sell their catch. The fish dealers give the fishermen free docking in return for the opportunity to purchase the catch.

The two or three crews that work the beach haul seines comprise the majority of commercial fishing activity that takes place in Nags Head. Due to the recent controversy between commercial and recreational fishermen on the beach, commercial fishermen have become very sensitive about the issue. A local fisherman says that sport fishermen do not understand certain things about commercial fishing and Nags Head beaches. First, Nags Head beaches are considered the best for haul seining because of the quality of the sand. Second, there is an unwritten rule in commercial fishing that the first person in the area of a haul has rights to that set. If sportsfishermen come on a beach crew ready to make a haul, then it is the commercial fishermen who have the right to the fish.

***Marine-related Business/Industry*** A variety of marine-related business and industry serves the Nags Head area. These includes tackle shops, seafood markets, fishing piers, marine construction businesses, surf shops, recreational businesses and shops catering to diving and windsurfing. Bait for fishing can be found at tackle shops and seafood markets. There are four seafood markets, five tackle shops, three fishing piers, two marine construction companies, five surf shops, a dive shop and seven businesses that offer various maritime recreational opportunities. One shop provides equipment for windsurfing, surfing and kayaking and also offers lessons in these sports.

Nags Head is also located near Oregon Inlet Fishing Center which is a major recreational fishing center in the region. National Park Service concessionaire records report that August was the peak month for charter trips out of the Center. Some 837 trips carrying over 5,000 people were made during that month. Fifty head boat trips were made during the same month carrying 1,778 persons to sea. In May, 516 charter trips were made carrying 3,096 persons, and eighteen head boat trips were made carrying 400 persons. In November, 138 charter trips were made carrying 828 persons, and no head boat trips were made. Oregon Inlet has a total of fifty-five slips. At least six of these are transit docks reserved for overnight boaters. In early spring 1993, there were thirty-five inshore and offshore charter boats operating at Oregon Inlet Fishing Center. One head boat operates out of the facility.

This vessel can carry forty-nine passengers, the captain and two mates. Charter boats typically carry smaller fishing groups of up to six passengers, the captain and a mate. Between three and five charter boat captains operating out of this fishing center live in Nags Head.

**Food Services** The food service industry is a vital part of the local economy in Nags Head, particularly during the summer months, since activity within this service sector fluctuates with seasonal population. There are a total of thirty-nine restaurants in Nags Head with a combined seating capacity of 3,581. There are also fifteen food-and-drink stands in Nags Head and numerous restaurants in the nearby communities of Kill Devil Hills (4,706 total seats) and Kitty Hawk (1,042 total seats) (Outer Banks Chamber of Commerce 1992). Although most of the food-service businesses are most active in the warmer months, a small number of facilities do stay open throughout the year and provide service to the permanent population and off-season visitor.

**Lodging** According to the Outer Banks Chamber of Commerce (1992), there were twenty-eight hotel or motel facilities in Nags Head. These facilities contained a total of 1,206 units. Meanwhile, nearby Kill Devil Hills and Kitty Hawk had a combined total of thirty-two facilities with 1,538 units.

**Medical Services** Britthaven Nursing Home is located in Nags Head. This facility maintains 144 beds, of which 135 were in early 1993. According to administrators, sixty-seven percent of persons using the facilities last year were from Dare County.

Dare County does not have a hospital. However, the county has assumed responsibility for emergency medical services, and emergency cases are flown by helicopter or transported by ambulance to hospitals in Chesapeake, Virginia, Elizabeth City, North Carolina or Norfolk, Virginia. In addition to these emergency services, Nags Head residents are served by the Outer Banks Medical Center located in Nags Head, which operates twenty-four hours a day and is affiliated with Chesapeake General Hospital in Chesapeake, Virginia. Within Nags Head, there are also eight dental offices, including an orthodontist and a periodontist. Nags Head has five resident medical doctors, two podiatrists and one ophthalmologist. There is also an office offering counseling services.

Nags Head residents also have access to medical facilities outside of their town. These include the Regional Medical Center in Kitty Hawk, which is affiliated with Albemarle Hospital in Elizabeth City, North Carolina. There is a medical center in Hatteras with two doctors, two private practices on Roanoke Island, and a medical office in the Marketplace in Southern Shores which is affiliated with Chesapeake General Hospital. Specialists from Chesapeake come to the office in Southern Shores to see patients.

**Construction** The rapid development of the Nags Head area was a boon to local and regional development and construction enterprises during the 1970's and 1980's. 1977 appears to have marked the beginning of this ten-year period -- 130 units were constructed

during that year. Construction appears to have peaked in 1986 when a total of 257 units were built. Although construction remains an important economic activity and job source, housing starts have waned in the last four years. By 1990, only eighty-five units were built - ninety units fewer than the previous year. The trend of diminished building activity continues into the mid-1990's.

Issuance of building permits were at their lowest during the recession years of 1982 and 1991. Two years prior to these recession years, building permits were almost at their highest; in 1980 thirty-nine permits were issued, and in 1989 forty permits were issued. In 1993, forty-four permits were issued, matching the first quarter figures for 1988, which Nags Head considers its residential building boom period (Coastland Times 1993:6d). During this same period, Nags Head issued only one commercial construction permit, illustrating the town's policy to encourage residential over commercial construction.

While the number of permits issued has gone up and down over the years, the value of the permits -- that is, the cost of the construction or homes being built -- has steadily increased. This trend suggests a process of gentrification. As one local builder put it, "palaces are being built, not beach shacks anymore." One local contractor said that people in the industry are happy again and getting very busy.

*Other Industries/enterprises* The majority of businesses in Nags Head are involved in retail sales. One industry which has gained in importance in recent years is manufacture and sale of surfboards and sail boards. A number of small manufacturing operations have enjoyed success in local and regional markets. However, retail shops which sell these, brand name surf and sail boards and a wide variety of accessories, have proven especially successful, particularly as clothing sales have skyrocketed. The summer months are a particularly profitable season for these businesses.

### 3.3.5.3 Local Employment

The job market in Nags Head is easily summarized: "A lot of low-skill or no-skill jobs at low wages are available during the summer, and far fewer of these jobs are available in the winter." Nags Head's job hunters search for well-paying jobs during the summer and any paying job during the winter. If people can not find work in the winter they may seek unemployment, move to another resort area, or take a vacation (if they can afford to). A member of the local business community remarked that the number of low-skill, low wage jobs in the area actually outnumbered the number of persons in the market for those jobs. Yet the lack of winter jobs in the winter is still a major issue for local residents. One resident noted, "the job market around here is fickle. It's frustrating to have five job opportunities in the summer and none in the winter." The job market is further diminished by a lack of professional, management and middle-management opportunities. Many of the businesses are tourist-oriented and positions within them do not require any professional training. Many

businesses are owner-operated and do not require management or middle-level management positions.

The lack of full-time work or well-paid jobs lead Nags Head residents to develop creative economic solutions. The retired and wealthy may live off investment income. Married couples may seek a job for one spouse for the security and benefits, while the other starts a small business or accepts some other type of part-time or full-time work without security and benefits. Many residents take additional jobs during the summer. For example, owners of businesses will double or triple the number of hours they work during the summer to "make up" for the winter.

These strategies place a great deal of stress on individuals. Many who can adjust to the inconsistent and seasonal cash flow move from the area. High school students may be the only population segment which, relatively speaking, benefits from this situation built on summer job opportunities.

***Public Sector Sources of Employment*** Public sector employment within Nags Head's boundaries are limited, although many Nags Head residents work in the public sector outside of Nags Head. Public-sector sources of employment include the school system, town government and services, county government and services, state and federal agencies such as the State Marine Fisheries, and National Park Service. Other public sector jobs include employment with the Alcoholic Beverage Control facility, Adult Parole Department in Nags Head, the Aquarium on Roanoke Island and the National Sea Grant College Program located at the Aquarium.

The Town of Nags Head has eighty-four year-round staff and one part-time staff member. Almost ninety percent of the town staff reside in the beach area between the Wright Memorial Bridge and the Washington Baum Bridge (i.e. the Kitty Hawk, Kill Devil Hills, Nags Head area) and Roanoke Island (i.e. Manteo and Wanchese). Seventy percent of the staff come from the beach area between the two bridges. The town has a seasonal staff of twenty-eight made up of seventeen part-time lifeguards, ten part-time sanitation workers and one part-time animal control officer.

The Town of Nags Head is a major employer in the area. Due to high turnover rates, forty-six persons worked part of last season in the town's budgeted twenty-eight seasonal openings. Over fifty percent of these workers came from outside the beach and Roanoke Island region, illustrating the regional importance of the beach area as an employment opportunity.

***Private Sector Sources of Employment*** The 1992 Nags Head tax records show over 430 businesses located in Nags Head. Jobs associated with these businesses fall into five general categories: retail sector employment, office-related jobs, restaurant-related work, construction and related fields, such as plumbing and electrician work, and hotel/motel/cottage work. The majority of jobs are available in the retail sector, with restaurant and hotel work ranking second, and construction and related jobs ranking third. For the most part, the retail,

restaurant and hotel jobs are seasonal. Construction work and office jobs tend to be year-round positions.

#### 3.3.5.4 Seasonal Variation in Local Economy

As noted earlier, Nags Head experiences a dramatic, seasonal variation in local economic activity. Businesses typically open for limited activity soon after Easter weekend, when spring weather makes visiting the beach an attractive possibility. The warm summer months and school vacations contribute greatly to summer activity at the beach. The early fall months are also very active along the Outer Banks including Nags Head. Excellent fishing keeps tourism at high levels until the late fall weather deteriorates. Recently, the Dare County Tourist Bureau has been promoting tourism for the cooler months.

#### 3.3.5.5 Local Economic Issues

Perhaps the biggest local economic issue for Nags Head is the need to protect those aspects of the environment which draw tourists to the area while simultaneously maintaining growth. This problem was addressed by a local government administrator who compared the situation for his community with an inland one he considered less dependent on a healthy natural environment:

"if they pollute the Tar River they [Greenville] are going to survive and have economic health. My point is that here if we pollute the ocean or we pollute the sound, or we destroy the natural resources, then we are not going to get the people coming in and spending money. And we are going to have a very difficult time."

Deeper analysis suggests, however, that the problem is not merely environmental change from external sources, but that resulting from tourism in the community itself. Supporting a tourist population requires changes to the landscape. For instance, asphalt must be laid for parking, condominiums are built on the beach for housing, golf courses change the landscape for the sake of recreation. Thus, while clean beaches, water and air are important factors for attracting visitors, the visitors themselves are partly responsible for problems in these resources. Indeed, while tourists may value a "healthy" or "clean" coast, they also value amenities that may detract from these qualities. Some local planners are aware of this problem and seek a balance between promoting tourism and regulating environmental problems that accompany it.

Another important economic issue *is* seasonal variation itself. In summer there are enough opportunities to support a large number of workers. Although summer brings opportunity, it also brings problems that arise with increased commercialization, such as traffic congestion

and noise. The difficulties associated with rapid change are perhaps compounded in Nags Head because of the mixture of land uses and the close proximity of residential and commercial properties. Although planners have taken steps to reduce summer problems, these have the potential to diminish the attractiveness of the area for tourism.

### **3.3.6 Locally Active Governmental Institutions and Services**

#### **3.3.6.1 Government History**

Except for a brief period in 1923, Nags Head was unincorporated until 1961. Dare County provided government and government services until that time. In 1961, Nags Head organized a system and charter for self-government. This included the election of a local Board of Commissioners. The town mayor was selected from among the commissioners.

#### **3.3.6.2 Federal Government Institutions**

A National Park Service information center is located at Whalebone Junction in Nags Head, and the Park Service Maintenance Facility is located just south of South Nags Head. The Whalebone Junction Information Center is staffed by a person from the NPS National Seashore office in Manteo.

The Bodie Island Maintenance Facility of the Cape Hatteras National Seashore is located just south of Nags Head. The maintenance division employs fourteen full-time employees, seven part-time employees and two seasonal workers. The facility is responsible for the North District of the National Seashore, whose boundaries extend from Bodie Island to Salvo. The maintenance division works closely with the Town of Nags Head on cooperative projects and during crisis situations. The town recently purchased special materials to make access to the beach by heavy equipment possible at the southernmost beach access in Nags Head. The facility installed the materials at the access.

The Nags Head postal service has one part-time and five full-time employees. The post office currently has 1,500 post-office boxes; 1,300 are currently in use. Areas located on the current rural route in Nags Head receive home delivery. Currently, 450 homes receive this service. People in Nags Head who are not on the rural route may petition the post office to receive this service. The service is provided free of charge by the U.S. postal service. The rural route in Nags Head extends to Oregon Inlet Fishing Center and the Coast Guard Station at Oregon Inlet.

### 3.3.6.3 State Government Institutions

A number of North Carolina Division of State Parks employees work at Jockey's Ridge State Park. The park employs four full-time staff, including a Park Superintendent, two Park Rangers and a maintenance mechanic. One part-time employee and four seasonal employees also work for the park. The seasonal employees include two assistant park rangers, one park attendant, and one general utility worker. The superintendent and the rangers live in Nags Head, the mechanic lives in Manteo. In summer of 1992, volunteers handled the seasonal work, but this year funds are available to support seasonal staff.

The DMF plays an important role in regulating recreational and commercial fisheries in the Nags Head area. When the town or its residents are involved in mitigating a fisheries dispute in an area under state fisheries jurisdiction, the DMF will provide assistance.

### 3.3.6.4 County Government

Although Nags Head is incorporated, the county still provides service and assistance to the town, and several county agencies are directly involved in community affairs. The Nags Head Police Department works very closely with the County Sheriff's Department. When the town needs help or mutual assistance, the sheriff's department often responds. The Nags Head Public Works Department transports solid waste to the Dare County Public Works Department. Dare County then transports the waste to the county landfill. The Nags Head Fire Department helps Dare County EMS with life-threatening, first-response calls. The county agency, in turn, assists the local fire department.

### 3.3.6.5 Community Government

***Mayor/Board of Commissioners*** Nags Head is governed by a mayor who was formerly elected by the Town Board of Commissioners from their ranks for a two-year term. In the November election of 1992, the town voted to drop this system and to have the citizens of Nags Head elect the mayor directly.

Nags Head's Town Board of Commissioners are elected for four-year staggered terms. Currently, there are five Board members — two women and three men. They meet once a month at the Nags Head Municipal Complex (League of Women Voters of Dare County 1992:9).

***Planning and Development*** Nags Head has a Town Manager, a Town Planning and Development Department and a Board of Adjustment. The Town also has a Planning Board appointed by the Board of Commissioners for three-year terms. The Board meets once a

month at the Municipal Complex. The Board currently has seven members (League of Women Voters of Dare County 1992:9).

**Law Enforcement** Nags Head has a well-staffed law enforcement department. The goal of the police department is to provide public protection service through a comprehensive law enforcement program. The department currently employs fifteen sworn officers and three civilian personnel. Nags Head Police Department currently employs sixteen sworn officers and three civilian persons. One of the civilians is the animal control officer, and one part-time assistant animal control officer works from mid-May until Labor Day each year. The department maintains twenty-six vehicles, including an all-terrain bike used for the beach and an emergency response vehicle used as a mobile command post in times of emergency.

There were 5,508 calls and complaints recorded for 1992. During 1992, 668 citations and arrests were made. The types of activities that resulted in citations were minor violations, such as surfing near a pier or driving on the beach. Arrests were made for more serious violations such as assaults or theft. Traffic arrests totaled 1,334 in 1992 and 1,152 warning tickets were issued. The number of calls and complaints received by Nags Head Police Department increases during the summer months as the population increases. The categories of complaints that increase the most during the summer months are traffic violations, assault, larceny, burglary, vandalism/property damage, ABC violations, disturbances and investigating suspicious persons. During the winter months, the most common calls and complaints are traffic, assistance for another agency, burglary, driving on the beach, and general police calls.

Nags Head has a Mutual Aid agreement with all existing law enforcement agencies in the region. If an officer needs assistance, the officer calls Dare Central and requests mutual assistance. Dare Central dispatches the request to a single agency or town police department, or it may issue a blanket Mutual Aid call. Agencies and officers outside their jurisdiction must receive a mutual aid call to meet insurance and liability restrictions on their actions. Kill Devil Hills Police Department and the Dare County Sheriff's Office provide the most assistance to the Nags Head Police Department. The Nags Head Police Department also works closely with the Highway Patrol, particularly on issues dealing with the Manteo-Nags Head Causeway and NC-12 south of Nags Head.

**Fire Prevention and Suppression & Emergency Medical Services** For fire prevention/suppression and emergency medical services (EMS) the town of Nags Head hires six career firefighters, a Fire Chief, a Deputy Fire Chief, an Ocean Rescue Supervisor, one part time receptionist and seventeen part-time lifeguards. Nags Head has a volunteer fire department as well.

This department has five fire engines, one ladder truck that can reach 105 feet, three ocean rescue vehicles (four-wheel drive pickups), one Zodiac boat (sixteen feet), four jet skis, one brush truck (a four-wheel drive pickup with a water tank in back) and two chief officer vehicles.



The Nags Head Fire and Rescue Department has three stations in Nags Head. One station across from Town Hall is manned twenty-four hours by paid career firefighters. Another station close to Jockey's Ridge is manned by volunteers but has sleeping and cooking facilities. The third station is located in South Nags Head and is not manned but houses one fire engine.

Nags Head Fire and Rescue Department has Automatic Aid Agreements with Colington, Kill Devil Hills and Roanoke Island. If Colington or Kill Devil Hills has a structure fire, Nags Head Fire Department automatically responds. If Nags Head has a structure fire, Roanoke Island and Kill Devil Hills automatically responds. Nags Head Fire and Rescue aids Dare County EMS by responding to life-threatening, first-response calls. The Ocean Rescue Division provides services to Southern Shores and Kitty Hawk. In 1992, there was no loss of life due to drowning. The department attributes its successes to the Pre-Incident Survey and Training Program in which businesses are evaluated for "potential dangers, hazardous materials and preferred suppression tactics" (Fuller 1993:11). During 1992, the department held fifty-four in-house training sessions. Firefighters also attended thirty-nine outside sessions. Nags Head does not have EMS. Residents must call Dare County Emergency Medical Services.

***Public Works*** The Town of Nags Head maintains a Department of Public Works which has a total of twenty-seven full-time and ten seasonal positions. This department has six divisions: Public Buildings and Grounds, Sanitation, Street, Water Distribution, Administration and Maintenance Garage. The Public Buildings and Grounds Division has three full-time employees and three pickup trucks and is responsible for cleaning and maintenance of forty-one beach and sound accesses, landscaping and general cleanup especially after storms. The Sanitation Division has ten employees and is responsible for the commercial and residential refuse pickup in Nags Head. It also operates a voluntary recycling program. The Street Division has four employees and is responsible for ditch maintenance, pothole patching and sign replacement. They also cooperate with the Buildings and Grounds Division to remove sand from beach accesses after storms and to inspect streets in new subdivisions to insure compliance with the Town of Nags Head's standards (Fuller 1993:13). The Water Distribution Division has five full-time employees and is responsible for meter reading, the maintenance of water lines and the installation of new water lines. The Maintenance Garage employs three full-time mechanics and is responsible for the general upkeep of town vehicles. The Administrative Division has two employees: the director and a secretary.

***Education*** No schools are located in Nags Head. Children attend First Flight Elementary and First Flight Middle School in Kill Devil Hills, then continue their education at Manteo High School in Manteo. Some children living on Pond Island, located on the causeway between Manteo and Nags Head, have waivers allowing them to attend Manteo Elementary and Manteo Middle School.

***Social Services*** Residents are served by Dare County Social Services. According to the county's social service department, Nags Head residents receive little social service assistance, especially services such as food stamps. The exception is Medicaid. Two million dollars in medicaid payments were distributed through the Brithaven Nursing Home in Nags Head during 1992.

***Cultural and Recreational Services*** The Town of Nags Head does not maintain recreational facilities. Dare County does maintain six tennis courts in Nags Head. Although the town owns 400 acres of Nags Head Woods, the two miles of jogging and walking trails within the town-owned portion of Nags Head Woods are maintained by the Nature Conservancy. The recreational emphasis of the Town of Nags Head is on access to the ocean and, to a lesser extent, access to the sounds. Nags Head has emphasized improved shoreline access and is considering development of non-shoreline activities. Currently there are thirty-eight ocean access sites, and three sound access sites in town. Other recreational opportunities in and around Nags Head include a privately-owned golf course, and state and federal properties such as Jockey's Ridge and Cape Hatteras National Seashore to the south.

The town hopes to develop such non-shoreline recreational facilities as bike trails, picnic shelters and playgrounds. The N.C. Division of Parks and Recreation Standard provides guidelines for numbers and types of recreational facilities needed by population size. Based upon this standard, by the year 2000 Nags Head would need numerous facilities. Land is scarce, however, and shore-based recreational opportunities are abundant. North Carolina standards thus do not necessarily apply here. In addition, a 1989 recreation survey showed that Nags Head citizens did not feel that ball fields, tennis courts and swimming pools were important concerns, although they did support the development of playgrounds and a community center (Town of Nags Head 1989:23).

The closest libraries are Manteo and Kill Devil Hills. These are branch facilities of the Dare County library system and are open to residents of Nags Head. The closest to Nags Head, the Kill Devil Hills Dare County branch, has three staff, a branch librarian and 10,000-15,000 thousand volumes.

One important issue for Nags Head community government is how to preserve/promote development that matches some of the architectural style of the area. Gallery Row and the Nags Head Beach Cottage Row District are examples of local government efforts to preserve local history. Twenty-seven of the cottages in the beach cottage district are on the National Historic Register. The entire district includes some sixty cottages.

### 3.3.6.6 Local Governmental Issues

Commercial and recreational fishermen recently confronted one another during the fall bluefish season. Recreational bluefish fishing involves fishing from the beach with hook and line. Commercial bluefish beach haul seining involves encircling the fish with a net from a beach-launched boat and returning to the beach to haul in the fish. The conflict arose over access to the resources. The DMF assisted Nags Head in finding a solution to this problem by "zoning" the beach. Commercial and recreational fishermen will now be allowed to fish from certain areas of the beach only during certain times of the year.

Recreational fishermen called the Nags Head's board of commissioners attention to an issue within state jurisdiction --menhaden fishing off Nags Head beaches and its impact on the area's recreational fishing. DMF held public hearings in the area and attended local and county board of commissioner meetings to suggest compromises to the situation.

Another issue involves consolidating some beach towns around Nags Head. Rather than having several small towns duplicate services to their residents, they would be "consolidated" across town lines. Many people and politicians feel that certain services could withstand consolidation and that taxpayers money would be saved. Town managers and those who handle town finances, however, do not necessarily feel that consolidation of services would save money.

### 3.3.7 **Physical Infrastructure and Land Use**

#### 3.3.7.1 Infrastructure History

Key events in the history of Nags Head include the opening of the Wright Memorial Bridge in 1930, the Roanoke Sound Bridge in 1928 and the construction of an asphalt road in the town in 1931. Each of these events simplified travel to, from, and within the community and furthered the reputation of Nags Head as a resort community.

#### 3.3.7.2 Public Sector Facilities

***Marine Facilities*** There are no large marine facilities in the Nags Head, largely because the town has never been a fishing center. The Oregon Inlet Fishing Center on the south of town is a seasonally popular destination for visitors who charter vessels for offshore fishing trips. The Nags Head land use plan does not allow for development of marinas with more than ten slips. No public marinas exist in the town, and it has no public boat ramps. Two access points are used by windsurfers to access Roanoke Sound. One of these accesses may be used to launch boats, but the town limits the size of boats to under sixteen feet.

**Transportation System** Nags Head's two main roads are the "bypass," also known as Croatan Highway or U.S. 158, and the "beach road," also known as Virginia Dare Trail or State Route 12. Virginia Dare Trail is the original road built in the area (1931) and has two lanes. The bypass was completed in 1959. In the last few years, the bypass has been widened to five lanes. Modifications to it are still underway.

Whalebone Junction in Nags Head is being improved for travel to and from Cape Hatteras National Seashore to the south, the Manteo causeway to the west, Virginia Dare Trail to the east and the bypass to the north. The Manteo causeway, connecting Manteo with Nags Head via the Washington Baum Bridge, is also being improved. The span from Manteo to the bridge is being widened to four lanes, as is the remainder of the causeway to Nags Head. The future of the Daniels Bridge, a small bridge between the Baum Bridge and Nags Head and a favorite fishing spot among locals and summer visitors, is uncertain.

Five bridges have a major impact on the transportation system of Nags Head. The Alligator River Bridge and the Croatan Sound Bridge simplify access from the mainland. The Washington Baum Bridge is a four-lane bridge in Nags Head which allows access to and from Manteo. The Wright Memorial Bridge in Currituck County brings traffic from the Currituck mainland to and from Kitty Hawk and Southern Shores. The Bonner Bridge spanning the Oregon Inlet allows easy access to points south.

The bridges are also the hurricane evacuation routes, a reason used to justify new bridges and to widen existing ones. The Wright Memorial Bridge will have an additional two-lane bridge built next to it in the upcoming years for this reason. New bridges or widening of old bridges will simplify and expedite travel to the Outer Banks and will thus have an impact on Nags Head.

A major issue is road flooding during storms, particularly Northeasters. Road flooding is caused by drainage problems and ocean overwash. Travel is sometimes impossible along the Virginia Dare Trail during stormy months.

No public transportation facility serves the Nags Head area. Taxi service does exist.

**Water and Sewer System** Nags Head, Kill Devil Hills and Dare County have established a Regional Water System. Each is entitled to a set amount of water from the total system capacity. Three sources of water are used to supply the system: the aquifer under Roanoke Island (accessed by the Skyco Plant in Skyco on Roanoke Island), Fresh Pond (located in Nags Head and Kill Devil Hills) and the Reverse Osmosis (RO) Plant in Kill Devil Hills. This plant supplies almost a third of Nags Head's water. Nags Head's allotment from the regional water system is 3.3 million gallons per day (MGD), or 2300 gallons per minute (GPM). Of this allotment an estimated 2.2 MGD are already committed to existing development, leaving 1.1 MGD for future development. Based on the 1985 to 1990 growth rate, existing water sources may be adequate for the next twenty years. However, the Baum

Tract well field in Kill Devil Hills supplies the Reverse Osmosis Plant with its water. Water quality is reportedly deteriorating and demand is increasing. With present changes in water quality and demand levels, the report suggests that substantial changes will be necessary for the Reverse Osmosis plant by late 1997. Another one MGD may be obtained by adding another reverse osmosis module at a cost of \$1,000,000.

A major problem with the existing water system is saltwater intrusion. It is believed that the alignment of the wells perpendicular to the coast may have caused increased intrusion into the well system and that development of new wells, in a linear arrangement parallel to the coastline, is the best solution to the problem.

The town's predominant method of sewage treatment is septic tanks. Several package treatment plants have been built to accommodate the needs of high-density development in the town. The town presently does not view the installation of a public sewage system as economically sound or consistent with desired levels of density (Nags Head Board of Commissioners 1992:43-44).

**Solid Waste Disposal** Nags Head uses County solid waste collection for disposal of its solid waste. Nags Head deposits the garbage at a central county transfer point on Roanoke Island. The County picks up the garbage and disposes of it at the East Lake landfill on the mainland. The existing county landfill is expected to reach capacity within several years (Nags Head Board of Commissioners 1992:59).

**Energy** North Carolina Power provides electricity to Nags Head. The office serving the town is located in Manteo. About seventy-nine percent of all occupied housing units have electricity (U.S. Bureau of the Census 1990).

**Communications** Phone service is provide by Carolina Telephone Company. Over ninety-six percent of all occupied housing units in Nags Head have phone service.

### 3.3.7.3 Land Use Patterns

Land use patterns in Nags Head have changed dramatically during the last twenty years. Since 1970, Nags Head, in conformity with CAMA regulations, updates its land use plan every five years. The wide variety of topics discussed in the 1992 Land Use Plan are a good indication of the pertinent issues associated with land use: assessing and managing growth and development pressures in Nags Head; shoreline management; hurricane and coastal storm hazard mitigation; traffic and transportation; water quality; water and sewer services; economic development; visual and aesthetic resources; and recreation and open space.

The possibility of reaching "maximum buildout" or development saturation is an important issue in Nags Head. There is, however, considerable potential for further development in the area. Of the 4,600 town acres, 1,953 acres of plotted lots are undeveloped. This

acreage is considered suitable for development and serviceable by septic systems. This translates to a possible further development of 3,512 dwelling units in Nags Head (Nags Head Board of Commissioners 1992:11). These figures reflect land potentially suitable for development. The availability of water or conservation decisions may ultimately constrain total development of available land.

***Land Ownership*** The 1990 Nags Head Land Use plan reports 4,600 total acres (Nags Head Board of Commissioners 1992:9), and the Nags Head Draft of the Capital Improvement Plan reports 4,251 total acres (n.d.:6). Using the Capital Improvements Plan numbers, seventy-five percent of the land in Nags Head is developable. Twenty-five percent of this acreage are non-developable due to some environmental regulation. Forty-two percent of the developable acreage were developed in 1988. The Nags Head Planning Department suggests that approximately sixty percent of the town's developable acres are now developed and forty percent of the acreage remain undeveloped. A majority of the 1,075 unbuildable acres in Nags Head is part of Nags Head Woods Ecological Preserve and Jockey's Ridge State Park.

The largest amount of developed acreage in Nags Head are composed of single-family and duplex residences; the smallest amount of developed acreage is occupied by multi-family residences. Single-family and duplex acreage accounted for forty-seven percent, government owned land accounted for twenty-nine percent, commercially-owned acres accounted for fifteen percent, hotel acreage accounted for six percent, and multi-family accounted for three percent of developed land.

***Zoning and Land Use*** Zoning is a critical issue for Nags Head. The juxtaposition of residential and commercial uses has created a climate of competition for existing land. According to the 1990 Nags Head Land Use Plan (Nags Head Board of Commissioners 1990), approximately thirty percent of the undeveloped land is in residential zoning districts, and eighteen percent of the land is in commercial districts.

***Hazard Areas*** Nags Head's three significant hazard areas are flood zones, ocean A.E.C. and incipient inlets. Due to the possibility of severe storms and hurricanes and the low-lying nature of the area, Nags Head is extremely vulnerable to flooding. Virginia Dare Trail, also known as the beach road, and Whalebone Junction are flooded several times a year as a result of ocean overwash. The Whalebone Junction area is also an incipient inlet, as are two other areas in town -- the area just south of Jockey's Ridge State Park and the area just south of Outer Banks Mall. Incipient inlet areas extend from the sound to the ocean. The ocean A.E.C is a hazard area due to the frequency of rough seas creating problems on the shoreline for property and persons.

***Visual Considerations*** Nags Head spends a great deal of energy on visual considerations in town. The town isolates "the beaches and open space, and the relatively low density of its development" as the major visual and aesthetic quality of the environment that attracts visitors to the town (Nags Head Board of Commissioners 1992:50). The town's historic beach cottage district facing the ocean on Virginia Dare Trail is part of the visual and

aesthetic appeal. Twenty-seven of the cottages in this district are registered with the National Historic Register (Nags Head Board of Commissioners 1992:50).

***Land Use Issues*** Four basic land-use issues are noted in the 1984 Nags Head Carrying Capacity Study: 1) the availability of land for development, 2) waste water treatment and disposal, 3) water supply and distribution, and 4) hurricane evacuation. Hurricane evacuation is an important land use issue, given Nags Head's vulnerability. Hurricane evacuation is a consideration within all land-use planning stages.

Nags Head's 1992 Land Use Plan lists seven of sixteen policies as "high priority." High priority policies "were to be completed within four years." These include: (1) protecting the physical integrity of the estuarine shoreline; (2) protecting the integrity of ocean beach and dune system and recognize the natural processes and dynamics of the shoreline; (3) taking appropriate actions to protect the quality of estuarine and groundwater resources recognizing the interrelationships between land use and water quality; (4) protecting the visual, physical, and aesthetic qualities of Nags Head, including open space and the historic district; (5) planning for municipally owned or operated active and passive recreational areas, as well as the need for a town park and other traditionally municipally-provided recreational facilities to meet the needs of the town's residents; (6) continuing adequate, economical and environmentally-sound methods for disposal of solid waste; and (7) continuing to provide a strong citizen-participation program for the future (Nags Head Board of Commissioners 1992:map).

### **3.3.8 Social and Cultural Characteristics**

#### **3.3.8.1 Sociocultural Aspects of Community**

***Physical Appearance*** Since Nags Head has developed a large majority of its land, the physical landscape between its ocean and sound borders is not immediately distinguishable from other towns. Two distinguishing features to Nags Head are Jockey's Ridge Sand Dune System and Nags Head Woods. Sandy landscapes on undeveloped lots and homeowners who have chosen to leave their yards in natural sandy scrub and brush also distinguish the barrier island ecosystem of which Nags Head is a part.

Two major roads pass north and south in Nags Head -- the beach road and the bypass. The beach road is a two-lane road which cuts Nags Head into two parts: the oceanfront section of town on its east side and the mid-section of town on its west side. The mid-section of town are those homes between the beach road and the bypass. The bypass is a five-lane road, four lanes of traffic and a turning lane, with the mid-section of town on its east side, and the sound side neighborhoods on its west side. A third road, called the old cart path, meanders through Nags Head woods. While this road is a public access right-of-way, little traffic makes use of this dirt road. The few permanent residents within the woods, some joy

seekers, horse riders, off road bicyclists and joggers are the majority of traffic on the "cart-path."

Very few main roadways travel east and west in Nags Head. One such road is Old Soundside road, more important for its historical significance than the amount of traffic using this thoroughfare. Old Soundside road is the road that leads to the original soundside settlement where tourists first came to Nags Head in the 1800's. The major east to west roadway in Nags Head is the thoroughfare and bridge which connects Nags Head with Manteo, called the Nags Head/Manteo Causeway, or just the causeway. The causeway is also a major hurricane evacuation route.

Rental rates in town generally increase from west to east. Oceanfront homes are the most expensive. The majority of permanent residents live within sound side neighborhoods. There are no areas that are not, to some degree, affected by part-time residency. A number of part-time residential units and seasonal rental units are between the bypass and the beach road and along the oceanfront. For the most part, the shops, stores, arcades, mini-golf courses and restaurants within these areas also close down after some time in fall and re-open some time in spring.

Planned neighborhoods and townhouse and condominium complexes make up the majority of "neighborhoods" in the town. Places such as Nags Head Cove, The Villas and The Hills of Nags Head are examples of the planned neighborhoods in the area. One planned development which takes up a major portion of the landscape is The Village at Nags Head. Approximately 400 acres in size, The Village at Nags Head occupies what was the last, large tract of developable land in Nags Head. The Village extends from the sound to the ocean. Its lavish homes, golf-course, and million-dollar clubhouse on the ocean make this "neighborhood" a major part of today's landscape in Nags Head.

Development in Nags Head is controlled by strict zoning regulations and planning considerations. Single- to three- or four-story buildings dominate Nags Head. High-rises are not allowed within the town limits. Some high-rises were built prior to new zoning regulations. However they do not dominate the landscape. The dominant "look" of a Nags Head home or building is weathered wood. Beachfront homes epitomize this Nags Head "look." A series of old beachfront cottages in the middle of town set the stage for this type of "look" over 100 years ago.

Nags Head has several mini-malls and two shopping malls. These and the beach are the major focal points of activity during the summer months. Public access to Nags Head beaches is plentiful. The most crowded public access areas are those with bathhouses which have showers and bathrooms. Other crowded beach areas are around piers. Piers afford fishermen a good place to fish, they also often have the better surf breaks in the area and thus are a good spot for surfers to surf. Hotels, private homes and condominiums also have access to the beach, so while some beach areas may be more crowded than others during the



summer, there really are few stretches of beach in Nags Head that are unoccupied during the summer season.

*Living in Nags Head* A resort community's lifeways follow distinct patterns modulated by the tourist season. The daily, monthly and yearly activities of life for the youth, adults and older adults of Nags head are dictated by what "season" is currently underway. Since Nags Head has no schools, Nags Head youth travel to Kitty Hawk for elementary and middle school and to Manteo for High school. Recreational activities through the school system and the county are plentiful, and many Nags Head youth take part in these activities. "The kids might not say so," said one youth leader in the area, "but there is an awful lot for kids to do here." The same youth leader mentioned that organizations, such as the scouts, have a hard time competing with the plethora of recreational activities, especially organized sports, that are available.

Other organized activities geared toward Nags Head youth include roller skating on Fridays and Saturdays at the Worship Center in Nags Head (for primarily twelve-year-olds and younger), a variety of youth programs organized through Nags Head churches for their individual membership and after-school activities organized by the local schools. The town of Nags Head also has five movie theaters and a bowling alley. Going to the movies is a popular activity for youth throughout the North Beach area and on Roanoke Island.

The proximity to the ocean, sounds, creeks, woods and Jockey's Ridge afford opportunities for various outdoor activities including boating, fishing, hunting, windsurfing and surfing. Jockey's Ridge State Park opens up the sand dunes for sandboarding during the winter to offer youth "something to do" during this part of the year. For the nature-minded, Nags Head Woods is open three times a week for hiking.

Given these opportunities, there is plenty to do for youth in the area. While most take advantage of these opportunities throughout the year, high school youth also take benefit from the wealth of job opportunities available in the summer tourist industry. These jobs may not pay what adult breadwinners need, but they pay relatively well for young adults.

The recent past suggests that, once children leave the area to go to college, many do not return. One local high school graduate mentioned that eighty percent of her 1980 graduating class were still in the area. However, she feels that staying is on the downswing and that maybe only fifty percent of recent college graduates will return to the area. She notes that the lack of career opportunities, and the fact that students may no longer have family here contribute to this trend. Perhaps this propensity will reverse itself. Couples who moved to the area in the seventies and still live and work in the area are trying to create a sense of community based-residence in the area and family ties. Perhaps, in the upcoming years, local college graduates will return because their families are here, and because of career opportunities in their family's businesses.

Many young adults in the area typically spend their time eking out a living in the tourist industry, or trying to establish themselves in a career in the area. This group consists largely of persons who are unattached by marriage or family and have the flexibility and mobility to survive in a seasonal economy. Many were attracted to the area while attending college and have returned to the area to live and work after college. Some spend the summer here and maybe spend the winter in another resort area. Restaurant work and retail work are the major types of employment source for adults.

A third group in the area are older single adults who have established themselves in the community and have settled in Nags Head as their home. Basically, this group spends fall through spring working long hours at their businesses or holding down two or more jobs. They take advantage of the slow winter to socialize, catch up on things, or take a vacation.

Many young couples also live in town. This group closely resembles the singles group in their yearly lifeways. These couples often work long hours from fall through winter and take advantage of the summer to catch up on socializing or to take a vacation.

Young couples with children, and older adult couples with children, make up another important group in town. Many within this group came in the mid-seventies and early eighties to capitalize on the economic opportunities here and decided to settle in the area and raise families. They tend to work long hours during the fall through spring, and especially in the summer, and take it easier during the winter. This group is very active in the town. Their social life revolves around meetings with various clubs and interest groups, school activities, and their children.

Single parents also work long hours in the summer season, and less hours in the winter, but they must also take care of their children. Their activities often include taking part in activities having to do with their children.

Retirees make up the last major segment of the population in Nags Head. Nags Head has become a retirement destination for many older couples. Retirees play an important part in Nags Head. Without the constraints of work or family, retirees contribute a great deal of time sitting on boards of various groups and generally volunteering their time throughout the area. Nags Head's mayor for twelve years was a retiree to the area.

The largest population segment in Nags Head is its non-resident tourist population. Their numbers dwarf the permanent population. The majority visit the area during the main tourist season months of June, July and August. During the shoulder seasons, April through May, and September through October, a smaller group of tourists spend time in the area. While their physical influence is felt only during this time of year, their overall influence is felt year-round. Water, sewer, and electric services are all geared for the summer populations. The number of restaurants, hotels, motels, and retail shops are all geared for the tourist season. Road size and bridge construction is almost entirely geared to the number of visitors that will come to the area each year.

While most Nags Head residents' daily and yearly lifeways follow one of the lifestyle patterns, others do not. A small percentage of the population makes their living off the water as commercial fishermen or recreational charter boat captains. The commercial fishermen's daily and yearly lifeways match the particular type of fishing they are involved with. Recreational charter boat captains are the busiest during the summer, but some have started chartering out of Mexico during part of the winter. Others who might not fit these categories include church leaders, preachers, ministers, etc., whose lives revolve around church activities and church membership. These individuals may also fit some of the other patterns but a majority of their daily and yearly lives is devoted to the church.

Isolating evidence of economic hardship in Nags Head is difficult, yet hardship is a major issue on the minds of Nags Head residents. Whether it is lack of jobs, or food, or clothing, residents seem to feel that many in the area are living close to poverty, or at least from paycheck to paycheck. One indicator of hardship is the number of recipients of food donations from Nags Head's "Outer Banks Food Pantry." This organization, instituted by ten churches from the entire beach area and one Eastern Star Organization. In 1991, a total of 754 people received assistance from the Pantry; in 1992 1,525 persons received assistance. The director points to the recent economic conditions for the increase.

***Environmental Values and Perceived Threats*** The beach, the ocean, the sound, Jockey's Ridge and Nags Head Woods Preserve are the principal attractions for many people to visit or move to Nags Head. People choose to visit and live here because the natural setting means relaxation and recreation. The environment, particularly the beaches, lure visitors, which means "tourist dollars" -- the base of Nags Head's economy. Maintaining this environment is important to many residents. The Nags Head municipal government tries to capitalize on the natural environment and draws tens of thousands of visitors to see the "natural attractions" in Nags Head.

Perceived threats to the environment fall into two categories -- man-made events, and natural events. Natural events which would threaten the environment include hurricanes, Nor'easters, and the associated storms, flooding, and high winds that accompany these events. A direct hit, or a close hit, from a hurricane would be disastrous to Nags Head. The biggest impact would be to the town's physical infrastructure -- roads, houses, restaurants and hotels and motels would be destroyed.

"Development" is often cited as the major detriment to the natural beauty of Nags Head. Overdeveloping the land with too many houses, high rise buildings, condominiums, shopping malls and amusement centers is seen by some as a threat to the beauty of the area. Some residents fear that sewage treatment could create pollution problems. Many feel the water quality of the area would decline as a result of further developments, and poor water quality would mean a reduction in the quality of life. In turn, the economy would suffer because tourists would no longer visit an area.

Major industry is also seen as a threat to the environment because it could detract from the area's natural beauty through air, noise, and water pollution. Nags Head does not have an industry. Given the economic base, it is unlikely that a major industry would move into Nags Head.

One industry which is seen as detriment to Nags Head is the oil industry. The Nags Head land use plan specifically states that they will "not support off-shore energy exploration activities and will not permit land based energy facilities such as pipelines, storage, and electric generating facilities in Nags Head (Town of Nags Head 1992:27)." Most residents are opposed to offshore oil drilling which they see as a threat, their most vital resource, tourists. They believe that simply the existence of offshore oil drilling off the North Carolina shore will keep tourists away. They are also concerned about possible oil-related disasters as well as the possibility of small amounts of oil appearing on their beaches.

Groups differ on how much one development or another will help or hurt the area. The battle cry for many Nags Head residents is "Let's not make Nags Head another Virginia Beach." The development in Virginia Beach is regarded as the epitome of what not to do in an oceanfront community, i.e., poorly planned, commercial-oriented development. Most arguments about development usually end with persons opposing development saying "we don't want Nags Head to become another Virginia Beach," and persons supporting limited development saying "we won't let Nags Head become another Virginia Beach."

Within the fishing sector, most fishermen feel that population growth, tourism and farm runoff are the cause of most negative changes in the environment. Additional sewage systems and farm and industrial runoff have affected the water quality in the sounds. Many also feel that the sound water isn't sufficiently "flushed," because Oregon Inlet doesn't allow for much influx and outflow of water. Some have also talked about the amount of garbage they see in the ocean. One informant believes that this garbage is carried from New York along the Labrador Current. Basically they do not like the environmental changes that have taken place in Dare County in the last twenty to thirty years.

Many fishermen attribute the decline in fisheries to three things; too many fishermen, cycles of fish availability and pollution. Some informants stated that because commercial fishing became lucrative in the 1970's, many people became fishermen. Most fishermen, however, attribute the decline in certain fisheries to the cycles of the fish themselves. The cycle of the bluefish is often used to illustrate this point. Informants also feel that pollution is having an effect on fisheries. The decline in some species is blamed on overfishing. Some research, however, has shown that these fish were being destroyed before they hatched because of polluted water. Most fishermen feel that they are blamed for all the problems in the fisheries. They maintain that everyone has to share in the responsibility. Many commercial fishermen don't seem to think that they will be put out of business because of a lack of resource. They feel that regulations will put them out of business before the resource disappears.

**Major Changes of the Last Decade** Nags Head's permanent and seasonal populations have exploded over the past two decades. Meeting increased demands and pressures brought on by this increase has led to subsequent changes in the physical environment of Nags Head. The lack of available land for development attests to the growth. Major physical changes include the widening of the bypass highway to five lanes, the 400 acre development of The Village at Nags Head, the construction of the Reverse Osmosis Plant in Kill Devil Hills -- which attests to the need for an additional water facility for the area, and the increase in luxury homes being built as opposed to the basic "beach boxes" which were popular until the 1970's.

For the most part, Nags Head has held on to its prevailing philosophy that it is a family vacation destination that affords people the opportunity to rent a beach cottage, or affordable hotel room, while also offering a number of luxury-style developments and condominiums to the person with the ability to pay a little more for their visit.

People are in general agreement that Nags Head has made some tough decisions over the past ten years, but that all in all the local government has done an excellent job in maintaining the family beach atmosphere of Nags Head. While Nags Head is well developed, Nags Head seems to have control over what development has and will take place. Residents are proud of what their town has accomplished in this regard.

**Population Flux and Factions** The people who move to Nags Head permanently seem to have a commitment to staying, although some move away if their businesses fail.

The social implications of the population changes on Nags Head are many. As more people make use of it as a permanent or seasonal residence, or as a tourist destination, conflicts arise over land use. Rights to the beach, driving on the beach, surfing near piers and fishing near shore become problems. Social conflicts also arise over how development should take place and how the town should control growth. Many suggest that new residents to the area come to Nags Head with a notion of how things ought to be. As the residents settle into the area, differences of opinions about the future of Nags Head are sorted out.

People predominantly from Southeastern Virginia and Northeastern North Carolina move to and visit Nags Head. In the past ten years, more people from states further north have begun to visit and settle: Maryland, New Jersey, Pennsylvania, Delaware, Ohio and New York.

People who own, manage, or work in tourist businesses wish to see the industry grow in a controlled manner. Most would like to keep the area generally free of chain businesses which they feel would make the area just like the places where the tourists are coming from. They feel that Nags Head's uniqueness attracts tourists. Again, most people do not want Nags Head to become a Virginia Beach, but they do not want people to stop visiting the area either.

***Seasonal Differences*** For Nags Head residents, the year is divided into two periods: the time when the tourists are here and the time when they are not. Or, one might say there is the summer and the winter on Nags Head. During the summer, the town is inundated with ten times its permanent population. Shops, stores, restaurants, hotels and rental cottages are filled to capacity. Permanent residents seem to fall into the background. Many avoid the crowded beaches and do such things as shopping for groceries at odd hours in order to avoid the crowds. In addition, many local residents may take on extra jobs during the summer. Certain stores and grocery stores extend their hours for this part of the year.

Permanent residents may be lost in the crowd. Cashiers, clerks, waiters and waitresses may treat them as just another tourist. While this may not be the case in all area establishments, it is truly a phenomenon that occurs. The typical knee-jerk response to all customers in shops and stores during the summer is "enjoy your vacation," or "where are you from," whether you are a local or not.

As the summer season ends and the fall season begins, the number of visitors and the number of open establishments diminishes. The traffic slows and locals begin having more time to themselves. The beaches open up to four-wheel-drive traffic. The fall is also viewed by local residents as the prettiest time of year because the water is still warm, the temperature starts to cool, the tourists have all but gone home, and the fish are biting. In fact, the "blue blitzes" are a fall event locals truly look forward to. When the bluefish are biting along the beach, it is common to see several four-wheel-drive vehicles cruising the beach and the public accesses to check for flocks of gulls over the shore. If gulls are "working" a particular area, then it is a sure sign that a school of bluefish are present. When a school of blues are spotted, dozens of vehicles and fishermen cast for them. The event is a major attraction to non-resident and resident recreational fishermen.

Late summer and fall are hurricane season. Hurricanes that pass by are quite dangerous, those that hit can be disastrous. The constant threat of hurricanes keeps permanent and non-permanent residents alert throughout this period of the year. Markers around town indicate water levels occurring during past hurricanes, which shows the importance that locals place on these events.

The winter unofficially starts after Thanksgiving and ends on Valentine's day. Thanksgiving marks the unofficial closing of the few seasonal stores and restaurants that stay open the latest. Valentine's day marks the opening of many seasonal places that capitalize on a holiday that often means going out to dinner. With the exception of Christmas, New Year's and the Nor'easters, the winter is a very quiet time in Nags Head. Nor'easters, storms which blow in from the Northeast and often make the Atlantic overwash into the town's streets, are the major threats during this time of the year. Not until May and June do the winds begin to blow consistently from the south. Not only the storms, but the consistently strong northeast winds make winters harsh in Nags Head. Ocean overwash blocks roads and rusts cars. Salt can affect power lines and temporary power outages can occur.

Spring for permanent residents means gearing up for summer. People get their businesses in order, and the town cleans itself up after a stormy winter. The transient population which works in Nags Head during the season begins to move back for another summer. The temperatures start to rise, but the crowds are still small enough to make a day at the beach an uncrowded one, and temperatures are still low enough to make the day a cool one.

Yet summer comes again. The tourists arrive starting in May, and the numbers are their highest by early June, just after schools let out for the summer. While Memorial day marks the beginning of summer for many people, July Fourth seems to be the marker for the full-fledged summer season in Nags Head. On no other weekend does the beach seem as crowded. In 1993 fireworks were held in three distant locations in the beach area: Corolla, Manteo and Hatteras. Close to 30,000 people attended and more watched from various vantage points across the sound. Hundreds, for instance, climbed Jockey's Ridge.

During the winter, locals have the time to devote to catching up on things after the summer season, and they also have the time to devote to clubs, town meetings, and personal hobbies. Places that locals gather include churches, restaurants and bars. Restaurants that are open year round are the places that locals gather during the off season. Casual discussions while shopping or running errands are also important times for locals to meet and exchange information. The post office continues to be an important place for such activities. People also get together at school functions, such as football games during the fall.

Surfing is also a major activity during the off-season months. The fall, winter and spring months are the best times for surfing. The hurricane season and Nor'easters bring consistently good surfing conditions to Nags Head during these months. Many surfers have moved to the area to be close to the beach and the consistent surf. Currently, the national Surfrider Organization has started a local chapter on the Outer Banks, their membership is derived mostly from local surfers. Their environmental and community efforts have not gone unnoticed by the local towns, and their efforts have increased the visibility and importance of surfers and surfing to the local area.

While the best waves are during the off-season months, the number of surfers in the area drastically increases in summer. During the fall, winter and spring, it is not uncommon to see a dozen or so surfers out at any particular surf break when the surf is moderately good. During the summer, however, it is not uncommon to see between twenty-five and forty surfers out at any break when the surf is moderately good. When the surf is very good, regardless of the season, surfers come to the area in droves.

***Local Fish Harvesters*** Only a few Nags Head residents fish for a living. While this group does not stay in the social or political limelight, the local people and government maintain the importance of affording locals the right to fish for a living in Nags Head. This understanding gives this minority group an important and symbolic place within the Nags Head social structure. Recreational fishing from the piers and beaches during the warm seasons is another activity that many locals take part in.

***Natives Versus Newcomers*** Many different categories of people live in Nags Head. "Native residents" are people who were born in Nags Head to parents or families who have ancestral ties to Nags Head. A handful of native residents reside in the town but they are a small minority. "Permanent residents" are those people who have made Nags Head their year-round home. "New residents" are those people who have just moved into Nags Head permanently. Native and permanent residents are "locals." Locals are people who have lived in the area a relatively long time, and who have spent several winters in the area. "Non-resident property owners" own land in Nags Head but do not live here permanently. These people do not have a vote in the local government, but they try to make themselves heard through property owners associations and local citizen groups. "Retirees" are a growing population segment in the town. This population segment has played a major role in the growth of Nags Head. In fact, the massive growth in the town occurred simultaneously with the influx of retirees to the area. Seasonal residents spend summers in Nags Head. The tourists spend the least amount of time in Nags Head, generally speaking, but they arguably play the most significant role in the local economy.

***Religion/churches*** Nags Head is home to seven churches that have an extensive influence on life in the town. The churches procure membership from the surrounding area, but most members in each church are from Nags Head. The churches in Nags Head are: The Church of Jesus Christ of Latter Day Saints (Mormon; 215 members); Kingdom Hall of Jehovah's Witnesses; The Outer Banks Worship Center (Assembly of God); Grace Lutheran by-the-sea (115 members); St. Andrews by-the-sea (Episcopal; 400 members); Outer Banks Catholic Parish -The Holy Trinity; and Nags Head Baptist Church.

Churches are active in the community on several levels. Some are centers for community-wide activities. St. Andrews by-the-sea, for instance, opens its doors for twelve-step program meetings, a daycare center and public meetings. This past election year, the church held a "meet the county commissioner candidates night," sponsored by the League of Women Voters. St. Andrews has also made available their church for the town's public meetings. Since the town's incorporation, the town has had to rely on outside help for a large meeting room to hold public meetings or hearings where a large turnout was expected. The planned new municipal complex will alleviate such a need in the future.

Other churches concentrate their efforts on activities for their membership, and for groups outside the church. The Church of Latter Day Saints, for instance, has both activities open for the whole community, such as Boy Scouts, and weekly and monthly activities for non-members too. The Outer Banks Worship center has a family center that is open for the community for certain activities. Their most popular activity is family roller-skating night on Friday and Saturday each week. They also provide basketball facilities. The center has held Scout meetings in the past.

The churches are affected by the tourist season. Physically, the churches are built to accommodate much larger congregations than their permanent membership. During the



summer, the number attending church may triple. The Church of Jesus Christ of Latter Day Saints approximates that seventy people attend services during the off-season, and between 180 and 200 attend services during the summer.

***Clubs and Service Organizations*** Clubs and Service Organizations in Dare County often have interest in or offer services to several incorporated and unincorporated areas of Dare County.

The Nags Head Lions Club, with seventeen members, does charity work for the visually and hearing impaired. In addition to other fund-raising activities, the group co-sponsors a surf fishing tournament for the blind in October. Last year they had 300 people participate from around the state.

A popular activity in Nags Head is surf fishing. Three groups exist in Nags Head that revolve totally or in part around surf fishing: the Nags Head Surf Fishing Club (NHFSC), the North Carolina Sea Hags (NCSH) and the North Carolina Beach Buggy Association (NCBBA).

The Nags Head Surf Fishing Club and the North Carolina Sea Hags are very closely related. The Sea Hags, the oldest all-women fishing club in the southeast, originated as an all-women's club during the time that the Nags Head Surf Fishing Club did not admit women. Today, the Surf Fishing Club and the Sea Hags co-sponsor a youth fishing tournament in July and the very popular Nags Head Surf Fishing Tournament in October. The groups also work closely with the Beach Buggy Association. In addition to surf fishing, the groups provide various social services to the community, including sponsoring a child at camp through the Dare County Department of Social Services.

The NCBBA's 4,009 members share a similar interest in driving their four-wheel-drive vehicles on the beach. The majority of these folks are also surf fishermen. While the secretary resides in Nags Head and the club's mass mailings are sent from Nags Head, the actual membership predominantly from outside the Outer Banks and North Carolina. Virginia residents make up fifty percent of the Association. Approximately twenty-five percent of the membership is from North Carolina, and ten percent are from the Outer Banks. The NCBBA is a conservation and social service group, as well as a sports group. They are dedicated to preserving the natural resources of coastal areas of North Carolina and provide leadership in keeping beach access and surf-fishing areas open. The NCBBA works closely with local towns and government agencies to assist with such efforts as beach clean-ups, protecting various species on the beach, and in increasing awareness and respect for North Carolina's beaches.

Due to their similar interests, the NHSFC, the NHSH and the NCBBA have become a viable political force on issues surrounding use of the beach. Current and ongoing issues the groups are involved in include driving on the beach, vehicular access to the beach and commercial versus recreational fishing conflicts on the beach. These groups tend to align

themselves with the Atlantic Coast Conservation Association, tackle shop owners and recreational fishermen in general, on issues dealing with use of the beach. These groups have considerable clout in Nags Head.

The Nags Head Chapter of the Boy Scouts currently has twelve to fourteen members and meets weekly at the Church of Latter Day Saints. The Girl Scouts are part of the Colonial Coast Girl Scout Council. The particular geographic region here has twenty-four troops with approximately 300 girls and seventy adults participating. Nags Head girl scouts participate with girls from Kill Devil Hills at the First Flight School. Nags Head has two all Nags Head girl groups: one group is a Daisy group with seven girls, and one is a small Brownie troop with eight girls. Alcohol and Drug Abuse Support Groups also meet in Nags Head. These groups include Al-Anon, One Day at a Time; Alcoholics Anonymous; Adult Children of Alcoholics; CODA (Co-Dependents Anonymous; and Narcotics Anonymous.

*Other Voluntary Associations* Voluntary associations include home-owners groups and business-related groups galvanized by issues related to their own special interest or property. Groups may idle when it is not necessary for them to come together for a particular purpose. The groups discussed below are those that have, or continue to have, considerable influence in Nags Head. Many have members who are not permanent residents in the area. These groups give non-resident property owners some say in how things are done in Nags Head.

Because of the high percentage of "development neighborhoods," such as the Villas Condominiums, Old Nags Head Cove and the Village at Nags Head, property owner associations have become an integral part of the social structure in Nags Head. While associations remain idle or are involved only with their own property, the Old Nags Head Cove Association (ONHCA) is a viable political influence in the town. Started around 1982, the association now has approximately 500 members. All members are property owners but not necessarily permanent residents. The ONHCA has one full-time staff person. ONHCA members serve on influential boards throughout Nags Head, including the Board of Commissioners.

Many homeowners associations represent absentee property owners. The Nags Head Civic Association (NHCA) started mainly as a group to represent absentee property owners who needed some outlet for their concerns about issues confronting the town. The group started in the late sixties and numbered 794 members as late as 1986 (May 5, 1986 Town of Nags Head Board of Commissioners Meeting's public hearing). The NHCA is now idle. The secretary of the organization says the group still has money in its treasury but that no one person has the time or inclination to head up the group. Others suggest that the older members now live and vote in Nags Head and therefore the group has outlived its purpose. The NHCA started the Nags Head Community Awareness Day, which is currently held and run by the Nags Head Volunteer Fire Department.

Another highly influential group are the business owners represented by the Nags Head Business Association (NHBA), a forum for their opinions on issues which could affect the

business community. As with the civic association, the group is currently idle, owing mostly to the recent death of their president. Many suggest that the group formed in direct response to a single issue, the "down-zoning of the oceanfront," and became idle after the issue was settled. Most agree that the strength of this group played a major role in the town's decision not to "down-zone the oceanfront." This issue would have made building on the oceanfront, and in particular reconstruction after storms or hurricanes, very difficult.

Other needs of the business community are met by such groups as the Outer Banks Chamber of Commerce, the Dare County Tourist Bureau and the Dare County Board of Realtors. Among these groups, the Chamber of Commerce and the Dare County Tourist Bureau have become very influential in Nags Head and in the area in general. The Tourist Bureau currently receives the majority of a one-percent tax on restaurant sales. These funds have increased the group's potential to promote their interest in the area.

Some other county-wide voluntary associations which play a major role in Nags Head include: the Dare County Restaurant Association; the Outer Banks Hotel/Motel Association; the Outer Banks Homebuilders Association; the League of Women Voters of Dare County; the Dare County Restaurant Association; the Virginia Dare Business and Professional Women of the Outer Banks; and the First Flight Society. While some of these groups may take a political position, their primary purpose is to promote their business or group interests. The League of Women Voters, for instance, works to increase citizen participation and awareness in the political arena.

Two closely-related, non-political volunteer organizations in the town are the Nags Head Volunteer Fire Department (NHVFD) and the Women's Auxiliary of the Nags Head Volunteer Fire Department (WANHVFD). The NHVFD has thirty-two volunteers; four are female and twenty-eight are male. The volunteers are required by state law to attend thirty-six hours of classes per year, and 144 hours of classes are offered. While the volunteer staff is not required to have Emergency Medical Treatment training, most do. Seventy percent of the volunteers are first responders, which is viewed as an excellent indication of commitment to the department. The NHVFD puts on a community awareness day in conjunction with Fire Prevention week. The NHVFD also sponsors Bingo every thursday night, and proceeds go to support the NHVFD.

The Women's Auxiliary of the Nags Head Volunteer Fire Department currently has thirty members. The majority of the women are not wives of volunteer firefighters, but "women who feel this is the work they want to do." The women do everything possible to assist the firefighters. During particularly difficult or long fire calls, the women provide support by bringing food and drinks for the firefighters. The women also provide housing in the fire station for people who are displaced by storms. During the recent "storm of the century," the women helped house thirty-nine people.

***Interest Groups and Other Voluntary Associations*** Interest groups are political; they confront issues, often user conflicts, within the town. While these groups may have additional service functions, their primary goal abides in one interest domain. Other groups within this section are community or civic-minded organizations, such as the Outer Banks Forum. Several environmental organizations have interest in Nags Head, some of the groups based in town and others not. The Nature Conservancy is perhaps the most important environmental organization with interest in the town because they own the largest, single acreage in Nags Head, Nags Head Woods. Nags Head Woods is partly supported by "The Friends of Nags Head Woods," a group of 850 people with seventy-five percent of membership from the Dare County area. The Town of Nags Head has a good relationship with the Conservancy and continues to support Nags Head Woods financially. Another organization, "The Friends of Jockey's Ridge," is a group of 100 persons who hail from all over the country, but mostly from the general Dare County area. Their contributions mostly support the interpretive and educational facilities and maintenance of the park. The group is three years old.

Another national environmental organization in the area is the Surfrider Foundation. This group's main interest is preserving the quality of the coastline. The Outer Banks chapter of Surfrider Foundation is relatively young and has members from around the state. The group is making themselves known in local political circles. They are beginning to do water quality testing as part of national project started by their national organization. Membership is open to any interested persons, not just surfers.

Water quality is a major concern for people in Nags Head. In response to this concern, a local environmental organization called Soundsense has formed. The group's founders are local businessmen who feel that, without good water quality, their businesses and the tourist business in general will dry up. The group's members address local groups and local governments regarding water quality issues. By continually spreading the word, they hope to keep water quality as a major item on everyone's agenda.

Nags Head is also serviced by other community or civic-minded organizations such as the Outer Banks Community Foundation (OBCF), the Outer Banks Forum (OBF) and Dare Voluntary Action Center (DVAC). OBCF provides grants for community development and service projects in the area. In its ten years as an organization, the OBCF has offered eighty-two grants totalling \$182,742 (The Coast, April 11, 1993, Volume 8, Number 15, page 10). The OBF brings entertainment to the beach area in the form of concerts, opera, soloists, storytellers and other forms of events. The OBF, now ten years old, has a membership of between 250-300 people and is staffed by an all volunteer staff. DVAC promotes volunteerism and provides volunteers for local agencies.

One other important interest group in the area was the Area Development Coordination Agency (ADCA). ADCA was set up to investigate community problems relating to growth and urban functions. Their duties included monitoring growth patterns, recommending

management procedures and areas of concern relating to the promulgation of laws and ordinances (DVAC:34). The group produced "ADCA Recommendations," a report that summarized their research and included their proposals. The ADCA report remains an important document for local government and special interest groups.

Other county-wide or national organizations that have an interest in Nags Head include: Ducks Unlimited, Outer Banks Chapter; Outer Banks Audubon Society; Legasea; Atlantic Coast Conservation Association; and Dare County's Friends of Youth Organization (FOY). FOY matches court-appointed or at-risk youth with adults who volunteer time to spend with these children. FOY currently has seventeen children participating in the program, and the number continues to increase.

### 3.3.8.2 Social and Cultural Issues

We asked twenty Nags Head residents to list the most important issues affecting the town. One set of top responses included sewer problems, drinking water problems, beach re-nourishment, and schools and education. Other sets included problems with controlling growth and land use; miscellaneous economic issues; maintaining the quality of life and identity of the town; general environmental concerns; and infrastructure concerns. The following discussion focuses these aesthetic and risk perception issues. Other issues with sociocultural repercussions also are addressed.

***Sewer Problems*** Nags Head does not have a large-scale sewage waste treatment facility. A regional sewer development is seen as the next step to increasing the number of residents and visitors. Many residents believe that the day such a treatment plant is built is the day that the town will no longer control its own growth. They feel that a regional sewer system will give developers the opportunity to construct buildings that are not now part of the town's land use plan. The Nags Head Land Use Plan notes opposition to ". . . a public sewer system in order to avoid the pressure for high density development that is expected to follow installation (Nags Head Board of Commissioners 1992:44)." Others feel that regional sewer systems would make living in the area too expensive.

Few in town would argue that there is no current sewage problem. Many refer to the smell that pervades parts of the town during wet spring seasons. As one resident stated:

If they don't put in a sewage system, they are going to have a big problem. They already have a problem if they have a wet spring.

***Drinking Water Problems*** The recent construction of the Reverse Osmosis Plant in Kill Devil Hills makes the availability of drinking water currently a non-issue. However, the quality of that water, the problems other areas of the county are experiencing and the

expense of drinking water have people concerned about drinking water in general. As a municipal water plant administrator noted:

When visitors come to the beach they automatically think they have to buy bottled water, but that is not true.

Drinking water is more a county-wide issue than a town issue. Local municipalities and the county have worked closely to make sure there is an adequate supply of water and that the water is of the highest quality possible. As with sewage problems, the availability, cost and quality of drinking water are used as indicators of a town's ability to grow. For instance, if more advanced water systems are built, the population in the beach areas will grow. If drinking-water availability and quality decline then a reduction in visitors to the beach is possible.

***Beach Re-nourishment*** One of Nags Head's most important resources is its beaches. Continuing problems with beach erosion in town and in neighboring areas has left many arguing for beach re-nourishment. Most conflicts surrounding this issue involve its costs and benefits. The most vocal proponents in Nags Head are those who have the most to lose, namely oceanfront property owners.

The issue, however, crosses town lines. Arguments over who is getting whose sand are often heard at county wide meetings discussing beach erosion. The highly publicized problems with overwash on Highway 12 on Pea Island, and the value of sand-replenishment projects related to Oregon Inlet, have made beach erosion and re-nourishment a cogent and important issue.

***Schools and Education*** Whether to build additions to the existing high school in Manteo, or build a new school in the beach area, is a major issue facing Nags Head and its neighboring communities. The issue is an explosive one and many feel the "school issue" will divide existing communities. Informally, many suggest that the real reason for constructing a "beach school" is to reduce the drive time to school for beach residents. Some argue that:

. . . [People] knew where the schools were when they moved here. What the hell did they move so far away for! You pay a price for living where you live, and the commute to school is one of them.

The issue brings to the surface an underlying rivalry between beach and Roanoke Island residents. Differences in the social and economic status of these two areas is heightened by the groups taking sides on this issue. For instance, beach residents are seen mostly as newcomers to the area who are pushing their needs on those of others by demanding a new school rather than making additions to the Manteo school.

Building schools on the beach, however, is not new. The construction of the First Flight Schools in Kill Devil Hills and Kitty Hawk elementary were the first beach schools built to meet the increasing needs of the growing beach population.

***The Social and Cultural Impacts of Tourism*** If tourism were taken away, Nags Head would likely lose its ability to support the permanent population in the manner it has grown accustomed to. Tourism is also crucial to the social fabric of Nags Head. Most everyone in the town shares an interest in seeing tourism thrive. Relationships between groups, businesses and individuals are often based on tourism. It fosters relationships among groups which might otherwise be at odds. For instance, the major resource in Nags Head is "the environment" -- the kinds of things tourists come for, such as beaches, clean water, motels and amusements. In order to develop the tourist industry around "the environment" in this small geographic zone, developers and environmentalists have created and maintained working relationships. No one makes these people work together, and in some cases groups are at odds with one another. But, as a community, Nags Head's ability to cooperate with one another is in evidence.

Tourism also affects permanent residents in a logistical sense. The additional number of people and cars alone makes Nags Head in the off-season and Nags Head in-season two different places. Going to the grocery store, for instance, takes on a whole new meaning during the summer. In season, permanent residents know when to go to the store and when to avoid the store. "Do your shopping before the weekend" is what most permanent residents suggest.

***Natural Resource Issues*** Conflicts over natural resources lie at the heart of issues in Nags Head. Two major types of conflicts exist. First, the town has problems with user-group conflicts over natural resources. Examples of this type of issue include conflicts between surfers and pier owners over use of the ocean, and recreational and commercial fishermen over use of the beach during certain fishing seasons. Second, the town has problems limiting its impact on the natural resources resulting from growth.

The user-conflicts are complicated but solutions are most often reached through compromise. A recent conflagration between recreational and commercial fishermen resulted in the town deciding to zone certain areas of the beach either recreational or commercial during certain times of the year. Problems with surfers and pier owners resulted in a 300-ft, no-surfing zone on either side of piers.

Solutions to natural resource problems vis-a-vis growth are complex. The issues are typically classic Catch-22; that is, the town wishes to promote their natural resources and increase the amount of visitors to the area, but by increasing the number of visitors to the area they place more pressure on the natural resources they are promoting. At present, the town's stated solution is to attempt development of well-planned land use and stringent regulations on development.

***Community Identity and Consolidation of Town Services*** Nags Head has no community center, no downtown, no school and no athletic fields. In addition, the majority of Nags Head residents are newcomers to the town, and thus have few family ties to the area. Still, some residents do express their ideas that the town does have a common identity, even if it is not based on patterns of identity noted elsewhere. The need to cooperate on a seasonal basis appears to be one reason why at least some residents have developed a sense of community. Ironically, another source may be that most residents do not share a common heritage and ancestry. Because of this they have developed community built on other types of relationships. The churches are one avenue of residents used to create a sense of community. A local sense of identity is exemplified by the stubborn resolve of residents to avoid consolidation with neighboring beach communities, an action that has been considered informally for many years.

### **3.3.9 Summary**

The last two decades have seen Nags Head's population grow significantly and seasonal change has been intense. The town remains a popular beach resort community with an economy reliant almost exclusively on tourism. There are now relatively few permanent residents with a long history in the area; retirees and entrepreneurs are major groups who have moved here over the past two decades. Transient working populations, the closing and opening of businesses, differences in traffic flow, and the existence of ghost town neighborhoods during the winter are some of the factors that make Nags Head unique. Development and associated social and infrastructural changes are the key issues for Nags Head as it enters the twenty-first century. Thus far, many residents feel local government has done a good job of maintaining the community's traditional image of a family vacation destination.



## **3.4 HATTERAS**

### **3.4.1 Introduction: Hatteras and the Case Study Communities**

Hatteras Village (Hatteras) is located at the southern terminus of Hatteras Island, adjacent to Hatteras Inlet and the Cape Hatteras National Seashore. The Atlantic Ocean borders the community on the east, and the Pamlico Sound provides the western border.

Hatteras was chosen as a case study community because its status as an Outer Banks town dependent on a combination of commercial and recreational fishing and tourism. Its social and infrastructural relationships with other communities on Hatteras Island will also serve as a meaningful focal point for understanding socioeconomic linkages among communities along this part of the Outer Banks.

### **3.4.2 Physical and Biological Environmental Overview**

Hatteras is situated at the southwest terminus of Hatteras Island, some eighty land-miles from the mainland at Mann's Harbor, some thirty water-miles from the mainland at Swan Quarter, and many more miles from significant population centers in any direction. The island itself is a classic example of the barrier island -- a narrow strip of sand and vegetation subject to continual reformation and migration through the forces of wind, tide, wave action and other oceanic agents of change.

Presently, Hatteras Island assumes the shape of an arm whose elongated forearm and hand points to Oregon Inlet and, running slightly northwest to southeast for about thirty-five miles, meets the elbow at Cape Hatteras. The upper arm makes for the southwest where it terminates north of Hatteras Inlet. The island is separated from the mainland by the shallow Pamlico Sound, the waters of which erode the island's western shores. To the east is the vast Atlantic Ocean which sends its cold Labrador Current down from Canadian reaches to meet the north-bound tropical Gulf Stream at Cape Hatteras. Among the east coast states, the Continental Shelf is at its narrowest along Hatteras Island. This serves to increase the erosive qualities of wave action as swells advance from deep water to meet the sand with often considerable intensity. None of the barrier islands from New England to Florida are so distant from the mainland as Hatteras Island and none in so active an ocean regime.

The collision of the Labrador Current and the Gulf Stream results in upwelling of nutrients and, consequently, an abundant and varied selection of species offshore; both cold-water and tropical fish species are abundant in the region. The collision of the warm Gulf Stream with cold continental air mass outflow is also a suspected factor in spawning strong, extra-tropical, low pressure systems in the North Atlantic. Local weather and water temperatures are also affected by the currents. In winter, for instance, communities south of Cape Hatteras may experience significantly warmer water temperatures than communities just a

few miles north of the Cape. In January, the average maximum daily temperature in the area is fifty-two degrees and the average daily minimum is thirty-eight degrees. Winds average around fifteen miles per hour during this time of year and five inches of precipitation is the norm. In July, the average high temperature is eighty-four degrees and the average low is seventy-two. Wind speeds average about thirteen miles per hour and over six inches of rain can be expected (National Park Service, personal communication 1992).

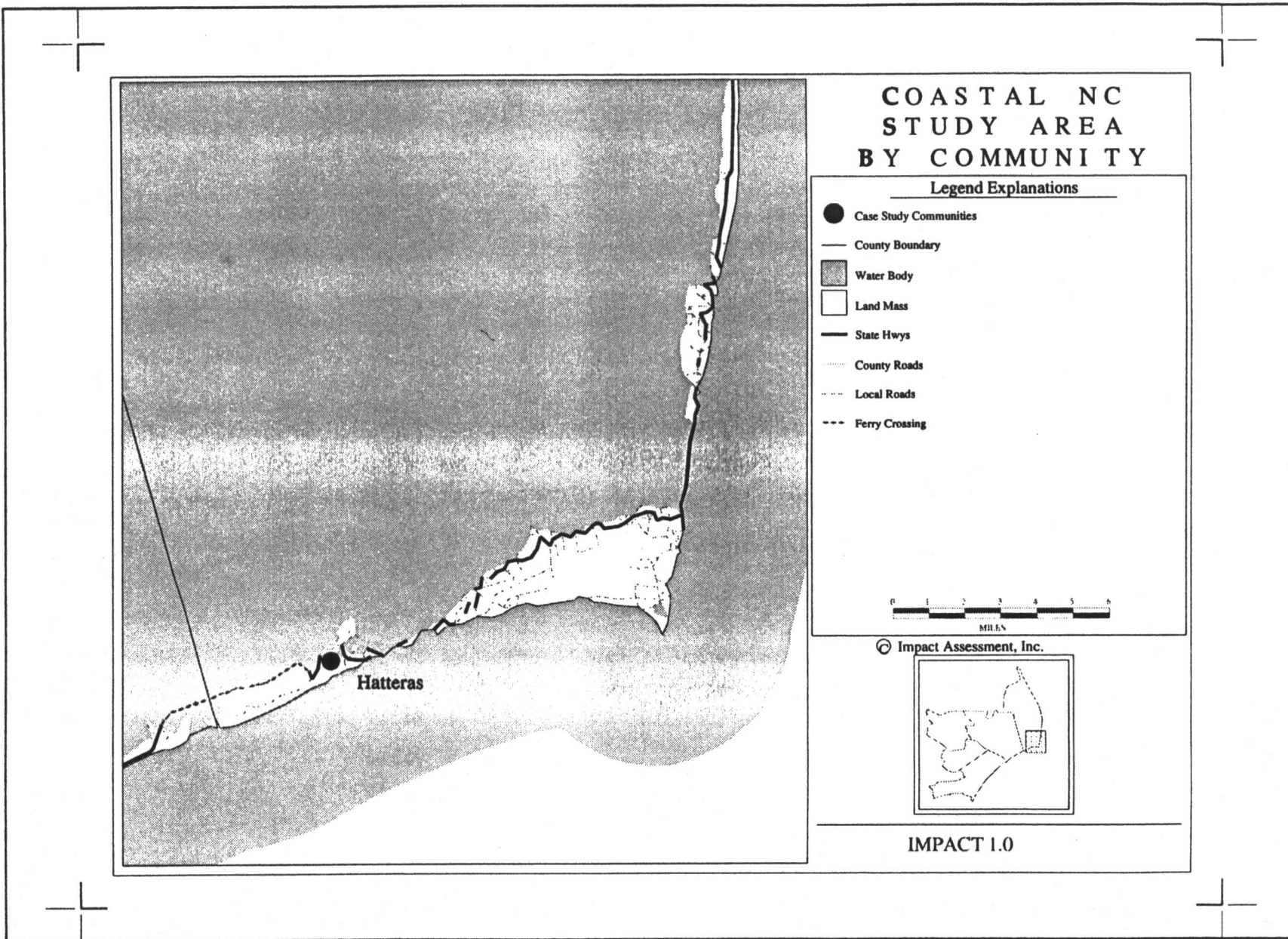
Hatteras Island is noted for its abundant marine resources; these have been harvested by human groups for many centuries. Lawson (1709:159), for instance, describes Native American's catch of a species popular to this day:

The Blue Fish is one of our best Fishes, and always very fat. They are as long as a salmon, and indeed, I think, full as good meat. These fish come in the fall of the year generally after there has been one black frost, when there appear great shoals of them. The Hatteras Indians, and others, run into the Sands of the sea, and strike them. . . Sometimes many Cart-loads of these are thrown and left to dry by the sea side, which comes by their eager pursuit of the small fish, in which they ruin themselves ashore and cannot recover the Water again.

Today, a variety of shellfish and fish are harvested in the sound, and a wide variety of fish are taken in nearshore and offshore waters of the Atlantic. The waters and wetlands of Pamlico Sound are noted nursery areas for many species. Many such areas in the region are protected from development by strict wetlands and resource water policies.

Following are some of the important fish species that frequent the waters near Hatteras. These species are important both commercial and for recreational fishermen: Black Sea Bass (*Centropristis striata*), Channel Bass (*Sciaenops ocellatus*), Bluefish (*Pomatomus saltatrix*), Cobia (*Rachycentron canadum*), Croaker (*Micropogonius undulatus*), Red Drum (*Sciaenops ocellata*), Flounder (*Paralichthys spp.*) King Mackerel (*Scomberomorus cavalla*), Spanish Mackerel (*Scomberomorus maculata*), Pompano (*Trachinotus Carolinus*), Sea Mullet (*Menticirrhus spp.*), Spot (*Leiostomus Xanthurus*), Striped Bass (*Morone saxatilis*), Sheepshead (*Archosargus probatocephalus*), Gray Trout (*Cynoscion nebulosus*) and Speckled Trout (*Cynoscion regalis*).

The waters offshore Cape Hatteras are noted for a seasonal abundance of species which travel in the warm waters of the Gulf Stream. Following are some popular tropical species pursued by fishermen in the Hatteras area: Amberjack (*Seriola dumerili*), Dolphin (*Coryphaena hippurus*), Mako Shark (*Isurus Paucus*), Blue Marlin (*Makaira nigricans*), White Marlin (*Tetrapturus albidus*), Sailfish (*Istiophorus platypterus*), Tilefish (*Lophaltilus chamaeleonticeps*), Bluefin Tuna (*Thunnus thynnus*) and Wahoo (*Acanthocybium solanderi*).



The Pamlico Sound waters west of Hatteras Island are also productive fishery areas. Among some of the more productive species here are shrimp and clams.

Several threatened and endangered aquatic, terrestrial and avian species are either endemic to or seasonally inhabit Hatteras Island. Among these, the piping plover (*Charadrius melodus*) has caused recent controversy as certain sections of the beach on Hatteras Island were closed to four-wheel-drive vehicles to accommodate its nesting activities. Like the piping plover, the loggerhead turtle (*Caretta caretta*) requires undisturbed beach habitat for nesting. Protection of this species continues to frustrate some fishermen required to equip their fishing nets with Turtle Excluder Devices (TEDs). These help prevent turtle deaths in the nets but are often reported to be difficult to work with. The Seabeach amaranth (*Amaranthus pumilus*), endemic to dune ecosystems in just a few coastal states, is thought to have some economic potential but is reportedly in jeopardy from coastal development.

### 3.4.3 Community Chronology

The Italian navigator, Verrazano, visited the Outer Banks in 1524 and thought he had discovered a new route to the Orient. Verrazano explored the area some years after and was, in turn, followed by English explorers later in the sixteenth century. The English settled areas further north in Virginia but eventually migrated south to the Outer Banks. By the early eighteenth century, Hatteras and Ocracoke Inlets had become important sites of access to the Atlantic Ocean for trading vessels. Activity at these inlets was cause for development of small seaports. Pirates and privateers also plied the area's waters and threatened the legitimate vessels and citizens (Greenways, Inc. 1989:8).

Given its proximity to points of entry into the Atlantic, Hatteras was a strategic location during both the Revolutionary and Civil Wars. Union forces controlled the Outer Banks after 1862, thereby gaining advantage over Confederate forces. The famous ironclad *U.S.S. Monitor* sunk sixteen miles off of the Outer Banks in 1862. This site was the first to be protected under the Marine Protection, Research and Sanctuaries Act of 1972.

The Outer Banks was also a strategic area during World War II. German submarines presented a constant threat to Allied vessels travelling offshore North Carolina. Some residents of Hatteras remember days of apprehension and nights of blackout as the German forces patrolled the offshore and nearshore waters. Although some of the shipwrecks that lay offshore are the result of war, many hundreds of vessels have sunk along this stretch of coast primarily as a result of hazardous sea conditions. Treacherous shoals, unpredictable surface conditions, changing currents, rapidly developing storms and heavy surf activity are some of the factors have led to the status of the Outer Banks as the graveyard of the Atlantic. Before the arrival of the U.S. Coast Guard, local residents acted to save shipwreck victims. Literally hundreds of stories of heroism at sea are chronicled in print and in the minds of area residents.

During and following World War II, Hatteras became popular as a point of departure for charter fishing trips. The locally legendary "Albatross Fleet" was organized during this period (1937). Offshore charter fishing was one attraction for tourists to visit the area and remains an important source of income for many local commercial fishermen during the tourist season. The wide beaches and warm ocean also attracted visitors during the summer months and tourism eventually became an important factor in the local economy. Commercial fishing also developed after World War II and remains an important source of revenue for some residents.

#### 3.4.4 Demographic Characteristics

Three small communities are located just north of Hatteras but are geographically distinct from Hatteras. The U.S. Bureau of the Census, however, treats the communities of Avon, Buxton, Frisco and Hatteras as a single enumeration district -- Hatteras Township. In the absence of census or other data that enumerate Hatteras specifically, the following necessarily provides information for Hatteras Township. Some non-census information describing Hatteras specifically also is provided.

##### 3.4.4.1 Population History

Hatteras was and remains a small seaside community at the southern tip of Hatteras Island. The community has always been relatively isolated in geographic terms and this fact is reflected in the community's small population size. Few data are available to describe trends in the overall population size of the community, but the community has slowly grown from around a couple of hundred persons in the eighteenth century to its current size of about 1,660 permanent residents (National Park Service 1992; personal communication). In 1970, the population was 1,333; it was 1,550 in 1985 (Hegenbarth and Shaw 1984).

##### 3.4.4.2 Recent and Current Population Characteristics

**Age/Gender** 1990 census figures indicate that seven percent of the population of Hatteras Township were under the age of five, 22.3% were under the age of eighteen, and 13.1% were over the age of sixty-five. The median age of the population was thirty-six years. There were 1,305 male residents, or 50.5% of the population, and 1,279 female residents, or 49.5 of the total population (U.S. Bureau of the Census 1990).

**Ethnicity** Hatteras Island is populated almost entirely by whites. The island has never been home to even small populations of ethnic minority groups. According to 1990 census figures, there were five African-Americans, eight Native Americans, two Asian or Pacific Islanders, and seventeen persons of Hispanic origin of any race living in Hatteras Township. Thus, the population of Hatteras Island in 1990 was 99.98% white.

**Household Characteristics** There were a total of 1,077 households in Hatteras Township in 1990. Almost sixty percent of these were married-couple family households. Table 3.4-1 provides household information for the township for the 1990 census year.

<b>Table 3.4-1 HOUSEHOLD INFORMATION 1990: HATTERAS TOWNSHIP</b>	
<b>Census Category</b>	<b>1990</b>
Total Number of Households	1,077
Average Number of Persons per Household	2.38
Percent of Married-couple Families	59.7
Percent of Male Householder Families	1.85
Percent of Female Householder Families	6.87
Percent of Non-family Households	31.5
Percent of Householders Sixty-five or Older	7.80
<b>Source: U.S. Bureau of the Census</b>	

**Housing Information** There were a total of 1,861 housing units in Hatteras Township as enumerated by the census in 1990. Table 3.4-2 provides further information about housing in the township.

<b>Table 3.4-2 HOUSING INFORMATION 1990: HATTERAS TOWNSHIP</b>		
<b>Type of Unit</b>	<b>Number of units</b>	<b>Median Value/Mean Rent</b>
	1990	1990
Total housing units	1,861	109,00
Owner-occupied units	798	334
Renter-occupied units/vacancy rate	279/36.7	--
Mobile homes	462	--
Vacant housing units	784	--
Units vacant for seasonal use	490	--
<b>Source: U.S. Bureau of the Census</b>		

#### 3.4.4.3 Seasonal Variation in Population

Although not as dramatic as in communities such as Nags Head, Hatteras Village does experience significant expansion of the local population during the warm months. According to the National Park Service, Hatteras expanded from a permanent population of 1,660 in 1990 to 4,010 during the summer of that year (personal communication 1992). Beach-going visitors comprise much of the summer population. Many visitors rent on a weekly basis; some stay for longer periods. There is also significant tourist activity resulting from visiting "weekenders." During peak season, it can be difficult to find a hotel room. Given the distance of Hatteras from inland populations, daily visitors are fewer, although many visitors may stay in Hatteras for one night as they journey to Ocracoke or other destinations.

One indicator of seasonal population change is Hatteras Inlet Ferry usage. This ferry provides transportation between Hatteras Island and Ocracoke Island and leaves from Hatteras Village. In 1991, 4,025 passenger vehicles were transported between the islands in January, the month of lowest ferry usage that year. July was the peak usage month in 1991; 46,508 vehicles were transported. Thus, in 1991, there was more than an 1,100% difference in service usage between the slow and peak months.

While summer and fall are busy, Hatteras often takes on the feeling of a ghost town in winter. Restaurants and stores close, fewer visitors are visible, and even permanent residents may vacate to warmer climes for part of the winter.

#### 3.4.4.4 Local Population Issues

Seasonal change in population is an important local population issue. Most revenue that carries the community through the long winter is generated during the summer months. The warm season brings persons from all over the state and country to visit this sparsely populated area, where local residents interact primarily within a system of close friends and family. As tourists come for days and weeks, locals inevitably interact with visitors. These interactions are rarely contentious, but observation indicates that the behavior of outsiders often is tolerated more than it is embraced. The revenue generated by seasonal visitors, however, is embraced. This assessment may seem unfair at first glance, given the friendly nature of many permanent residents, but true acceptance into the community is earned by many years of residence. Even persons who have stayed for years may sometimes be derided as merely outsiders who stayed on. One informant who had been living in the community for about six years offered the following comments:

It's socially hard to fit in. There are groups that have been here forever and newcomers have had a tough time fitting in. If they think they you're going to be around for five minutes, they're friendly. If they think it's a five-year thing, they don't want anything to do with you. But they'd help you out in a minute.

Long-term residence is a basic criteria in the development of individual and family status in the community. This situation has important social consequences. For instance, although some residents have expressed dissatisfaction about the accelerating level of development on Hatteras Island, an important and long-time Hatteras family drives much of the real estate market in the area and has generally supported housing development along the island. Some long-time residents respect the family and its decisions and therefore accept the kinds of change that result from the family's actions and decisions in the real estate business. Respect has accrued to the family as a result of the history behind the family name itself.

### 3.4.5 Economic Characteristics

#### 3.4.5.1 Economic History

Hatteras developed as a small seaport community early in the eighteenth century. Limited whaling, import and export of commerce and other maritime activities contributed to the early economy of the region. The Hatteras Inlet closed in 1764 and did not re-open until a major storm event in 1846 (Greenways, Inc. 1989:8). Little is known about the community during this period. However, it is known that during the Civil War, the community became an important and strategic location for the transportation of military personnel and materials.

The federal government maintained support for the community because of its value for the federal Lifesaving Service and, later, for the U.S. Coast Guard. The National Park Service also retains a presence on the island and continues to provide some employment opportunities to residents.

Charter and commercial fishing became economically important to the community after World War II and remain important sources of local revenue. Retail trade, food and lodging services, and other more strictly tourism-oriented services are also an important part of the local economy.



### 3.4.5.2 Local Business/Industry

**Commercial Fishing** Commercial fishing is a vital part of the local economy and lifestyles of many residents. There are at least 100 full- or part-time resident commercial harvesters. Many local commercial fishers are also involved in the charter-fishing business and, during the warm months, use their vessels and crews to transport recreational fishermen to the productive waters of the Gulf Stream. During the commercial seasons, the majority of these vessels fish in local waters, either in the Pamlico Sound or in the nearshore ocean waters along Hatteras Island. Workers in the commercial fleet and charter operations in Hatteras are almost exclusively male.

During the winter of 1992-93, there were roughly thirty-five drop net vessels working out of Hatteras. Drop nets are lowered into the water, released from the boat, and returned for harvest after varying periods of time in the water. Local drop net vessels are generally in the twenty-four to forty-six foot range and work in the waters immediately offshore the "north-" and "south-sides" of Hatteras Island; that is, the beach north of Cape Point to around Pea Island and the beach south of Cape Point to Ocracoke Inlet. Drop netters usually fish for gray or speckled trout and sea mullet between December and March (the fleet fished for trout into May this year) and spanish mackerel and bluefish in the summer. Butterfish and Pompano may also be landed in summer drop nets. During a certain period in the fall, usually October and November, this fleet will also pursue king mackerel.

In summer, only about ten boats fish with drop nets, but the commercial fleet is supplemented with about ten boats that hook and line fish for bottomfish, e.g., grouper and snapper, in about thirty to 100 fathoms of water. These boats fish from about May through September. There is also a summer flounder fishery in the Pamlico Sound waters immediately behind Hatteras Island north and south of Cape Point. Flounder are caught commercially primarily with swing nets -- nets that swing on anchor. Some fishermen use pound nets in strategic areas in the Pamlico Sound. Most of these are located directly northwest of the Frisco area. A jumping mullet harvest also occurs in shoaled areas of the Sound around the island.

There were also twelve hook-and-line vessels from Hatteras fishing for king mackerel during this past winter. This is a nearshore fishery occurring mainly in 100 feet or less of water. About five local boats join six or seven others, mainly from Wanchese, to work a lone-line dog shark fishery that is productive in both the winter and some warmer months. Other locally-important fisheries include crabbing with pots, and small-scale shrimping in the Pamlico Sound behind Hatteras and Ocracoke Islands. There are reportedly over 100 vessels involved in crabbing the Pamlico Sound area behind Hatteras Island. This season usually lasts from about February until the market prices fall some time in the summer.

An important aspect of the commercial fishing fleet in Hatteras is that, between the months between April and May, about thirty boats get involved in charter fishing in the Gulf Stream waters. Commercial vessels are used to transport recreational fishermen in pursuit of such

species as dolphin (mahi mahi), wahoo, king mackerel, the billfish species, amberjack and tuna. This can be a lucrative enterprise as a day charter can earn as much as \$600. This rate includes fuel, bait and other overhead costs, but a fair profit can be made regardless. Most fishermen develop a clientele over the years and depend on this source of income during the warm months when more money can be made chartering than commercial fishing.

Hatteras is the base of operations for five fish houses which buy locally caught seafood and distribute it to larger dealers, and local and regional restaurants. These facilities also typically sell to individuals. Some fishermen complain that the fish houses and dealers control the local market and make it tough to earn a profit. This situation reportedly has been the status quo for some years. Depending on prices in the region's markets, there may be some economic benefit in travelling to Wanchese to sell the catch. Some harvesters occasionally do this, but the trip entails a two and one-half hour voyage if shorebound passage is made at Hatteras Inlet. The small-scale commercial fisherman in Hatteras typically sells the catch to local dealers and deals with difficult market conditions. Tough local market conditions exist, despite the fact that the fish dealer is as dependent on what the fisherman who works the water catches as much as the price it brings when sold in the regional market and fishermen are often too busy fishing to get involved in developing new ways to market their fish. This dependence give the dealer more leverage. Nevertheless, the dealers and fishermen in Hatteras are typically well-acquainted and often have developed both social and working relationships. In some cases these relationships appear to reduce the desire of the fisherman to change the status quo in the market.

***Marine-related Business/Industry*** The existence of fish houses, marine supply stores, fuel, dockage and the nearness of Hatteras Inlet and the Pamlico Sound combine to make Hatteras a regionally important area for maritime interests. Many vessels stop in Hatteras Village during their voyages on the Pamlico Sound as a variety of marine-related businesses are based here. There are five seafood wholesalers based in Hatteras and one exclusively retail market. There also are four fish houses in Avon, two in Frisco, one in Buxton and two in Rodanthe. In Hatteras Village, there also are three marinas that offer dockage space for large and small vessels, water and power connections, and gas diesel fuel and repair service. Some local charter vessels are kept in the marinas. There are also public access boat ramps available for visitors who tow their small vessels to the community by trailer.

***Tourism Services*** Some local fishing guides are available to take surf fishermen to favorable spots along the Cape Hatteras National Seashore. Although the majority of visitors who come to fish drive their own four-wheel-drive vehicles, some visitors take advantage of the local fishing knowledge and equipment offered by fishing guides. There is also a Frisco-based flying service available for touring the area from above.

***Food Services*** There are six restaurants in Hatteras. The principal dinner fare at each is seafood. The area is known for quality seafood and local restaurants primarily sell locally-caught fish, although shellfish and shrimp may occasionally be imported from other parts of

the region or country. These facilities employ local residents throughout the warm months of the year. All but one of the restaurants close during winter.

**Lodging** There are seven motels in the Hatteras area, including a group of condominiums that are available for rent on a weekly and monthly basis. Rates are competitive with other lodging facilities on the island and range from about \$30 to \$80 per night. There are also numerous homes available for rent. Many persons own second homes in the area but rent these out for part of the year to assist in making mortgage payments. Typically, such home owners live inland, vacation at the beach for part of the year, and rent out their beach houses to visitors for whatever months they are able to find tenants. Summer and early fall rates are typically much higher than during the cooler months, as is the rate of tenancy.

**Medical Services** Hatteras has a regional medical center. Two physicians are available for routine and emergency care. The center recently added a helicopter pad to facilitate transportation of trauma and other emergency-care patients to regional hospitals. Such patients were formerly transported via the Billy Mitchell airport in nearby Frisco, a situation that often required patients to be transferred multiple times before flight off-island. Services in Hatteras are complemented by another small facility in Buxton, some eleven miles distant. One physician runs this facility, but is assisted by a visiting doctor from Nags Head. A physical therapist and a counselor also provide services on a part-time basis at this facility.

**Construction** There has been extensive new construction throughout the Hatteras Island area over the last ten years, primarily in the Avon and Buxton areas, although Rodanthe, Waves and Salvo have also experienced some degree of new construction. A series of large condominium and "time-share" housing was built in the Rodanthe and Avon areas during the eighties. A number of commercial structures, such as hotels and restaurants, have been built over the last five years in Buxton. Construction in Hatteras Village proper has been more residential in nature and more limited in degree than along most of the island. Parcels of land in the Village have been developed over the last ten years, including numerous single home plots and subdivision of land for the "neighborhood" style of development.

**Other Industries** A burgeoning industry in the general vicinity of Hatteras is real estate marketing and sales. Numerous agencies compete for business in the sale of land and property. A single real estate company owned by a long-time Hatteras family dominates much of the real estate market on Hatteras Island.

#### 3.4.5.3 Local Employment

**Public Sector Sources of Employment** The State Department of Transportation, Ferry Division in Hatteras Village provides a stable, year-round source of employment for roughly sixty residents of Hatteras Island. The ferry carries foot passengers, and passenger and commercial vehicles between Hatteras and Ocracoke Islands to continue S.R. 12. Roughly one-third of the ferry workers are residents of Avon. Ferry personnel work week on/week

off schedules. Thirteen workers are residents of Buxton, eight are from Frisco, and three workers, all vessel captains, are from Ocracoke. Only eight workers are residents of Hatteras. Employees say that hiring is based more upon whether the prospective employee is a member of one of the families that have held ferry jobs for a long time. Some employees work seasonally since the summer schedule includes more trips between Hatteras and Ocracoke than during the winter. The roughly sixty-person summer schedule staff is cut back to about forty in the winter. Seasonal staff are eligible for unemployment during the off-months, and many reportedly file during this period or work at whatever occupation they can find.

Federal public sector jobs include a few in Buxton at the National Oceanic and Atmospheric Administration, National Weather Service, and a greater number with the National Park Service which administers the Cape Hatteras National Seashore. Park administrators note that most NPS positions are maintenance jobs. Around fifteen persons work at the USCG facility.

*Private Sector Sources of Employment* A principal source of employment for residents of Hatteras Island is the tourism/recreation industry. This means that much employment on the island is seasonal. Late spring, summer and fall months bring hundreds of thousands of visitors to the Outer Banks -- many of whom occupy hotels and campgrounds, frequent restaurants, purchase craft items, groceries, gas, bait and tackle, and so on. For Hatteras Village, the warm season is vital to the economic welfare of the community, and the summer and fall months are peak periods for generating local business revenue and providing jobs for local residents.

Commercial fishing is also a locally viable occupation. There are small populations of commercial fishermen in the Rodanthe, Salvo area (about fifteen vessels), in Kinnakeet (Avon), and in Buxton, Frisco and Hatteras. Local fishermen believe the greatest number of fishermen reside in Hatteras, with fewer in Buxton, and fewer still in Avon, Rodanthe and Salvo. There are an estimated 500-600 part- and full-time commercial fishermen on Hatteras Island. Recreational fishing also provides seasonal jobs for crews on charter vessels, pier owners and operators, and owners/operators of bait and tackle shops. The businesses that support the commercial and recreational fleets also offer employment opportunities and the marinas in Hatteras provide work for about thirty persons.

#### 3.4.5.4 Seasonal Variation in Local Economy

In Hatteras, most revenue is generated during the warm months. Not all the revenue generated through house and apartment rentals stays in the community since many rental units are owned by persons living elsewhere. On the other hand, most rental homes are managed by real estate groups that are locally-based. Local restaurants, hotels, gas stations, and retail trade stores do most of their business between Easter and Thanksgiving.

There are three distinct "seasons." Relative to winter, spring is active economically and this season begins with the first sign of consistently pleasant weather or decent fishing. Significant visitorship is generally limited to weekends and holidays during this period, although some retirees and others may set aside days or weeks to visit Hatteras in spring. The most active season follows the seasonal closure of schools. Many hundreds of families visit Hatteras during the period June through August, seeking beach and ocean-related recreation. Area campgrounds and hotels do most of their business during this time of year and local restaurants and stores are continually busy. The fall months are also active as this is the prime fishing season, though it not as active as during summer. Most visitors who come to Hatteras in the fall come to fish. Surfing and windsurfing are also popular in the fall, and surfers are especially drawn to the Hatteras area during the fall months.

#### 3.4.5.5 Local Economic Issues

Perhaps the most important local economic issue relates to problems in the commercial fishing sector. Although seasonal tourism is critical to the economic welfare of Hatteras, fishing is an important mainstay for many residents during the less active tourism months. A small number of residents subsist solely on what is earned through fishing. Commercial fish harvesters in the area increasingly complain about the difficulties inherent in commercial fishing. Some believe that the future is bleak for fishing families on Hatteras Island. The main problems cited are: new regulations, which are perceived as too numerous, complex, and unnecessary; increasing competition with the recreational fishing sector; and increasing pressure from environmental groups to conserve the marine resource base. One long-time fisherman noted that such difficulties were really impacting the island's small-scale fisherman and that traditional knowledge of the area fishing was likely to be lost:

Guys used to follow their dads, but now they hit eighteen or twenty [years of age] and move on. They're not coming back . . . a small minority are coming back but they have a tough time too.

Whether fish harvesters in the area will adapt to changes in the industry remains unclear. Fishing productivity in Dare County has declined over the last ten years (see Coastal North Carolina Socioeconomic Study, County Studies 1993). If local commercial fishing continues to decline, an important part of the lifestyle of local residents and the local revenue it generates may be lost. On the other hand, recreational charter fishing, like commercial fishing, has also been an important part of the Hatteras economy and may end up replacing some losses in the commercial sector. Hatteras is known as a good place to charter a boat to get to the fishing grounds in the Gulf Stream waters off Cape Hatteras. While this is not year-round employment, lots of money can be made in charter operations between the late spring and fall months.

### 3.4.6 Locally Active Governmental Institutions and Services

#### 3.4.6.1 Governmental History

Little is known about the early history of Hatteras. A post office was established in the community in 1858. The establishment of a lifesaving station in the area in 1878 linked the community to the federal government, as did other federal actions such as the establishment of the Cape Hatteras National Seashore.

#### 3.4.6.2 Federal Government

The USCG has a facility in Hatteras and is active in the ocean and sound waters from Ocracoke Inlet to Pea Island. The National Park Service manages the Cape Hatteras National Seashore which borders Hatteras.

#### 3.4.6.3 State Government

The most important state government agency operating in the Hatteras area is the Department of Transportation Ferry Division. Located at the southern end of town, the facility provides an important source of permanent and seasonal employment to residents. Crew generally work their way into better positions through years of service. Some of the fleet's captains have worked the area for decades and have achieved status within the community as excellent navigators and mariners. The ability to negotiate the often treacherous waters between Hatteras and Ocracoke is revered among many residents. Some ferry workers commute from Hatteras to work on the Ocracoke-Cedar Island or Ocracoke-Swan Quarter ferries and Ocracoke residents may commute to work the Hatteras ferry.

#### 3.4.6.4 County Government

All of the towns on Hatteras Island, including Hatteras, are unincorporated. Government services in each of the communities are thus provided by Dare County.

***Law Enforcement*** Law enforcement services are provided by the Dare County Sheriff's Department. The County Sheriff resides in Hatteras and commutes to the county seat at Manteo.

***Fire Prevention and Suppression*** Local fire prevention and suppression services are provided by the Hatteras Volunteer Fire Department. Dare County also may respond to emergency situations that call for additional assistance.

***Emergency Medical Services*** Provision of emergency medical services was enhanced in 1992, when a helicopter pad was installed at the community medical center to allow transportation of critical care victims to hospitals in northeastern North Carolina and southeastern Virginia. Dare County is also developing an enhanced emergency response 911 system that enables more effective response by county agencies responding to emergency situations. The system involves development of information about the environment to which emergency workers are responding. For instance, residents are being asked to provide their medical histories so that emergency responders can anticipate patient needs. These data are being incorporated into a county-wide database.

***Public Works*** Public works services are also provided by Dare County. These include routine street maintenance, county facility maintenance, and response to emergency situations requiring heavy or specialized equipment. The services of the county's public works department is invaluable during storm events when flooding, power outages and other problems occur.

***Education*** Children in Hatteras attend Cape Hatteras School in Buxton. This kindergarten through twelfth grade facility provides educational services for much of Hatteras Island. Children under the age of sixteen are generally transported by bus, although some parents may drive their children to school. Older students maintaining driver's licenses often drive their own vehicles or their parent's vehicles to school. The school is roughly twelve miles from the center of town.

Cape Hatteras School is an important arena for tying together all residents of Hatteras Island, both students and the adults who attend school functions. In the past, the various communities on the island have been reported to have tendencies toward self-absorption. Rivalry and these tendencies related to the fact that communities each had their own schools. Today, attendance at Cape Hatteras ensures that kids from all communities interact on a daily basis, and this reportedly tends to minimize friction between communities as kids grow older.

***Social Services*** Dare County's social service programs are not widely used in Hatteras. The distance of the community to county offices and a tradition of self-sufficiency on the part of locals have minimized the need for this form of governmental service. There is some use of the county's older adults programs, although this too is limited.

#### 3.4.6.5 Community Government

Hatteras Village is unincorporated and therefore depends on Dare County for government services. The Hatteras Civic Association provides a local organization for implementing programs and activities independently of the county. In a sense, the Civic Association serves as a means of informal local government. Active members get together to discuss topics of importance to the community and may relay these needs to the county. The Civic Association may also generate funds to meet its own needs or solve its own problems. For

instance, the Association has worked to develop a maritime museum in the community. Fund-raising events are common.

#### **3.4.6.6 Local Governmental Issues**

A variety of government services are provided on Hatteras Island, though in comparison to more densely populated areas in the state, services here are considered by some to be relatively inadequate. Adequacy of services, however, is difficult to measure since, as noted by Hegenbarth and Shaw (1984:68), "the level of services provided is a function of both minimum public safety standards and the demands of residents." Both of these factors appear to be changing rapidly in the 1990's as the population changes in both number and composition. Since many long-time residents of the island value self-sufficiency and independence, services among this sector of the population are typically considered adequate or are not considered at all. However, residents in-migrating from other areas are accustomed to, and expect, higher levels or quality of service. Further, a general increase in the number of seasonal and permanent residents may eventually require an upgrade of services even to stay within legal minimums. This situation has implications for government and taxpayers alike -- county and state governments must develop plans, allocate funds and deploy facilities and personnel to meet new demands. The situation is somewhat different in Hatteras Village proper, where population change has not been as drastic as in some of the other communities and where long-time permanent residents are not making extensive demands of the county.

#### **3.4.7 Physical Infrastructure and Land Use**

##### **3.4.7.1 Infrastructure History**

Hatteras remained secluded for most of this century. Access to the area was generally by boat or by hardy automobile. While Hatteras originated as a seaport community adjacent to a navigable inlet, access between the ocean and the sound was long constrained by shallow bottom conditions. The Army Corps of Engineers dredged Rollinson Channel in 1936, a process which led to development of a local fishing fleet that could exploit both Pamlico Sound and the Atlantic Ocean (Young 1983:87).

A paved road finally connected the community to the mainland via the rest of the Outer Banks in the 1950's. This led to a gradual increase in tourism to the area and more social communication with areas outside the community.

A private ferry service operated to connect Hatteras Island with Ocracoke following World War II. The State Department of Transportation assumed responsibility for this service in 1957 and thus furthered the connections between Hatteras and other Outer Banks communities and the mainland.



### 3.4.7.2 Physical Infrastructure and Related Issues

**Marine Facilities** Hatteras is the location of three private marinas which makes the community a favored stop for mariners passing along the Outer Banks region. Two large marinas and a smaller facility are located on the Pamlico Sound side of the community. The State Department of Transportation vessels are moored at the state facilities not far from Hatteras Inlet. According to Young (1983:86), Hatteras "boasts the most modern and extensive facilities to the cruising boater on Pamlico Sound." Although this is now a dated quote, no other community in the region has developed facilities to surpass what is offered Hatteras. Many permanent residents maintain their vessels on the soundside of the community or on the creeks and cuts that form a network of waterways through town.

**Transportation System** Hatteras can be reached via State Route 12 from points north and south. Much local traffic occurs between Hatteras and the other Hatteras Island communities, especially Buxton, eleven miles north, and Frisco, three miles north. Travel to the community from points south requires a forty-minute ferry ride from Ocracoke Island on the state-operated ferry system. Route 12 continues south along Ocracoke Island, where a two-hour and fifteen-minute ferry ride is required between Ocracoke and Cedar Islands to reach the continuation of 12 in Carteret County.

Hatteras is also accessible by water. Travellers may reach the community from the west via Pamlico Sound and from the south and east via the Atlantic Ocean at Hatteras Inlet. Water travel is also possible within town itself, as numerous creeks and finger-like water bodies flow from the Pamlico Sound through the town and provide an effective transportation system for residents with boats. These are especially important to fishermen who can moor their vessels close their places of residence. The creeks and "cuts" of Hatteras are often important landmarks and residents may refer to certain areas as they are situated in proximity to "the cut," for example.

There is no public transportation system. Most residents own and drive automobiles to their places of employment or to neighboring villages. Some residents get around the community, and the Outer Banks generally, by boat.

The local road system is in good shape most of the year, although ocean overwash and poor weather conditions in the winter tend to crack and create potholes on State Route 12. Although a system of paved roads does serve the interior sections of the community, a fair number of houses are still accessed by dirt roads.

**Water and Sewer** Water availability is a critical issue for all residents of Hatteras Island. This issue is discussed in subsection 3.4.8.2. Disposal of waste water is also an important issue. Sewage is currently disposed through private septic systems. Because the soils of Hatteras Island are highly permeable, some contamination of superficial aquifers, local water bodies and shellfish beds is likely if populations continue to increase and alternatives to local

soil absorption methods are not developed. Solid Waste disposal is implemented by Dare County. Waste is transported up the island to the mainland facility at East Lake.

**Energy** Carolina Power and Light provides energy for residents and facilities in Hatteras. This company provides energy for all communities of Hatteras Island.

**Communications** Carolina Telephone is the principal phone service carrier in the area. Regionally important radio stations are WOBR-AM and FM, WVOD-FM and WRSF-FM. The commonly read newspapers are the *Virginia Pilot*, the *Daily Advance* and the *Raleigh News and Observer*. Local papers include the *Coastland Times* and the *Hatteras Monitor*.

**Infrastructure Issues** Important infrastructure issues for Hatteras Village include the maintenance of State Route 12 and the continued operation of the Bonner Bridge spanning Oregon Inlet. While the road suffers periodic overwash in the immediate Hatteras Village area, overwash up-island is even more frequent. This situation and the uncertain future of Bonner Bridge could reduce the number of visitors to the area. This occurred when the bridge was hit by a barge in 1991, and traffic was reduced to what could be carried by ferry.

#### 3.4.7.3 Land Use Patterns and Related Issues

**Land Ownership** Although many small parcels of land in the community are owned by permanent residents and part-year residents, most of the land available for development is owned by two families whose names are synonymous with early lifesaving on the Outer Banks. Exchange of real estate usually involves the sale of existing houses and lots and not newly-parcelled land. Land in Hatteras has been divided and sub-divided over the years largely without the intercession of government planning and zoning. Today, land is at a premium. Of all the communities on Hatteras Island, however, Hatteras Village has the least amount of land available for development. In the mid-1980's there were 274 developable units<sup>1</sup> available for development in Hatteras (Hegenbarth and Shaw 1984).

**Zoning and Land Use** Most of Hatteras is designated for residential use. Areas designated for commercial use lie along Highway 12 and along the waterfront on the soundside. There are numerous hotels and eating establishments along the highway throughout town. Land situated farther from the road is generally zoned as residential.

**Hazard Areas** The oceanfront can be a particularly hazardous area in Hatteras. Hatteras is situated at a low elevation which heightens the likelihood of flood damage by storms to other parts of the community as well, a possibility heightened during periods of high tidal flow. Ocean overwash is also a problem during certain times of the year. In December, 1992,

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<sup>1</sup> A developable unit in Dare County is defined as a lot size with a minimum of 15,000 square feet for a single family dwelling in areas in which individual septic systems and public water supply are used and 20,000 square feet in areas with individual septic systems and wells (Hegenbarth and Shaw 1984:10).

intense storms offshore combined with high tides to wash sand and debris over Highway 12 along the northern border of town. In August 1993, areas traditionally thought to be safe for storage of vehicles during hurricanes were inundated during Hurricane Emily which passed just offshore.

The highway speed limit is adjusted to protect the residential nature of the community. Several sharp curves in the community are quite hazardous if negotiated at high speed.

**Visual Considerations** Many of the homes on the western side of Hatteras overlook Pamlico Sound including large vessels moored in the local marinas. Several houses and two motels enjoy a view of the oceanfront. Because many of the newer homes are built on pilings to avoid water damage during storm events, the views of older homes built closer to ground level are sometimes blocked by the new construction. This is a more cogent issue in the neighboring community of Avon, where new construction is more frequent and where building height restrictions have been a divisive issue among new residents who seemingly compete for a view of the ocean.

### 3.4.8 Social and Cultural Characteristics

#### 3.4.8.1 Sociocultural Aspects of the Community

**Physical Appearance** Hatteras is the southernmost community on the Hatteras Island section of the Outer Banks, about twenty miles from the mainland across Pamlico Sound. Most of the island is very narrow, no more than half a mile across. The west side of the island is marsh, the east sandy beach, and the center is dunes and hardy, salt spray and wind-shaped shrubs and grasses. The island widens to about three miles at Buxton Woods, an extensive maritime forest. The island is also fairly wide at Hatteras where the north-south axis is about a mile.

Travelling south into Hatteras along Route 12, one may notice some houses along the outskirts of the town, but housing density increases within town limits. Hotels, restaurants and other commercial facilities are situated adjacent to Route 12. These are sparsely distributed, the exception being the more commercialized areas on the soundside. Housing units visible from the main road are generally beach cottages that have been built on tall pilings to avoid damage by tidally-driven floodwaters and storm waves. There are some houses along the oceanfront on the southeast side of town, but the majority of the more permanent homes are hidden from view behind dunes or within patches of live oak, cedar and other indigenous trees and shrubs on the northern end of town. The soundside waterfront on the western end is occupied by marinas, restaurants and other commercial buildings. In addition, there are five stores that provide beach items, fishing tackle, bait, beer, food items and gasoline. The Volunteer Fire Department is also located along Route 12 where the road begins to curve southward across from the town circle in the center of town. Dunes and vegetation on the southern part of town hide summer cottages and

permanently occupied houses. The ferry terminal is located at the southern terminus of Route 12.

Hatteras Island is indeed an Atlantic Ocean island; visitors often report that it *feels* like an island. This feeling can get intense to visitors and residents alike when tropical or winter storms hammer the area with high winds, flood tides and giant waves closing the road to traffic and preventing evacuation. In a more peaceful sense, the island's distance from any significant population center provides an excellent situation for stargazing at night. The expansive beaches, dunes and marshes that comprise Hatteras Island and surround Hatteras Village provide a scenic natural setting during the day.

Local architecture is a mixture of old and new, and ranges from eighteenth century houses occupied by descendants of early fishing and lifesaving families to recently constructed beach homes seasonally occupied by families from inland locations such as Raleigh or Greenville. There are also numerous trailer homes and trailer parks in the community.

The community contains a network of small creeks and estuaries. Many homes back up to these water bodies and many fishermen are thus able to keep their boat in front of their houses.

Some residents work hard to maintain their yards and houses, but others may let things go a bit. Some yards are full of old fishing nets and supplies, rusty parts, old boats and motors, and fishing buoys. Some of the older yards contain shacks and storage sheds.

*Living in Hatteras* Hatteras remains a relatively secluded community. Among many of the permanent population, this seclusion is savored, and "peace and quiet" is often valued more than the amenities available in more populated areas. Many younger residents, however, feel that, outside of school functions, there aren't many things to do, and the island's out-of-the-way location is to blame. For many years there was a movie theater in Avon, but this is no longer in operation. Cable television and VCRs now provide the primary source of visual entertainment to residents and, as elsewhere in rural (and urban) areas of the country, have encouraged behavior that minimizes social interaction. One resident referred to Hatteras about ten years ago as "Hatteras B.C." -- before cable -- and cited the importance of the technology in exposing the population to a wide variety of programming and less need to interact to find mental stimulation. The informant also felt that "cable" had increased the amount of regional media exposure about the island as a vacation or second home destination, and was therefore partially responsible for increased development of the island.

The lure of television notwithstanding, permanent residents find that a sense of community that is often obscured during summer and fall months resurfaces with more vigor during the winter. Residents say that the sheer number of new persons in the area each summer season makes at least visual interaction with friends and acquaintances somewhat less consistent than in winter. This is not always the case, however, as many families and friends do get together during the warm months.

Daily life in any community naturally means different things to different people. There are, however, identifiable behaviors that are common to certain groups of permanent Hatteras residents which become more noticeable during the winter. Fishermen get to work early in the morning, often before sunrise to meet at the docks and ready for the day's work. Gear is readied, ice is stowed, and the vessels are fueled. Coffee and some sort of breakfast is consumed and fishermen working nearshore or not working at all may meet at one of the cheaper restaurants for lunch later in the day. The weather dictates the style of clothing, but foul weather gear is the norm during the winter when fishermen often work in bitter cold winds and rough sea conditions. Some ferry workers also may be seen in the early morning, travelling to and from their jobs at the ferry terminal. More residents are visible as the early morning passes and the school bus makes its rounds and people drive their cars or trucks to work or to other destinations along Hatteras Island or the mainland.

When locals meet by chance or purpose at the bakery, the grocery store, or at one of the convenient stores, there is usually a friendly exchange of words. Virtually all permanent residents of the Village know all other residents, and verbal acknowledgement of the other is common in all informal social interaction. Residents who have grown up in the village or on the island possess a different, broader set of information about the social history of the permanent population of the area and this is reflected in conversations between locals. That is, locals generally know who has lived here a long time, who is married to whom, where so-and-so comes from, what so-and-so did ten years ago and last week, etc. These issues often form conversation that is meaningless to visitors or new residents. This situation is true of all small towns. Still, in Hatteras there is a strong link between community identity, the history of the area and the environment. Conversations about who is who and who did what are often based around beliefs that the longer one has stayed on the island, the more genealogical roots one has, and the more bad weather and tough times one has endured, the more one can be considered a "true" Hatteras Islander.

Some commercial fishermen and other residents have a reputation for being "wild," that is, for drinking heavily, fighting, using drugs and so forth. This is a fair characterization of a small part of the population but it does not describe the norm. The average citizen is fairly conservative, works steadily, and many go to church on Sunday. Illicit or illegal activities occur but are often accepted, albeit ruefully, or go unnoticed by the community. Residents appear to value independence and in many cases this translates to minding one's own business.

Outdoor recreational activities are important to residents. Locals also enjoy activities such as walking or sunning on the beach, surf fishing, surfing, walking and the like. One does not see locals out jogging on a regular basis, as is typical in many urban and suburban areas of the state, and formal sports activities are rare since there are few recreational facilities in town. The beach itself is an expansive recreation area and residents are seen throughout the year driving often thoroughly rusted four-wheel drive pick-up trucks along the surf-line, looking for schooling fish, or perhaps good waves to surf.

In Buxton there is a group of avid surfers, some of whom ride waves on a year-round basis. The group is "clannish" and often do not take kindly to the thousands of surfers who come to surf here. The Hatteras Island area is the best place to surf on the East Coast as the ocean topography is ideal for good waves. Hurricanes and other storms offshore may spawn beautiful spindrift surf not unlike medium surf conditions in Hawaii. Surfers are drawn here from all over the East to surf spots like the "Lighthouse," "the pit," and "ramps." Surfing can be serious business when the waves are big, and locals discourage visitors from interfering while they surf the best spots. This territoriality can be explained by considering that locals who may surf all winter long with no crowds in water as cold as forty degrees are seasonally confronted with hundreds of "outsiders" who often do not respect their dedication, knowledge and years of residence there.

Some bad feelings also have developed between non-surfing permanent residents and visiting wave riders. A campground owner remarked:

If I see a carload of surfers from New Jersey pull in, I tell them  
I won't rent them a spot. I've had too many bad experiences.  
They don't respect property, they don't respect nothing.

Windsurfing or sailboarding is also common along Hatteras Island. Enthusiasts in this sport contribute significantly to the local economy. Unlike many surfers who may subsist on peanut butter sandwiches and beer, windsurfers are often affluent and can afford to dine at local restaurants, or buy expensive sailing gear at the local sailboard shops. One sailing spot along the island is particularly well-known. "Canadian hole" was so named for the thousands of Canadians who migrate to the spot to sail throughout the warmer months.

***Environmental Values and Perceived Threats*** The natural environment is an important element of life in the community. The beauty of the area is a motivation for many to live here. Residents typically report that experiencing the peace and natural beauty of the island - its sunsets, favorable weather, and clean water -- are essential to enjoyment of life, and that events and processes that threaten the environment are to be avoided. There is also a link between aesthetic values, use of the environment and the economics of that use. Fishermen, for example, talk about the beauty of the sea and how the ocean environment of the offshore waters is a "wilderness" like any other. Fishermen also talk with respect about the power of the ocean and its fearsome beauty. Values of this nature are associated with an underlying reverence for the ancestors who also lived in constant contact with the powerful forces of the Atlantic Ocean, earning their living directly or indirectly from the sea.

Perceptions about the physical environment of the Hatteras Island area vary widely both for individuals and across groups of residents. Like persons everywhere, individual residents view and value their natural surroundings differently, depending on the subject of interest, their experiences with the local surroundings, the time of year, their particular biases and so on. Groups of residents are more likely to be aware of certain parts of the natural

surroundings than others and may therefore be more likely to share ideas about those components. But perceptions about the surroundings vary widely even within specific social groups. For example, commercial fishermen have a better understanding of the offshore ocean environment than persons who work on land, but the kind of fishing that is done offshore may directly influence perceptions. Bottomfish fishermen in Hatteras, for instance, are more aware of a given area's underwater topography than fishermen who harvest fish from surface levels using a net.

Regardless of one's occupation or experiences, natural beauty does abound on the island; it is difficult not to notice. When the summer heat abates and the first cool, fall air settles in, the marsh grass turns a shade of orange, and contrasts with a deep blue sound and ocean. Thousands of seabirds migrate over the ocean, and Canadian and snowy geese are heard overhead. Dolphins jump above the surf, and whales may be seen offshore. The air smells of fish and the surf zone flashes as schools of bait fish flee from snapping blues and spanish. At night, the relative absence of light on an island situated many miles out in the Atlantic affords a clear view of the galaxies, shooting stars and planets. The morning sun breaking through the clouds of an approaching cold front may illuminate flashing patches of ocean on the distant horizon. While these are not quantifiable factors in assessing the environmental values of residents, it is this kind of natural beauty that many residents and visitors describe when asked what it is that draws or keeps them close to the island.

Hurricanes are considered the most potent threat. Long-term residents have seen hundreds of bad storms and recognize the power inherent in the major hurricane. Although there is a tradition among the more stoic of residents to stay on the island during bad storms, one elderly male informant admitted that:

After I saw what Hugo did down in South Carolina, I don't know. I don't think I'm going to stick around next time.

***Major Changes of the Last Decade*** The most significant change occurring in Hatteras over the last ten years has been population growth on Hatteras Island generally. In Hatteras Village proper, it has not been as dramatic as in other island communities. Growth on the island generally, however, has had implications for life in the village. Some residents perceive that more people may cause pollution. There is also a feeling that the physical changes that have occurred up-island may infiltrate Hatteras. For instance, the construction of the island's first large chain grocery store in Avon brought resentment to residents who felt that this was a sign that the old ways of island living were disappearing. The grocery store in Hatteras has been managed by the same family since the mid-19th century. Residents express anger that this could be put out of business like the small grocers in Avon, should such a chain grocery store be built in Hatteras. One informant, a young housewife, felt that the local grocery store was already feeling the effects of lost business:

When it moved in, my friends refused to go . . . That store hurt private enterprise, hurt the small store up there -- they went out of business. It's hurting the Red and White here. My husband was happy, though -- he felt it would increase competition in the area. There are also a lot of needy people around here and they can save money up there . . . I go for the variety.

Growth on the island is feared for the negative impacts it might bring, but residents also recognize that some good might accrue to them in the form of more amenities. People don't want their own community to get too crowded but it is acceptable to many if only positive impacts reach the Village.

***Socioeconomic Status*** There are notable differences in financial status within the community. Many commercial fishermen are struggling to make a living. They work long hours at a dangerous occupation that is subject to the whims of nature, and often supplement their income with subsistence catch and additional employment outside of fishing. Many of the residents who work during the tourist season earn small wages and draw unemployment when the season is over. Meanwhile, a few fishermen have done very well financially through commercial fishing. Some business owners both in the fishing-related sector, e.g., marina owners, and restaurateurs, have also done well, as have the principal realty company owners. The financial status of the general population, however, appears to reflect conditions in Dare County generally, where residents on average earn almost \$5,000 per year less than the average North Carolinian.

***Seasonal Differences*** There is notable seasonal change in the lifestyles of Hatteras residents. In winter, Hatteras shows its social structural "skeleton." Tourists are gone and residents endure the cold winds and weather, which often prevents residents from taking part in the recreational activities of the warmer months. Most stores, restaurants, and hotels shut down. Only the local grocery store, two or three gas stations, the hardware store and some marina facilities remain open throughout the year. Some permanent residents may vacate for periods of time during the winter. Social alliances are exercised during the winter as visiting and interdependence become more common, although some locals tend to keep to themselves.

Some community activities are organized during the winter and often constitute a focus for residents who may need "something to look forward to" during the long season. The Christmas Parade, for example, is an important local event in early winter. Winter, while long and cold, is nevertheless enjoyed by many residents who like the solitude of the island, the stormy weather and the challenges that winter brings.

***Local Fish Harvesters*** Despite the cold weather, fishing can be good in winter and local fishermen are often seen in their yards hanging their nets, fixing gear and otherwise readying for fair weather fishing trips. It is not possible to fish during many days of the winter since



heavy seas and winds are common. Foul weather is always followed by fair, however, and cold clear days with northwesterly winds are as common as the stormy winds from the east.

Fishermen here are a tough breed and they respect each other for their willingness to "go outside" during rough weather and sea conditions. While fishermen in Hatteras often respect each other, they do not necessarily get along admirably. Life in a small island town places locals in close and ongoing contact with each other, and if an event occurs to cause serious friction between individuals, some hard feelings may be retained. Some local fishermen thus keep to themselves to avoid bringing bad feelings back to the surface or to create new ones. On the other hand, local fishermen will generally stick together and help each other out in times of need, despite differences. Hurricanes are one event that seems to bring the community of fishermen together.

When at sea fishing for some days, it is not uncommon for fishermen's wives to get together for social activity. Social networks within the fishing sector of the community thus are evident both at sea and on land. A "fishermen's auxiliary" has been developed over the last few years and is now an important forum for communicating the needs of the town's fishing families. The group was organized by fishermen's wives to protect the interests of commercial fishing in the area. The Hatteras group draws membership from throughout Hatteras Island, including women from Hatteras, Frisco, Buxton, Avon and Rodanthe.

***Property Values*** On Hatteras Island the trend of second home ownership appears constrained only by the availability of land and fresh water. New development means more people on the island on a seasonal and, increasingly, a year-round basis, more supportive public and private infrastructure, more amenities and so on. Although Hatteras Village has to date witnessed less development than other nearby communities, it is nevertheless affected by the trend growth on the island as more and more people pass through or stay in the village.

Local residents often see outsiders as wielding the potential for change to the tight-knit community and traditionally low-key atmosphere of Hatteras and Hatteras Island generally, yet welcome them as a source of revenue. This acceptance of second homeowners, however, is increasingly minimized as a perception that new, expensive second homes are driving up local realty values, and thus, tax rates. One informant stated that:

Fairly wealthy newcomers will buy a house here and rent it out until the mortgage is paid for. They'll come down and vacation every now and then, but they don't really live here. But a lot of local people who do rent can't afford the rent being asked, and some of the people who live here and own their own houses can't afford to pay their taxes now [elderly housewife].

One factor related to property values in Hatteras is the location of federal land adjacent to the community. While many residents resisted the institution of the Cape Hatteras National Seashore in the mid-1970's, they now realize that the open spaces afforded by the park

increase their property values and also keep the area from "getting over-developed like in Nags Head." This situation is beneficial to those who wish to sell their homes but may further increase tax rates for residents who remain in town.

***Natives Versus Newcomers*** In many ways, there are sub-communities within the community of Hatteras. Permanent residents often share a definition of the "real community" as being comprised only of those persons who live in town on a year-round basis. This perspective holds that true membership is something that comes with time and requires, among other things, winter residence, and the more winters the better. Indeed, many permanent Hatteras residents ascribe social status partly on a continuum of length of residence, genealogy, and affiliation with local heritage. Persons with second homes in Hatteras may have different ideas definitions of community that, naturally, includes themselves. Regardless of whether these persons are accepted into the social circles of the population of permanent residents, their seasonal presence expands the community. Vacant houses become occupied. Church gets more crowded. The traffic gets heavier and the ferry gets busier. Some non-home owning visitors come to Hatteras for the same part for the year every year and also change the definition of community.

Despite the status ascribed to long-term residence by themselves, locals recognize the economic importance of the part-year resident and visitor. They know they need the seasonal guests and the thousands of sightseers, beach-goers, recreational fishermen, windsurfers, surfers and other ocean-users who come through or to the community.

***Religion/Churches*** There are two denominations based in Hatteras Village. The United Methodist Church has about 365 registered parishioners, some of whom are not permanent residents but rather seasonal visitors and second homeowners. The Hatteras church has a sister church that covers the area from Salvo to Buxton. The Hatteras church has an active men's group that performs service in the community. There also is an Assembly of God church in the community. This parish is smaller in size but draws a more local membership. Church is an important social gathering place for residents, and Sunday service, weddings and funerals draw persons of like denomination together throughout the year.

***Clubs, Service Organizations and Other Voluntary Associations*** The Hatteras Volunteer Fire Department is at the ready to respond to emergency situations occurring anywhere on Hatteras Island. The department also is an important avenue for social interaction, and the department frequently sponsors picnics, family dinners and other community functions.

***Interest Groups*** A vocal interest group in the Hatteras area is called "Friends of Hatteras." The Buxton-based group was organized to preserve Buxton Woods and the water supply that underlies the forest. A women's fishery auxiliary is active in the community, and seeks to preserve the commercial fishing industry in the area. The Hatteras Business Association also is active in town and promotes tourism and new business ventures.

### 3.4.8.2 Issues of Local Importance

**Commercial Fishing** The health of the commercial fishing industry is a particularly cogent issue in Hatteras. Many fishermen believe that the industry is on its way out as a result of increasing government regulations, competition from the recreational fishing sector, and a perception of the general public that commercial fishermen are to blame for problems with the living marine resource base.

Local fishermen often believe that they are an important part of the region's economy and that they provide a quality source of protein to the dinner tables of families around the nation. Some feel that there are plenty of fish in the ocean and that regulating agencies such as NMFS and DMF have overestimated problems with the resource base. Some say there is a possibility that the waters are overfished but that such is necessary to make a living. One commercial fisherman felt that the fish dealers drove the market and that their taste for profit necessitated overfishing:

"It's the dealers' fault. People have to overfish to make a dollar. We're taking all the hits but really we're just trying to get by, it's not greed. No fisherman around here ever got rich. The dealers drive the market, they've got a monopoly here that's impossible to break."

Some argue that if there are problems in the stock it is due to no fault of their own, but rather such problems are the result of pollution of rivers and sounds where juvenile fish are spawned. Many also feel that public pressure on the government to continue escalation of fisheries regulations is being generated by environmental groups or recreational fishing organizations that take extreme views on conservation. Locals also claim that since anyone can acquire a commercial fishing license, and all reported catch is registered against the quotas used by regulating agencies, harvest figures include catch by persons who are not really commercial fishermen, but rather persons who work in other fields and fish for a small percentage of their time and income.

Government regulations on the fisheries are said to be complex and always changing, and therefore hard to follow. Fishermen believe the regulating agencies could be more involved with local harvesters and should perhaps set up a regional office on Hatteras Island. It is said that this would make it easier for locals to understand and obey regulations.

The struggle between commercial fishermen and the recreational fishing sector is worsening. In Hatteras, charter fishing is not the issue, as many commercial harvesters work the charter industry during the summer and fall months. Issues related to fishing in the nearshore waters. The recreational sector, which includes tackle shop owners and other permanent residents, as well as visiting anglers, is increasingly seeking to push the commercial harvester away from the beach. A widespread perception exists among this sector that

commercial fishermen take more than their share of fish in the surf zone using nets, and that this is diminishing the success of the recreational angler, and by extrapolation, the health of the entire tourist industry. Legislation may eventually require that commercial fishermen be restricted to certain areas of beach as is now the case in the Nags Head area.

In most cases, commercial fishermen on Hatteras Island struggle to make a living. The work is hard and the hours are long. It is a constant effort to maintain the vessels and gear necessary to catch the fish. Market prices are not rewarding. Most barely break even. Yet, a sense of independence that comes with working on the open ocean or sound keeps many in the business. More than the money that can be earned on the water, it is this sense of independence and local valuation of the fishing way of life that concerns people, as the community meets the twenty-first century and increased pressure on the ocean's living resources.

***Erosion and Transportation*** Barrier islands like the Outer Banks continually shift under the pressures of wind, tide and wave action. State Route 12 has been re-rerouted numerous times over the last decade, as overwash has forced the State of North Carolina Department of Transportation (DOT) to manage the needs of travelling tourists and residents. Certain areas of the island are more prone to flooding and overwash than others. The "S-turns" area north of Rodanthe is one problematic area and some island residents believe that a new inlet will form here in the near future.

Some residents don't really care too much about the health of Route 12. They have lived here for many years, have seen the road closed countless times, and believe they would do just fine if the road were permanently lost. Others, usually those with a stake in the tourist business, fear temporary or permanent loss of the road. When the bridge spanning Oregon Inlet was closed after a barge crashed into it two years ago, many business owners suffered during the six months it was out. But many residents report that they enjoyed the situation and that it reminded them of the "old days" when the island was less crowded and "people did for themselves."

***Water Availability and Development*** Hatteras Island has a major problem with availability of potable water. As population on the island increases, the water supply is diminished and is eventually contaminated with intruding salt water. Remarking on the water situation, one householder noted that:

Hatteras has the worst water. I won't drink it. Everybody has a filter. During summer, it is used up so fast that it really becomes a problem.

The Cape Hatteras Water Association currently pumps, treats and distributes water from the aquifer under the Buxton Woods area, a maritime forest about ten miles north of Hatteras Village in Buxton. Although the aquifer is highly productive, all of the communities of Hatteras Island may eventually depend on it. Thus, population growth may ultimately be

constrained by water availability, since the aquifer is believed to be able to recharge itself to sustain a population between 21,000 and 34,000 people (Hegenbarth and Shaw 1984). Part of the forest is privately-owned and an environmental preservation group has been formed to encourage land owners to resist development. The group is seen as extremist by many residents, but since some of the members are respected long-time residents, outward friction is mitigated.

***The Maritime Museum*** A local effort was undertaken in the mid-1980's, mainly through the efforts of Hatteras Civic Association, to construct a museum that would:

provide the citizens of the United States a resource that would enhance the knowledge and understanding of the maritime history associated with the North Carolina Outer Banks (Greenways, Inc. 1989).

The museum was to be located near the ferry facility on the south end of town. A feasibility study funded by the state was completed to assess the project and to determine the feasibility of locating it upon six acres of National Park Service land. A Memorandum of Agreement is sought to allow a thirty-year renewable lease. The effort also received financial support from a drive to sell special North Carolina license plates. The museum took a blow when artifacts from the U.S.S. Monitor, a Civil War shipwreck located off of Diamond Shoals, were loaned to a museum in Norfolk instead of the prospective museum. Development of the Hatteras museum was further complicated when another party sought to develop a maritime museum near Oregon Inlet. This effort was abandoned, however, and is no longer a factor.

Currently, the Graveyard of the Atlantic Museum Committee awaits federal funding through reauthorization of the Marine Sanctuaries Act. A sum of \$250,000 is likely to be awarded to the project, although \$800,000 was originally sought.

Advocates of the museum feel that such a facility is critical to the welfare of the area. They perceive that the shipwrecks in the offshore waters are a national treasure of themselves, but also symbolize the "heritage of Hatteras Island" as a group of communities historically linked to ocean and island life. One member of the museum committee stated:

We have something unique here. We need to preserve the heritage of the area. Change is happening so fast and it's all because of the almighty dollar. I mean we need tourists but there has to be a limit. I think the museum will bring people here but it will remind them of the way life here was, the way it should be . . .

### **3.4.9 Summary**

Change associated with growth is the major hurdle for the community of Hatteras. Despite the fact that there is not a great deal of land available in Hatteras Village for further development, there is room for growth on Hatteras Island generally. Growth anywhere on the island has implications for Hatteras. It means more traffic, more tourist-related business, more stress on existing infrastructure, and more pressure on the commercial fishery. While the community remains unincorporated and therefore lacks some of the planning power that it might otherwise possess, it does have some degree of informal government, and considerably more organization than the other communities on the island. This situation may empower the community to effectively respond to the changes that appear inevitable in the upcoming years.

## **3.5 OCRACOKE**

### **3.5.1 Introduction: Ocracoke and the Case Study Communities**

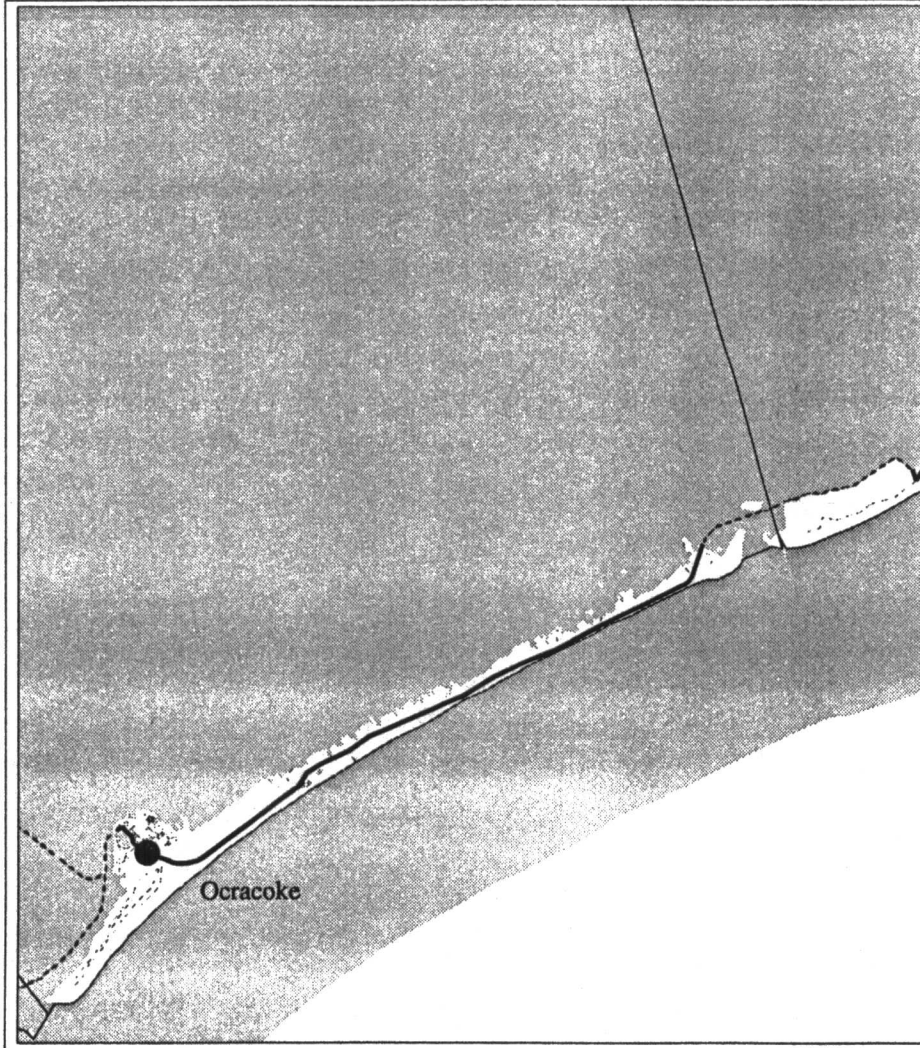
Ocracoke village lies at the southern tip of a low, sandy island stretching southwest below the promontory of Cape Hatteras, to which it was joined until 1845, when a storm formed Hatteras Inlet. Nearly ninety percent of the island is part of the Cape Hatteras National Seashore, including some sixteen miles of pristine, undeveloped beach, dunes and marsh. About 700 permanent residents live in the village which surrounds the dredged harbor of Silver Lake, a popular anchorage for both commercial and recreational vessels. Although the small, remote community has traditionally existed as a fishing village, in the last two decades it has developed into one of the premier vacation destinations on the Outer Banks.

Ocracoke was chosen for study because it is dependent on tourism and, to a lesser extent, commercial fishing. Commercial and recreational fishermen are active in inshore, nearshore and offshore waters of North Carolina. Also, vessels traveling from the Manteo Prospect to potential OCS landfall facilities in Morehead City would pass through sea lanes off of Ocracoke.

Despite substantial growth on the island in the past two decades, Ocracoke still has no traffic light, shopping mall, dentist, chain store, funeral home or island government. All supplies arrive on ferries from Hatteras, Cedar Island or Swan Quarter (Ehringhaus 1988:xvi).

### **3.5.2 Physical and Biological Environmental Overview**

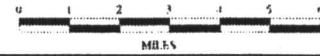
Ocracoke village is located on the southern end of Ocracoke Island, a sixteen-mile-long barrier island south of Cape Hatteras oriented northeast to southwest. The island is bordered by Hatteras Inlet to the north, the Atlantic Ocean to the east, Ocracoke Inlet to the south and the Pamlico Sound to the west. For most of its length, the island is about a half-mile wide and ranges from a wide, sandy beach backed by a primary dune line, followed by areas of sea oats, yaupon and myrtle that extend toward the sawgrass marsh and sound of "the back side." The island widens to almost two miles near the village, where there are remnant patches of maritime forests that include pines, cedars and live oaks. Some dunes on the island are more than twenty feet high, and provide some undulation to the topography, but most of the area is low and flat.



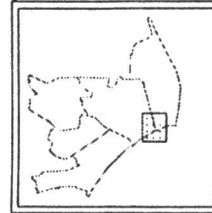
# COASTAL NC STUDY AREA BY COMMUNITY

## Legend Explanations

- Case Study Communities
- County Boundary
- Water Body
- Land Mass
- State Hwys
- County Roads
- - - Local Roads
- - - Ferry Crossing



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Ocracoke Island and Pamlico Sound are underlain by a wedge-shaped deposit of sediments ranging in age from Cretaceous to recent. The deposit is about 1,000 feet thick on the western edge and expands to about 10,000 feet beneath the Outer Banks. It consists of sand, clay, marl, and limestone and a Cretaceous aquifer which, for the most part, is too salty for use. Ocracoke's wells tap into the lens of fresh water above the Cretaceous aquifer. The island's soils are extremely poor, with the majority classified as either Corolla fine sand or Duckston fine sand. Both are very wet and severely limit construction of dwellings, roads or septic tank fields. Like its sister islands to the north, Ocracoke is slowly migrating westward as wind, waves and currents shift the island's sand. Scientists have estimated that Hatteras Island, of which Ocracoke was once apart, has moved 4,000 feet west since it was first sighted by European explorers.

Ocracoke's climate is warmed by the Gulf Stream and the annual mean temperature is 61.9 degrees. Rainfall averages 43.2 inches per year and the prevailing winds are southwest from March to August and northwest for the rest of the year. The climate is similar to coastal areas in South Carolina, Georgia and northern Florida. The village lies within a 100-year floodplain area and the entire island is subject to storm surge flooding. Hurricanes are the primary threat to development. A hurricane in 1899 created waves twenty to thirty feet high, destroying thirty homes and wrecking two churches (Goerch 1956:203-204). More recent hurricanes have also threatened the island. Hyde County authorities in 1990 ordered the evacuation of the island prior to Hurricane Lili (United Press International 1990). In August of 1991, Hurricane Bob swept over Ocracoke with 100 mph winds, and covering the only major road with six to seven inches of water. Ferries to the mainland were halted stranding some 1,200 people (Cherry 1991).

Perhaps the most significant physical environmental feature is Silver Lake, a picturesque, protected harbor in the center of the village which provides safe anchorage for commercial and recreational vessels, as well as the terminal for the Swan Quarter and Cedar Island ferries. Fish houses on Silver Lake provide local markets for fresh seafood, and a number of marinas support a growing fleet of transient yachts.

Biological resources on Ocracoke Island are not particularly unique, but they are abundant and varied. The shallow waters of the Pamlico Sound and the near shore waters of the Atlantic Ocean are rich in marine species, many of which are harvested commercially. Blue crabs, channel bass, sea trout, gray trout, mullet, bluefish, flounder, pompano, clams, oysters, and scallops are just a few of the commercially significant species.

The Gulf Stream provides access to larger species offshore. Sportsmen and commercial fishermen seek game species such as marlin, tuna, bonito, king mackerel and swordfish. Marine mammals such as pilot whales and sperm whales are rare visitors, while porpoises are common. Threatened loggerhead sea turtles nest on the island from May to July and other turtles, including the endangered Kemp's Ridley and leatherback, have been found there.

Ocracoke is an important way station on the Atlantic flyway and hosts some 350 species of birds during the year, drawing an increasing number of bird watchers throughout the region. Common species include great blue herons, common egrets, brown pelicans, red-billed oystercatchers, cormorants, kingfishers, ducks and geese. Canada geese once flocked to the island by the thousands, but because of hunting pressure and a change in agricultural practices on the Eastern Shore of Maryland, the numbers reaching Ocracoke's waters have dwindled. Duck and goose hunting are traditional pastimes for the islanders, although the decline in waterfowl population and hunting restrictions have caused many of the island's hunters to quit. There are only two active duck and goose-hunting guides on the island. The tradition also has spurred a small, but thriving business in hand-carved decoys which are sold in local craft stores.

The most celebrated animals on the island, however, are Ocracoke's banker ponies which have become one of the island's most popular tourist attractions. These horses with "short necks, short legs, goose rumps and golden manes" (Gould 1984:15) played a large role in the island's history and culture. Thought to be descendants of Spanish horses that escaped from the earliest expeditions to the New World, these wild horses once numbered up to six thousand, and until the late 1960's roamed freely over the island. The U.S. Lifesaving Service used them to ride patrols during storms, and during the 1950's, Ocracoke had one of the two mounted Boy Scout Troops in the world. In the 1960's, the horses were rounded up into a penned enclosure about five miles north of the village. Although the herd had dwindled to about a dozen animals in the early 1970's, a controlled breeding program has brought it back to twenty-seven animals. The park service maintains 200 acres of pasture, four miles of fencing and several barns and shelters for the horses. A small number of animals are kept near a public viewing platform. During the summer the park service conducts bi-weekly tours of the pony pens which are popular with visitors.

### 3.5.3 Community Chronology

Ocracoke was known to the earliest European explorers, including Giovanni da Verrazzano, an Italian in the employ of the French, who sailed up the North Carolina coast in 1524. An expedition led by Sir Richard Grenville landed there in the spring of 1585 before proceeding to Roanoke Island to help establish the ill-fated "Lost Colony" (O'Neal 1976:4). The expedition considered Ocracoke too small for a colony and it remained unsettled until more than a century later (Bragg 1973:29).

During the early 1700's, Ocracoke was a rendezvous and resting place for pirates whose shallow draft vessels could easily slip through the inlet. The most notorious of these was Blackbeard, thought to be an Englishman named Edward Teach, who plundered vessels from Pamlico Sound to the Caribbean. It was here that British lieutenant Robert Maynard, under orders by Governor Spotswood of Virginia, finally caught up with the pirate. After a prolonged sea battle, including fierce hand-to-hand combat, Blackbeard was killed, but only after sustaining some twenty-five saber and pistol wounds. Maynard severed the pirate's

head and sailed to Bath with it swinging from the yardarm. The scene of the battle is to this day known as Teach's Hole (O'Neal 1976:6).

In 1719, the Lords Proprietors granted the island to John Lovick, a resident of New Bern who moved to Ocracoke to start a farm. Lovick was the first of a long line of settlers who survived by farming and raising stock. Title to the Island passed to Richard Sanderson in 1733 and then to his son the same year. William Howard purchased Ocracoke in 1759 and sold parcels of land to several individuals including the Williams and Jackson families. In 1795, Howard deeded the balance of his property to his son, Wallace Howard (Bragg 1973:30-31).

Early settlers included coastal pilots who helped ocean-going vessels negotiate the treacherous inlet. The Colonial Assembly passed an act for the settling of pilots on the island in 1715 and the village was shown on maps of the period as "Pilot Town." After Blackbeard was slain in 1718, the fear of maritime travel diminished and settlement increased (O'Neal 1976:5; Ehringhaus 1988:xiii). During the 18th century the village prospered, becoming the gateway for trade to inland communities as far north as Virginia. The village enjoyed a monopoly on this trade since, at the time, Ocracoke Inlet was the only route to the interior. Warehouses and piers were built on Shell Castle Island on the middle of the inlet for the transfer of goods from ocean-going ships to smaller vessels that plied the sound. This "lightering" trade also sustained Portsmouth Village on the south side of the inlet. After sea captains complained about the visibility of a lighthouse on Shell Castle Island, a lighthouse was constructed on Ocracoke. The first was built in 1798, but was rendered useless by a storm that deposited enough sand on the island to leave it one mile from the water. Federal funds were appropriated for another lighthouse on Ocracoke Island which was completed in 1824 (O'Neal 1976:9).

The island has played a minor role in various wars. In 1747, the Spanish blockaded the inlet and plundered the island. A fort was built near Portsmouth during the Revolution and Ocracoke Inlet, with the help of local pilots, served as vital link in the supply route for Washington's army (O'Neal 1976:6-7). A fort was built on nearby Beacon Island during the War of 1812, but it failed to prevent a British raid on the island by Admiral Cockburn in 1813. The fort was occupied by the Confederates during the Civil War, but it was abandoned after Hatteras fell to the Union.

Concerned that the bankers on Ocracoke were not paying taxes, the Colonial Assembly in 1779 annexed the island to Carteret County.<sup>1</sup> In 1845, Ocracoke was reassigned to Hyde County where it remains today (O'Neal 1976:7). In the mid 1800's, traffic through the inlet began to wane. A hurricane opened Oregon Inlet, north of Hatteras in 1846 and much of the remaining inland trade shifted there (Gould 1984:15). After the Civil War, commercial fishing and life-saving stations at either end of the island became the mainstays of the local

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<sup>1</sup> Known at that time as *Carteret Precinct*, formed in 1722.

economy. Tourism came to the island in 1885, when a group of businessmen from Washington, N.C., built the Ocracoke Hotel as a vacation resort for their families. During the summer ferries from New Bern and Washington made regular runs to the island. The hotel burned in 1900 (Schoenbaum 1982:157).

A U.S. Coast Guard Station was built on Silver Lake in 1940 (O'Neal 1976:11). With the coming of World War II, a naval base and amphibious training center were established on the island and operated from 1942 to 1944 (O'Neal 1976:11). The Navy paved many of the island paths for improved access to ammunition dumps, and dredged the harbor to allow entry to deep water military vessels (Ehringhaus 1988:xiv).

Before World War II, Ocracoke had no roads, electricity or telephones and remained almost completely isolated. Streets in the village were mere paths of sand shaded by live oak trees, and the only regular service to the island was by a weekly mail boat. After the war, electricity was brought to the island via a cable from Hatteras and telephones were installed. The path to Hatteras Inlet was paved in 1950 and regular car-ferry service to Hatteras Island was begun soon after. The National Park Service began acquiring land on Ocracoke and Hatteras Islands in the 1950's for the Cape Hatteras National Seashore. The new park built several new facilities to the island including a marina, campground and information center as well as a regional office (O'Neal 1976:11). Motels, shops and restaurants followed gradually, providing the support services that would allow tourism to flourish in the 1970's and 1980's. Ocracoke experienced most of its population growth in the last century during the 1970's, when a number of young people moved to the island to "drop out" for awhile. Many stayed and began restaurants, inns, and specialty shops and are now established members of the business community. Today Ocracoke is a growing seaside resort community with numerous shops, restaurants, bars and inns.

### **3.5.4 Demographic Characteristics**

#### **3.5.4.1 Population History**

The permanent population of Ocracoke has remained relatively stable at between 500 and 600 residents for most of this century. Military facilities on the island during World War II caused a substantial short-term increase, bringing the island population to nearly 2,000. The most recent population increase occurred during the 1970's. Five extended families descended from Ocracoke's earliest settlers still comprise nearly half of the island's population (Gould 1984:15). Table 3.5-1 depicts changes in the population of Ocracoke over the past century.

Table 3.5-1 TOTAL POPULATION: OCRACOKE	
Year	Population
1910	565†
1920	587†
1930	547†
1940	525†
1950	509†
1960	475†
1970	541†
1980	658‡
1990	713††
Sources: †East Carolina University 1972:9 ‡Talbert et al. 1981:74 ††Holland 1992: I-1	

#### 3.5.4.2 Recent and Current Population Characteristics

**Total Population** The population on the island is concentrated in Ocracoke Village, a 775-acre exclusion from the Cape Hatteras National Seashore which manages the rest of the island. Ocracoke's population has grown moderately since regular ferry service to the island began in the 1950's. The population increased 31.8 percent from 1970 to 1990, with most of the growth occurring in the 1970's, when the population grew from 541 to 658 persons, an increase of 21.6 percent. Although Ocracoke is unincorporated, its current population exceeds that of Swan Quarter, the county seat of Hyde County. In 1990, the total population of Ocracoke was 713, thirteen percent of Hyde County's total population of 5,411. The population of Ocracoke in 1980 was 658 -- an increase of 8.4 percent over the last decade.

**Age/Gender Distribution** By 1992, notable increases had occurred in the age groups of thirty-five to forty-four, sixty-five to seventy-four, and seventy five and over. This increase in older age groups reflects an expanding retired population and little emigration of younger age groups. There were also sizable increases in the 45-54 and 0-4 age groups and large declines in the 19-34 and 55-64 groups (Holland 1992:I-2). The 1980 census showed a

relatively high percentage of males on the island. Males comprised 53.2% of the village's population compared to the national average of 49.8%. Males outnumbered females 346 to 304 in 1980<sup>2</sup> (Holland 1992:I-3).

**Ethnicity** The 1990 U.S. Census reported 703 white persons, four Black persons and six of other races in Ocracoke (U.S. Bureau of the Census 1990:1). This is almost identical to the 1980 census which reported 646 white residents, four Black and none of other races or origins (Holland 1992:I-3).

**Household Characteristics** The 1990 Census counted 312 households in Ocracoke (see Table 3.5-2).

Table 3.5-2 HOUSEHOLD INFORMATION 1990: OCRACOKE	
Census Category	1990
Total Number of Households	312
Average Number of Persons per Household	2.26
Percent of Married-couple Families	58.3
Percent of Male Householder Families	1.2
Percent of Female Householder Families	8.9
Percent of Non-family Households	31.4
Percent of Householders Sixty-five or Older	10.8
Source: U.S. Bureau of the Census	

**Housing Information** Ocracoke has a large number of rental houses that are usually rented to seasonal vacationers. A 1991 study found 729 housing units on the island, including units under construction, accessory apartments and fishing shacks (Holland 1992: I-5). While the number of housing units is adequate for the current population, affordable housing and rental units are scarce, causing many young residents to live with their parents well into their twenties. (see Table 3.5-3).

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<sup>2</sup> These estimates are based data compiled by Holland Consulting Planners, Inc. using the total population of the village in the 1990 census, the natural aging of the population and estimates of Hyde County's birth and death rates.

Table 3.5-3 HOUSING INFORMATION 1990: OCRACOKE		
Type of Unit	Number of Units	Median Value/Mean Rent
	1990	1990
Total housing units	604	101,100
Owner-occupied units	248	317
Renter-occupied units/vacancy rate	64/66.7	--
Mobile homes	71	--
Vacant housing units	292	--
Units vacant for seasonal use	142	--
Source: U.S. Bureau of the Census		

#### 3.5.4.3 Seasonal Variation in Population

Ocracoke's growing popularity as a coastal vacation community has brought large increases in seasonal population. Seasonal population increased more than 480 percent during the 1970's, from 726 in 1970 to 3,500 in 1981 (East Carolina University 1972:11; Talbert et al. 1981:75). Seasonal population was 3,404 in 1990 (Holland 1992:I-9). Ocracoke is a popular destination for tourists from major, mid-Atlantic population centers, including Norfolk, Richmond and Washington, D.C. The growing popularity of sailboarding and recreational fishing has also served to extend the island's tourist season from April through October and November, when conditions are best for these sports.

#### 3.5.4.4 Local Population Issues

The increase in seasonal population on Ocracoke has caused dramatic changes in the village. Water, electricity and sewage disposal systems are often overwhelmed during popular summer weekends. Many islanders are worried about the quick growth of the village. "I tell you, we're growing too fast for our own good," said one resident. "The big motels are overtaxing our water and sewer facilities and could pollute Silver Lake" (Bushnell 1988:19). Another resident saw unplanned development as a threat to the tourist economy itself. "The more Ocracoke gets to look like every other place, the more you are destroying your income," she said. "People come here because it's Ocracoke, not Nags Head or Atlantic City."

Ocracoke's population remained relatively stable at about 600 people for most of the century, but recent decades have shown moderate growth. The population increased nearly thirty-two percent between 1970 and 1990, with most of the increase occurring in the 1970's. The 1990 census showed 713 year-round residents. An increasing population in age groups sixty-five and older reflect a growing retired population on the island. The major population issue on Ocracoke, however, is the large seasonal population, which swells to more than 3,000 people during the summer, straining public services on the island.

### 3.5.5 Economic Characteristics

#### 3.5.5.1 Economic History

Ocracoke developed as a center of trade, located on the only water route between the Atlantic Ocean and the interior of North Carolina: Ocracoke Inlet. It was first established as a town for pilots who helped ocean-going vessels negotiate the shallow inlet, and later with Portsmouth village at the south of the inlet, became a center of the lightering trade where goods were transferred from larger vessels to shallow drafted boats that plied the sound. By the late 1800's, Ocracoke evolved into a small, isolated fishing village, save for two U.S. Lifesaving Service stations located at the either end of the island which provided some employment. Commercial activity for much of the period consisted of bartering for basic goods. Island men would load their boats with salted and dried fish, fish roe, clams, scallops, oysters and crabs and sail 30 miles across the sound to the mainland where they would trade for produce and manufactured goods (Bragg 1973:38-39).

Shrimping and clamming have been profitable activities on the island over the years (Goerch 1956:127-131). The island even supported a clam factory around the turn of the century that operated for about twenty years. Clammers from throughout the Outer Banks brought their harvest to the factory where it was processed into chowder, clam juice or packed as whole clams (Ballance 1989:223).

Tourism has been part of Ocracoke's economic history for more than a century. Early tourists stayed in boarding houses. The first hotel was the Ocracoke Hotel, built in 1885 by a group of businessmen from the mainland who wanted a place to vacation with their families during the summer. The hotel, which burned in 1900, stood near the present Coast Guard Station and faced Pamlico Sound (Ballance 1989: 225-226). Hunters and fishermen continued to come to Ocracoke, however, and the islanders began to realize the economic advantages of tourism (Ballance 1989:229-230).

The next wave of economic growth occurred during the 1940's. The U.S. Coast Guard built a station on Silver Lake in 1940, and the Navy operated a training facility on the island during the war years from 1942 to 1944. During this period, Ocracoke's population swelled to nearly 2,000. The Navy made several improvements to the island's infrastructure,



including paving some roads in the village and dredging the harbor to accommodate large military vessels.

The road to Hatteras Inlet was paved in 1950 when regular ferry service was established from Hatteras. Improved access to the island and the establishment of Cape Hatteras National Seashore during the late 1950's, spurred the growth of small hotels and restaurants, laying the groundwork for the rapid increase in tourism experienced during the 1970's and 1980's. Ocracoke's economy is now almost entirely dependent on tourism, and to a much smaller degree, commercial fishing.

While commercial fishing is still an important economic and cultural activity, tourism is now the backbone of Ocracoke's largely seasonal economy. Although specific data for Ocracoke was not available, some idea of Ocracoke's growth can be gleaned from Hyde County statistics. Per capita income in Hyde County increased 337 percent between 1970 and 1990, while total personal income and gross retail sales both quadrupled in the same period, largely because of activity on Ocracoke. In 1990, more than fifty-five percent of the island's work force was employed in construction, retail trade and services sectors (Holland 1992:II-4).

#### 3.5.5.2 Local Business/Industry

In the 1950's, a group of people on Ocracoke made a list of stores and services not found on the island. They included a pool hall, drug store, bakery, bank, beer parlor, jail and hardware store (Goerch 1956:59). In 1992, each of these were present in the community. About 113 businesses and services were listed on Ocracoke in the most recent Hyde County Service Directory.

**Commercial Fishing** About ten people on Ocracoke earn two-thirds of their income from commercial fishing, while it provides some seventy-five people with one-half to one-third of their income, according to knowledgeable sources. Two seafood buyers on the island provide a local market for island fishermen and many sell fish directly to local restaurants. Crabbing and gill netting are the most common types of commercial fishing. The boats used are usually twenty to forty feet long. According to the DMF, 103 fishing licenses were issued in the community during 1991. Fishermen work the areas in Pamlico Sound behind Ocracoke and Hatteras Islands and also the nearshore waters south of Diamond Shoals.

**Marine-related Business/Industry** Ocracoke is home to two wholesale/retail seafood dealers, six charter boat companies, three marinas, six tackle shops, two windsurfing shops and one surf shop.

**Tourism Services** Tourism is the mainstay of Ocracoke's economy, and in the last decade a number of new restaurants, inns and specialty shops have opened in the village. In 1991, some seventy-eight businesses on the island catered to tourists. Most of these businesses are owner-operated. Because of the extremely seasonal nature of the tourism industry on

Ocracoke, many businesses close during the winter. The majority of the island's tourists come between Memorial Day and Labor Day, but an increasing number of recreational fishermen and sailboarders are arriving in the spring and fall when conditions for these sports are prime. Fishermen usually access the beach in four-wheel-drive vehicles and ply the sound, inlet and nearshore waters of the Atlantic in small fishing boats. Ocracoke is also a favorite stopover for sailing yachts from harbors on the Neuse and Pamlico Rivers as well as transient vessels traveling on the Intracoastal Waterway.

**Food Services** A dozen restaurants are located on Ocracoke, varying from low-priced burger and sandwich shops to relatively expensive gourmet cafes. Many offer wine and beer, but mixed drinks are unavailable because of county ordinances. Most are located on Highway 12, the main thoroughfare through the village. Two grocery stores are located on the island, and several convenience and general merchandise stores sell groceries as well.

**Lodging** Ocracoke has fifteen hotels and motels, eight bed and breakfast inns, two campgrounds -- including the 200-site National Seashore campground five miles north of the village -- and twenty marina units (Holland 1992:I-9). There are no national chain motels on the island.

**Medical** The Ocracoke Health Clinic is the only health care facility on the island. The small facility is staffed by an experienced physician's assistant, a registered nurse/lab technician and a receptionist/bookkeeper. The facility is open five days a week and provides emergency care, including minor surgery, and has a dispensary. The physician's assistant can only dispense controlled substances with the authorization of the clinic's supervising physician, located in Hatteras. Ocracoke is still four hours away from the nearest hospital in Elizabeth City, N.C. The island is served by two private, medical helicopter services -- East Care of Pitt Memorial Hospital in Greenville, NC and Nightingale of Norfolk, NC. The U.S. Coast Guard also provides helicopter evacuation services, but only for marine related incidents that are life-threatening. Because of budget cuts, the Coast Guard has been limiting this kind of service. Helicopter evacuation is often unavailable because of inclement weather or military activities in the area.

Most pregnant island women go to hospitals in Morehead City, Washington, Greenville, Elizabeth City, or Norfolk to have their children, often leaving before the due date to avoid going into labor on the island (Ballance 1989:130).

**Construction** Homebuilding and renovation has become a vital part of Ocracoke's economy. In 1980, thirty-nine people were employed in construction on Ocracoke, about 11 percent of the island's work force (Holland 1992: I-10). The Hyde County Service Directory lists seven general contractors based in Ocracoke.

**Other Businesses/Industries** Other professional and trade services provided on the island include electrical services, plumbing, auto-repair, home cleaning, air conditioning,

refrigeration, insurance, accounting, banking and legal services. Ocracoke also supports six variety stores, twenty-nine specialty stores and four realtors.

### 3.5.5.3 Local Employment

In 1980, more than a third of the labor force on the island worked in the services sector, while an additional fifteen percent were employed in retail trade. These sectors have continued to grow. "Commercial fishing, services, construction, retail trade, and nondurable goods will continue to be the major employers. However, it is believed that the service employment category may increase at a much greater rate . . . These categories reflect the community's dependence on tourism and resort/recreation stimulated development" (Holland 1992:II-4).

***Public Sector Sources of Employment*** Public sector jobs have provided stable, year-round income for residents of Ocracoke since the early days of the U.S. Lifesaving Service. In 1980 almost a third (29.7%) of the 353 employed residents on the island worked in the public sector. Federal agencies include the U.S. Coast Guard, which maintains a station on Silver Lake with a 25-man staff, and the National Park Service. The park service employs eight people full-time on Ocracoke (four rangers and four maintenance personnel) and hires an additional sixteen during the tourist season (rangers, maintenance workers, campground attendants, lifeguards and interpreters). The N.C. Department of Transportation-Ferry Division which operates ferries to Hatteras Island, Cedar Island and Swan Quarter employed about thirty people in 1980 and little change in this number was expected by 1990 (Holland 1992:I-10). Ocracoke School employs twenty-one persons. Hyde County employs two emergency medical technicians who operate the island's only ambulance, as well as two sheriff's deputies who live on the island.

***Private Sector Sources of Employment*** In 1980, nearly forty-five percent of Ocracoke's private wage earners were employed in the private sector. Many residents depend on two or more sources of income. Other sources include commercial fishing, tourist service activities, cottage industries, including crafts and nondurable goods such as hammocks and nets, and construction work (Holland 1992:I-12). Most private sector jobs are in service and retail sales positions associated with the small shops, restaurants and inns servicing the tourist industry.

### 3.5.5.4 Seasonal Variation in Local Economy

The vast majority of economic activity on the island comes from tourist-related industries during the summer months. The traditional season once ran from Memorial Day to Labor Day, but the increasing number of fishermen, birders, sailors and sailboats coming to the island in the fall and spring has extended the season. Now many of the shops, restaurants and tourist homes are open by Easter and stay open until Halloween or even Thanksgiving. There

are also an increasing number of people who enjoy the seclusion of the island in the winter. One of the hotels on the island was nearly full for the recent New Year's holiday. Any period of fair weather usually brings tourists down from the closer metropolitan areas such as Norfolk, Richmond and Washington, D.C. In addition, the number of retirees on the island has increased the number of year-round residents. Ocracoke now has at least four restaurants open year-round, and several of the specialty shops are open for at least a few days each week, if not for full regular hours. The grocery and general stores which serve the local community stay open as do many of the hotels and small inns.

#### **3.5.5.5 Local Economic Issues**

The two most important economic issues on Ocracoke are its relationship to Hyde County and controlling future development. In 1992, Hyde County raised its property tax rate from \$.94 per \$100 valuation to \$1.06. In the last decade, Ocracoke's property values have skyrocketed, placing a high tax burden on many local residents, especially those with fixed incomes. Dare County, on the other hand, has a county tax rate of \$.39 per \$100 valuation (as of 1991) and many residents favor transferring to Dare County. Some Ocracoke residents argue that by joining Dare County, Ocracoke would receive better health care and other county services, while others fear that Ocracoke would lose the political power it now has in Hyde County. One resident said that if Ocracoke became part of Dare County, it would still be at the bottom of the list for county services and attention. "It would be like the tail trying to wag the dog," he said.

Controlling development in the village is another economic concern. The building of high-rise hotels on the island has angered many long-time residents who say their owners are more interested in quick profits than in the community. They also contend that the state agency charged with enforcing the Coastal Area Management Act, and the U.S. Army Corps of Engineers, which issue permits for filling of wetlands, have been poorly administered and have allowed developers to build on areas that should have been protected. The protection of natural resources on the island may limit future development. Many residents also recognize the need for improved public services, especially a sewage treatment facility, but fear that such improvements would lead to even greater development.

#### **3.5.6 Locally Active Governmental Institutions and Services**

##### **3.5.6.1 Governmental History**

Because of its isolation, Ocracoke traditionally has been independent of government control. The Colonial Assembly ceded the island to Carteret County in 1779 to insure village residents were taxed. The island was transferred to Hyde County in 1845, but the village has never been incorporated. Today Ocracoke has one representative on the five-member Hyde County Board of Commissioners and one representative on the Hyde County School Board.

### 3.5.6.2 Federal Government

Federal institutions with facilities on Ocracoke include the United States Postal Service, the United States Coast Guard and the National Park Service. Ocracoke has a small post office located in the commercial strip on the northern shore of Silver Lake. The island has no postal delivery. The U.S. Coast Guard, which is part of the U.S. Department of Transportation, maintains a station on Ocracoke at the entrance of Silver Lake. The station was built in the 1930's, but the Coast Guard's predecessor, the U.S. Lifesaving Service, has had a presence on Ocracoke since the 1870's, with stations at either end of the island. The Coast Guard has been a traditional source of employment on the island, although most of the guardsmen stationed on Ocracoke today are not native islanders. At one time the Coast Guard played a vital role in the community, helping stranded fishermen and providing materials or expertise to the village. Today, however, the Coast Guard's primary role is that of law enforcement and drug interdiction.

The National Park Service, part of the Department of the Interior, manages approximately 88 percent of the Ocracoke's land area and is the major federal agency affecting the island. The island's major attractions -- sixteen miles of pristine, undeveloped beach, the Ocracoke lighthouse, the Ocracoke pony herd and the only guarded beach in the Cape Hatteras National Seashore-- are all maintained by the park service. The service operates a 212-site campground five miles north of the village with a 24-hour computer reservation service. The park service offers some seasonal and year-round job opportunities for local islanders and plays a significant role in the activities of the community. The village water supply comes from two wells on park property. The park has also sold land to the county for the airstrip and the jail, and has allowed the Ocracoke Preservation Society to operate a museum on park property near the visitor's center. The park is often called on to provide services that the county or private businesses are unable or unwilling to provide, such as pump out facilities at the public docks, or land for a future sewage treatment system. Park rangers assist the local fire department and local law enforcement officials.

### 3.5.6.3 State Government

State government institutions active in Ocracoke include the North Carolina Department of Transportation-Ferry Division, which has a large facility on the island that handles ferry reservations and conducts some maintenance on the vessels. In 1980, NCDOT employed about 30 people on the island. The North Carolina Division of Marine Fisheries enforces regulations for commercial and recreational fisheries and at least one enforcement officer is stationed on Ocracoke. Wildlife enforcement officers of the North Carolina Department of Environmental Health and Natural Resources patrol the island occasionally during hunting and fishing seasons but have no office on the island. Three officers of the North Carolina Highway Patrol are stationed in mainland Hyde County, and one often comes to Ocracoke during busy weekends in summer.

#### 3.5.6.4 County Government

Hyde County provides all government services to Ocracoke, including social services, health department, sheriff's department, school system, emergency services, building inspections and administrative services. The five-member Hyde County Board of Commissioners oversees county services and finances. Ocracoke has one designated seat on the board (Holland 1992:I-34). Nearly all county government offices are located in the county seat of Swan Quarter.

#### 3.5.6.5 Community Government

Ocracoke has never been incorporated. The community is therefore under the jurisdiction of Hyde County, which provides all local government services.

**Law Enforcement** The Hyde County Sheriff's department has two deputies stationed on Ocracoke, and maintains an office on the island with two-four man cells. Until recent years, crime on the island has been almost non-existent. The increase in tourists, however, has brought an increase in crime. The most common violations are driving while intoxicated, theft, and breaking and entering into rental houses during the winter months. Still, one five-year resident says he hasn't locked his house or taken the keys from his ignition of his car since he moved to the island and has yet to have any problem. Hyde County has considered adding a third deputy and another patrol car, but has not done so yet (Holland 1992:I-32,33).

**Fire Prevention and Suppression** Ocracoke's Volunteer Fire Department is staffed by some twenty-five active volunteers. Current firefighting equipment includes a 1987 Ford pumper, a 1965 Dodge pumper, and 1966 Dodge Power Wagon (used for brush fires) and a trailerable pump on loan from the National Park Service (Holland 1992:I-33). Ocracoke has experienced only one structure fire in the last few years, but the fire department usually responds to numerous brush fires in the National Seashore during the summer months.

**Emergency Medical Services** Hyde County maintains four full-time certified EMT's on Ocracoke and a modern fully-equipped ambulance which usually transports patients to the Ocracoke Health Center for initial treatment, then to the hospital in Elizabeth City if more medical services are needed (Holland 1992:I-33). The Coast Guard provides some emergency rescue service for maritime accidents, but these are usually restricted to life-threatening incidents. The island is served by two private medical helicopter services based in Greenville, North Carolina and Norfolk, Virginia.

**Public Works** Hyde County contracts with Dare County for solid waste disposal and collection on Ocracoke at a cost in 1991/1992 of \$115,000. Two trucks collect solid waste at residences twice a week, while businesses can obtain individual dumpsters which are emptied each week in the off-season and daily in the summer months. Waste volume on the

island averages fifty tons per month in summer and thirty tons per month in winter. There is no official recycling program on the island. Solid waste is disposed in the Dare County landfill, some 70 miles away (Holland 1992:I-29).

**Education** Ocracoke School is the smallest school in the North Carolina public school system. The present wood-frame structure with six classrooms was built in 1971, and three additional teaching stations, a gym and shop facility were added in 1978. For the last decade, the school has had an enrollment of between ninety and one hundred students. In 1992-93 school year, there were 99 students, ten teachers and 11 support staff. A special report issued by the Division of School Planning in 1987 stated that "the secondary curriculum at Ocracoke cannot be considered a comprehensive academic program since students have a very limited number of courses from which to choose." The Division recommended that the education of Ocracoke students be enriched, either through satellite, telecommunications, or residential programs on the mainland during the school year or summer (North Carolina Department of Public Instruction 1987:7-10). In 1992, the school had installed a satellite antennae to provide alternative instruction for the students.

Most grades have six to nine students, and the largest graduating class (prior to 1988) was thirteen. The principal also teaches physical education classes and teachers strive to enhance educational programs (Ehringhaus 1988:xvi). In 1991, the school was not at capacity and population forecasts do not indicate any substantial change in the school age population. Major improvements to the school facilities are not anticipated (Holland 1992:II-7).

The school is the center of much activity on the island and has a considerable amount of community support. Several parents volunteer to teach classes, while others often are called on to provide routine maintenance of the facility. When a furnace broke in December of 1992, an engineer on one of the ferries came and fixed it free of charge. Parents take a strong interest in the curriculum and management of the school.

**Social Services** Social services on Ocracoke are available through the Hyde County Department of Social Services in Swan Quarter. No residents of Ocracoke were receiving any form of public assistance in 1980, but 105 residents (16.0% of the total population) received an average of \$3,751 in social security that year, emphasizing the island's growing retirement population (Holland 1992:I-13). Thirty-six persons were living in poverty on Ocracoke in 1980 out of a population of 650, making the poverty level on the island 5.5 percent. There is little evidence that this condition has changed significantly since 1980 (Holland 1992:I-1). The Ocracoke United Methodist Church recently began providing free meals once a week for residents over fifty.

**Cultural and Recreational Services** Ocracoke has no organized recreational activities outside of the high school, but the Cape Hatteras National Seashore, Pamlico Sound and Atlantic Ocean offer numerous recreational opportunities. The 1992 Hyde County Land Use plan recommended that the county develop plans for a year-round recreational program on the

island, including a ball field, community center and youth-oriented programs (Holland 1992:II-8).

The National Park Service offers several educational and interpretive programs during the summer months and recently allowed the Ocracoke Preservation Society to open a small museum near the visitor center which features exhibits from Ocracoke's maritime history. Ocracoke has a very small community library located next to the fire station. Since Ocracoke has no community center, most community gatherings are held at the school gymnasium or at the two churches on the island. The gymnasium at the school converts to a theater with a stage and the school utilizes it for seasonal pageants (Holland 1992:II-8). Ocracoke has no senior center.

### 3.5.6.6 Local Governmental Issues

The major local governmental issues on the island are high property taxes, the quality and extent of county services, and the potential transfer of the island to Dare County (see subsection 3.5.5). Some residents are taking a renewed interest in incorporation and a referendum on the matter could be held within the next few years. Other major issues facing the community include the following (as adapted from Holland 1992:II-4):

- \* Cottage industries will continue to be important to Ocracoke's economy to sustain its fishing village atmosphere.
- \* Commercial fishing will continue to be vital to residents and must be protected from development pressures.
- \* Increasing property taxes are decreasing the ability of long-time Ocracoke residents to keep property. This may be a reason for the decline in the nineteen to thirty-four age group and the fifty-five to sixty-four age group.
- \* Service businesses with high labor demand can't always find sufficient employees. The mainland labor base could be tapped, but only through improved ferry service, perhaps including a high-speed pedestrian ferry.
- \* Ocracoke residents will continue to rely on multiple sources of income, including commercial fishing and tourist-related activities.
- \* Increasing land values will stimulate high-density development.



- \* An expanding business base will increase the demand for government services, especially sewage and solid waste disposal.
- \* Increased economic activity will make natural resource protection more difficult.

### 3.5.7 Infrastructure and Land Use

#### 3.5.7.1 Infrastructure History

Most of Ocracoke's infrastructure has been developed since the middle of this century. The island had no paved roads until World War II, when the U.S. Navy built a base and training center on the island and paved the roads connecting ammunition dumps. The main road along the length of the island wasn't paved until 1950, when regular ferry service was established from Hatteras Island. An electric cable was installed across Hatteras Inlet at about the same time, providing power to the island. During the latter part of that decade, nearly ninety percent of the island was purchased by the National Park Service as part of the Cape Hatteras National Seashore. Improved access to the island provided by the ferries and the establishment of the national seashore laid the groundwork for a tourism-based economy that boomed in the 1970's and 1980's and continues today. Ocracoke is now a premier vacation destination on the mid-Atlantic coast, drawing fishermen, sailors, bird-watchers and beach-goers from as far away as Canada.

Water supplies on the island traditionally came from private wells and cisterns. The Ocracoke Sanitary District began providing water service to the village in 1977 and continues to serve the water needs of the village. Improved access as well as power and water systems have been vital to the development of Ocracoke's tourist economy.

#### 3.5.7.2 Public Sector Facilities

**Marine Facilities** The National Park Service maintains a public dock on Silver Lake as well as a public boat ramp in the Pamlico Sound behind the visitors center. A few small private marinas also operate in Silver Lake providing about twenty slips (Holland 1992: I-9). None of the marinas have pump-out facilities, but the National Park Service plans to install two such pumps at the public dock in the near future.

**Transportation System** The first car ferry was introduced in 1950. Before then, passengers, supplies, fuel, livestock, even automobiles were transported by freight boats. Cars had to be ferried across Hatteras Inlet, and then driven down the beach or along a narrow winding path along the sound. Getting stuck was a common hazard (Goerch 1956:23). Most people came to the island on private boats, airplanes or the mail boat. Free ferry service was established

in 1957. In the late 1960's and early 1970's, six new ferries were added to the fleet for the Hatteras run; two were added to the Cedar Island run in 1969. Ocracoke to Swan Quarter service was added in 1977 (Ballance 1989:209-213). Tables 3.5-4 and 3.5-5 provide information about ferry usage.

In 1991 the county was considering moving the landing area for the Swan Quarter ferry to East Bay Bluff, which would cut ten miles and about forty minutes from the current travel time. Transportation issues also included the need for high-speed pedestrian ferry service, improving non-public roads, replacing private bridges in the Oyster Creek Development, off-street parking and the need for bus service from the village to the beach (Holland 1992:II-6,7).

State Route 12 runs thirteen miles from the northern end of Ocracoke to the village at Silver Lake. During extended northeasters, the road is often covered by sand and seawater overwash and is impassable. After these storms, motor graders and loaders clear the sand from the highway, using it to rebuild the protective dune line.

Ocracoke has a 3,000-foot paved airstrip used by private planes, but most tourists drive down the Outer Banks and take the free ferry across from Hatteras (Shears 1990:E1). The tremendous growth of tourism has resulted in serious traffic problems during peak usage periods. Congestion along Silver Lake Road and the island as a whole during the summer season is an increasing problem. There are increasing conflicts between vehicles and pedestrians. The North Carolina Department of Transportation has not proposed any improvements for Ocracoke in the near future (Holland 1992:I-32).

Table 3.5-4 FERRY TRANSPORTATION USAGE (PASSENGERS)	
Hatteras to Ocracoke	
Year	Passengers & Walkers
1971	359,317 <sup>1</sup>
1981-82	542,536 <sup>2</sup>
1990	754,636 <sup>3</sup>
Swan Quarter to Ocracoke	
1981-82	32,013 <sup>2</sup>
1990	39,201 <sup>3</sup>
Cedar Island to Ocracoke	
1981-82	155,094 <sup>2</sup>
1990	219,407 <sup>3</sup>
Sources: <sup>1</sup> E.C.U. 1972:10 <sup>2</sup> Talbert et al. 1986:PtII,3 <sup>3</sup> Holland 1992:I-30	

Table 3.5-5 ALL FERRY TRANSPORTATION USAGE (VEHICLES)		
Year	Number of Vehicles	Number of Passengers
1981-82	267,881*	729,643*
1990	385,570**	1,013,244**
Sources: * Talbert et al. 1986:24 ** Holland 1992:I-30,31.		

**Water and Sewer Services** The Ocracoke Sanitary Water District Association began providing water service to the village in 1977 using deep geologic wells, a reverse osmosis desalinization plant, and both above-ground and ground storage tanks. Ocracoke water supplies come from two 600-foot deep wells which tap a Castle Hayne aquifer (Talbert et al. 1981:75). The primary well is eight inches in diameter and produces 400 gallons per minute

(gpm), while the supplementary well is four inches in diameter and produces 200 gpm. Most of Ocracoke's raw water is drawn from the primary well which is pumped up to twenty-two hours per day during peak demand periods in the summer. The water is treated by four desalination units with a combined capacity of 230,000 gallons per day, and is then pumped to the distribution system with high-volume pumps at the rate of 200 gpm. Ocracoke has one 150,000-gallon elevated storage tank and two 25,000-gallon ground storage tanks (Holland 1992:I-28,29).

Water demand on the island increases substantially during the peak tourist season. In 1980, the monthly water use more than tripled, from 1.03 million gallons in January, to 3.62 million gallons in August (Talbert et al. 1981:75). Although no precise demand studies have been done, it is believed that Ocracoke's water system operates at its maximum limit during July, August, September and the first part of October (Holland 1992:II-6).

There is no public sewer system on Ocracoke. Each home and business utilizes septic tanks and drain fields, although five businesses on the island have installed advanced septic systems with low-flow pumping for septic field distribution (Holland 1992:I-29). Many residents say that during peak summer months, the smell of untreated sewage is readily apparent, especially after heavy rains. There is some talk in the village about building a sewage treatment facility, but many are afraid that this will spur development on the island. Much of the drier areas in the village have already been developed and much of the remaining land will not support septic systems.

***Solid Waste Disposal*** Ocracoke's solid waste are collected and disposed under contract with Dare County (annual cost in 1991/1992 was \$115,000). Trash is collected door-to-door twice each week, while several businesses have dumpsters which are emptied once a week in the off-season and daily in the summer. The volume of waste averages fifty tons per month in summer and thirty tons a month in winter. Hyde County also has a contract with an individual who collects large items and junk automobiles. The annual cost of this contract is \$5,000 (Holland 1992:I-29).

Solid waste disposal on Ocracoke is a critical problem. Hyde County has no landfill, and in 1991, the estimated life expectancy of the Dare County landfill was three and a half years. Dare County is in the early stages of planning for a new landfill which may allow it to continue supplying solid waste services to Ocracoke. But if the annual contract with Dare is not renewed, Ocracoke would face a serious garbage crisis. Hyde County has a small recycling program for the island, but thus far it has failed to significantly reduce the volume of solid waste generated. Many residents say a more effective recycling program is needed (Holland 1992:II-7).

***Energy*** The Tideland Electric Membership Corporation (TEMC) supplies Ocracoke Island with electric service. It purchases power from North Carolina Power and Light Company. In 1991, TEMC's customers on the island numbered 850 (Holland 1992:I-33). A larger supply cable under Hatteras Inlet and other improvements to the service were completed in

the late 1980's, which reduced brownouts and blackout problems on the island. A cogeneration plant was built on the island in November 1990 and is licensed to operate at 200 hours per year. It normally functions two to three hours per day during peak demand periods, although when the Bonner Bridge collapsed shortly after the plant was completed, severing power lines to the island, the plant operated as the sole power source until the lines could be repaired. Service problems continue, however, during peak summer season and during winter storms, when salt spray tends to short insulators on transmission wires on Ocracoke and Hatteras (Holland 1992:I-33,34).

**Communications** Carolina Telephone provides local and long-distance telephone service on Ocracoke. A local cable company provides cable television to the island, while the *Coastland Times* and the *Virginia Pilot and Ledger Star* newspapers are distributed on the island. A few commercial radio stations can be received on the island, but none broadcast from Ocracoke.

**Infrastructure Issues** According to many residents, the most serious infrastructure issue on Ocracoke is the lack of a central sewage treatment system. As early as 1972, residents were experiencing problems with well-water contamination from septic tanks and leach fields. Some sewage systems discharged directly into Silver Lake and Pamlico Sound, contributing to a rapid decline in water quality in those areas (East Carolina University 1972:20). Ocracoke's sandy, wet soils are limited in their capacity to absorb effluent, yet are heavily taxed during the tourist season. Intensive development on the island, especially around Silver Lake has led to some sub-surface seepage into surface waters. To the dismay of many native islanders, Silver Lake is no longer safe for swimming (Holland 1992:I-15). Some long time residents have nicknamed their quaint harbor "the cesspool."

Bacterial contamination of nearby shellfish areas in Pamlico Sound, especially after hard rains, is common, because of septic field leaching and storm water runoff from the growing number of paved areas on the island. Despite these problems, many islanders are reluctant to advocate a central sewage treatment system, for fear it would further increase the density of development on the island.

Other infrastructure issues include traffic congestion (see transportation subsection above), and the lack of a highway right-of-way for roads in the village. Because most of the roads in the village were sand paths (many still are) paved by the Navy in 1942, the North Carolina Department of Transportation only has a 150-foot right-of-way on N.C. 12, until it reaches the village where it decreases to a thirty-foot right-of-way for a few hundred yards. Within the village, the state only has an easement, and maintains only two feet on either side of the roads. According to a former DOT employee on the island, the department allows buildings to come within a few feet of the road in the village, and several new developments have been built right up to this ill-defined line. The lack of a right-of-way for roads in village has also allowed property owners who own land on both sides of a road to treat it as one parcel for septic tank regulations. This has allowed at least two developers to build structures directly on the shores of Silver Lake, while pumping effluent to septic fields across the roads.

### 3.5.7.3 Land Use Patterns and Related Issues

**Land Ownership** The village consists of 775 acres, some fourteen percent of the island's land mass, most of which is privately owned. The rest of the island, some 4,760 acres, is owned and maintained by the National Park Service.

**Zoning and Land Use** Hyde County has never instigated zoning or subdivision ordinances on Ocracoke. Zoning was a major issue in the early 1980's, when many residents became interested in restricting development on the island. A 1981 zoning referendum was defeated on the island by a vote of 424 to 238 and the voters included absentee land owners. Although many reasons were given for the defeat, most proponents said it was not explained clearly enough and that long-time Ocracoke residents felt it would be too restrictive on their traditional way of life, i.e. preventing them from keeping boats or crab pots in their yards. Islander's attitudes began to change when several three- and four-story structures were built around Silver Lake in the early 1980's. After much discussion, Hyde County commissioners adopted the "Ocracoke Village Development Ordinance," which provided some restrictions on development, including a thirty-five foot height limitation. More stringent controls, including comprehensive zoning and subdivision regulations may be needed to adequately regulate development (Holland 1992:I-15).

The number of vacant lots available for development on the island is decreasing rapidly. Some 350 vacant lots were reported in 1991 which did not appear to be located in wetlands. However, 342 building permits were issued on the island between January 1, 1986, and April 15, 1991, a rate at which the remaining parcels could be developed within the next five to ten years. The construction of multi-family structures in these areas could seriously increase traffic congestion and detract from the island's fishing village atmosphere (Holland 1992:I-14). The first phase of a condominium development has already been built on the shores of Ocracoke Inlet.

**Hazard Areas** All of Ocracoke village is within the 100-year floodplain and the entire island is subject to storm surge flooding. The greatest hazard to development is the threat of a major hurricane which could destroy many of the existing structures. During the hurricane in 1933, for example, the entire village was flooded (Holland 1992:I-18).

Some hazardous materials are stored on the island. Diesel fuel is stored at the Coast Guard Station and both ferry terminals on the island, as well as at the cogeneration plant. There is one gas station on the island which stores gasoline and some of the marinas store fuel.

**Visual Considerations** Several three- and four-story structures were built near Silver Lake in the early to mid-1980's, which many residents of the island say have destroyed the visual beauty of the village. The structures even surpass the height of the historic Ocracoke lighthouse, which is one of the main tourist attractions on the island. The Ocracoke's

building ordinances, adopted in 1986, restrict building heights to thirty-five feet. Enforcement of those ordinances has been a problem.

***Land Use Issues*** The issue of zoning and land use is one of the most important issues residents cite for the future growth and maintenance of Ocracoke Island. By 1981, the inconsistent land use in the village had become apparent. Residential areas were adjacent to commercial areas in varied patterns (Talbert et al. 1981:78). In 1992, land compatibility and inconsistent land use patterns were still a problem, and many residents were concerned that recent development was damaging fragile natural areas (Holland:I-15). The major land use issues on the island (as adapted from Holland 1992) were as follows:

- \* The island's natural resources, including coastal and 404 wetlands are being lost to development.
- \* Water quality in Silver Lake and the Pamlico Sound has seriously deteriorated.
- \* Ground water pollution from septic tanks is an ongoing concern.
- \* Marinas are contributing to water pollution problems.
- \* Residential subdivisions have been developed without regulation, resulting in poor design.
- \* Single-family residential areas are threatened by multi-unit structures and commercial land uses.
- \* State and federal regulations protecting natural resources are not being uniformly enforced, and in some cases are not enforced at all.
- \* As a result of unplanned development, Ocracoke's aesthetic appeal and fishing-village character is being lost.

### **3.5.8 Social and Cultural Characteristics**

#### **3.5.8.1 Sociocultural Aspects of the Community**

***Physical Appearance*** Until the early 1970's when tourism began to increase, the community of Ocracoke looked very much like a traditional Outer Banks fishing village. Small, white clapboard houses spread out in a horseshoe shape around the harbor of Silver Lake. These houses were scrupulously maintained and surrounded by white picket fences while boats, trailers, nets and crab pots often overflowed from sandy yards. Most of the roads in the village were shell-packed lanes shadowed by live oaks. Residents either lived "Down Creek"

near Silver Lake, or "Up Trent" on the high ground just north of the lake. Silver Lake remains one of the major landmarks of the community, along with the Ocracoke Lighthouse which is situated on a slight rise above the harbor, the U.S. Coast Guard Station located at the harbor entrance, and the U.S. Post Office which exists on the small business strip on the southwest side of the harbor.

Today, the village still retains some of its traditional charm. Houses remain tucked into groves of oak, and maritime forest and the long marsh and dunes still stretch away to the South Point. Development, however, is readily apparent to residents and long-time visitors. Several multi-story structures (both hotels and condominiums) surround Silver Lake, while motels, restaurants, bed-and-breakfast inns and specialty shops abound. On an island which twenty years ago could barely support a general store, some seventy businesses now flourish on increased tourism. New residential developments, dotted with modern houses built on pilings, have stretched out into the marshes north of the village. Elaborate new houses are being built on tiny lots within older residential areas because of the limited space of the village. As a result of limited strict zoning regulations, residential and commercial areas overlap, giving the village a slap-dash, thrown-together look in some places. For example, many houses exist a stone's throw away from commercial fish-houses. This type of development, however, has a long tradition on the island where most long-term residents have supported themselves by a number of enterprises. Despite its new facade, traces of old Ocracoke still remain. For instance, it is not uncommon to hear a neighbor's rooster crowing in the cold light of dawn.

Ocracoke is surrounded by Pamlico Sound to the west, Ocracoke Inlet to the south, and the Atlantic Ocean to the east. It lies at the southern tip of Ocracoke Island and jurisdictionally is completely encompassed by the Cape Hatteras National Seashore. The park boundary extends north of the village approximately to the Hyde County Sheriff's office on Highway 12, and west to the sound and southeast along a vast expanse of marsh to Ocracoke Inlet. There are various inclusions of park property within the village including the Ocracoke Lighthouse, Keeper's Quarters and grounds, the area surrounding the ranger's station, the visitor's center, and boat landings on the southwest side of Silver Lake. Natural barriers include marshes on the sound and southeast side of the village, while within the national seashore the long primary, secondary, and tertiary dunes fade into pockets of maritime forest, tidal creeks and saltmarsh.

*Living On Ocracoke* Life on Ocracoke is governed by the seasons and the tourists. The first wave of visitors usually arrives during the Easter vacation. These persons typically include fishermen, sunbathers and anyone else willing to brave the chilly water. As the weather grows warmer, the number of visitors to Ocracoke gradually increases. Traffic becomes a problem on the island during this time, especially when the Cedar Island ferry arrives. By Memorial Day, the tourist season is in full flux and the island families are usually busy working at restaurants, craft shops and specialty stores that cater to visitors. Some residents work fourteen-hour days at family businesses and it is not unusual for their children to assist them. Not unlike its former days as a fishing village, the summers in



Ocracoke constitute the harvest season when residents will make most of their income for the year.

Although the tourist season on the island formally ends on Labor Day weekend, the increasing popularity of fishing and sailboarding in the last decade has made fall an important shoulder season for tourism. Many of the shops and restaurants delay their winter closings until after Thanksgiving. Throughout the fall, traffic gradually wanes and the island returns to its winter hibernation, although there are still occasional visitors. According to one hotel owner, any warm week during the winter will send a wave of tourists down from Richmond, Norfolk and Washington, D.C. Christmas and New Year's Eve are also becoming popular holidays for visitors, as noted last New Year's Eve, when one of the largest hotels on the island was full.

Other than the influence of the tourists, life on Ocracoke is much like any other small, isolated coastal town of 700 residents, although its population is probably more diverse than most. About half of the population have lived on the island their entire lives, while the other half are comprised of retirees, young entrepreneurs and tradespeople. Nearly everyone on the island knows everyone else and there are few secrets kept in the area. Although this behavior may appear nosy to some people, it is indicative of a self-reliant and tight-knit community. For example, if an elderly person is sick, they are often provided with hampers of food from neighbors' kitchens.

The island has several centers of social interaction, the most prominent being Ocracoke School. The school PTA is one arena where native islanders and newcomers can meet and discuss common concerns. There is also a sense among native Ocracokers that a new family with children in school has more of a stake in the island's future than a retired couple or a young, mobile laborer. The PTA is active on the island and school issues are widely discussed at local hangouts like the post office, the fish houses, the general stores and the bars.

A distinctive island mentality also exists on Ocracoke, which is comprised of a sense of remoteness from civilization and a closeness to nature that make most residents reluctant to leave. When asked to rank the qualities of living on Ocracoke, most respondents put natural beauty as one of the main attractions of the island. Many persons, however, also said that family ties were important. One respondent said that you could always survive on Ocracoke, and that there would always be someone willing to lend you money if you needed it or there would usually be some work that you could do. This combination of natural beauty and a supportive community makes the island attractive to both visitors and residents.

Of Ocracoke's 713 permanent residents, roughly half are descendants of a half-dozen or so families that trace their presence on the island to the early eighteenth and nineteenth centuries. These are the "O'cockers," who are distinguished from recent immigrants or "transplants" by their Elizabethan dialects, their fondness for, if not dependence on, traditional activities such as commercial fishing, crabbing and clamming, and their somewhat

clannish ways. Although gracious and helpful to newcomers, O'cockers rarely accept outsiders until they have spent several years in the community and earned locals' trust. "Local people aren't impressed by doctors, lawyers or Indian chiefs. It means virtually nothing to them," said one resident. "If they're introduced to somebody who is Dr. John Jones, they call him John. And if he doesn't want to be called John, that's tough. Local people don't express a lot of curiosity about what other people's jobs are. It's who you *are* that matters, not what you *do*" (Ehringhaus 1988:24).

Much has been written about the native islanders' dialect, which is thought to be derived from England's West County, where their ancestors originated. The island's isolation and pride in heritage have kept the dialect somewhat intact. Ocracoker's language is also salted with a number of quaint idioms, including "all mommicked up" when something is confused and messy (Shears 1990:E1). But if someone promises to give you a "mommicking," you can expect a good thrashing (Bragg 1973:41). One writer described these idioms as follows:

*Chunk* is used sometimes from throw; *cam* for calm; *betwixt* for between; *piping* or *podding* for the wind blowing hard; *lee'ard* for leeward. Some of the real old timers say *harrykin* for hurricane. One expression some writers credit them with using just isn't true; they do not say '*hoigh tide*' for high tide.

. . . A few more expressions: *blessed heavens*; *my sakes alive*; *don't mess with me*; *I'll stand you down*; *he lit a rag*, meaning he ran fast.

If a man comes in from fishing with a real big catch, someone is apt to say, '*You sure nited 'em today, Uriah.*' His answer will be: '*We didn't miss it.*' The questioner will come back with: '*Guess you'll be out 'fore day tomorrow.*' Uriah's answer will be, '*I heard you.*' And that means he sure will (Bragg 1973:42).

Locations and direction are described by geographically important features, and not by common directional methods (i.e. north-south) If someone is driving up to Hatteras (pronounced *Hattras*), they say they are going "*up the beach*" because before there was a road, one had to literally drive up the beach. When they head south, they are going "*down the sound.*" Others simply say "*down sound*" (Ballance 1989:X). Silver Lake is called "*the ditch,*" by some, and so leaving the harbor is called "*going out the ditch.*" Silver Lake is also known as "*the Creek*" (Ballance 1989:X).

Today, only about ten fishermen fish full-time in Ocracoke, while another seventy-five supplement their income by crabbing or commercial fishing. Even so, as recent as four years ago Ocracoke fishermen brought three million pounds of crabs to the docks, supplying both local restaurants and regional markets. Many O'cockers work in the public sector

(more than twenty-nine percent of the work force in 1980 worked in public sector jobs), especially on the ferries that are the lifelines to the island, bringing supplies, fuel and a steady stream of tourists in the summer months. Most of the residents who were not born on the island or do not come from island families moved to Ocracoke in the 1970's to escape the hectic pace of modern urban life. They were attracted to the island for many of the same reasons that have kept local islanders from wandering too far from home: long, sandy beaches, clean air, mild climate and a slower-paced lifestyle. Some who came here from large cities experienced culture shock in the village, where everyone knows everyone and few secrets exist. One resident who moved to the island in the late 1970's said, "People who come here are going to get to know themselves, and other people are going to get to know you. There is nothing you can do about it." Many who came to the island during this period opened specialty shops, restaurants, or small bed-and-breakfast inns and are now established members of the business community. The growth of small businesses has been especially dramatic in the last five years. By 1991, some seventy-eight businesses catered to tourists, compared to about forty-two in 1986 (Holland 1992: I-11).

In more than two dozen discussions with residents, however, a few common themes emerged regardless of length of residence or familial ties. Nearly all the residents said life on Ocracoke was better than in other Outer Banks communities, and nearly all were passionately concerned about the rapid growth and the corresponding changes occurring on the island.

Social interactions occur on a number of levels. Residents know their neighbors and often include them in backyard barbecues or fish fries. Family ties are strong on Ocracoke, especially among the native island families. One resident said that it was not uncommon for a married couple to have dinner with their parents, but usually the husband dines with his parents and the wife dines with hers. There is also a longstanding tradition among islanders to share a plentiful catch or bounty from the garden with others that are elderly or less fortunate.

One of the major centers of social interaction is Ocracoke School. With about 100 students, the school is the smallest in the state, and educates all of the island's children from kindergarten to high school. The school enjoys widespread community support. Parent volunteers often teach classes and local tradesmen help with building maintenance. The school Christmas Pageant is one of the highlights of the year and most of the islanders attend.

For many residents, there is little time for recreation during the tourist season, since twelve- and fourteen-hour days are common to accommodate the tourists. Children often work in the family businesses during summer vacation. Fishermen and crabbers are also at their busiest this time of year. Some residents describe the island as a "madhouse" at this time and prefer the quieter days of winter. Any free-time is usually spent enjoying the natural resources of the island, including picnicking on the beach, swimming in the ocean or sound, fishing, clamming or boating.

Ocracokers, however, say their tourists are different from those that visit the more accessible Outer Banks communities. A visit to Ocracoke, they say, requires more planning and more time. Many visiting families rent the same cottage for the same two weeks year after year.

In the autumn, winter and spring, Ocracoke returns to its traditional role as a fishing village, but during the prime fishing season in spring and fall, recreational fishermen often outnumber local commercial fishermen. Although the conflict between these two groups is growing on Ocracoke, it has not reached the same levels as on other parts of the Outer Banks.

In the winter, activity slows to a fraction of the summer pace. Residents make repairs to boats and businesses, and many take vacations off the island. Some travel to Florida. Only a few hotels, restaurants and shops stay open throughout the winter, and these often operate for limited hours. During the winter, the residents have time to concentrate on issues facing the community, such as management of the school, incorporation, taxation by Hyde County, changing fisheries regulations and growth. Many of these issues are discussed over coffee at one of the open restaurants, or on the daily three o'clock visit to the post office, or over beers at a local fish house. Local fishermen have a reputation as hard drinkers and some residents say alcohol abuse is a problem on the island. Some of the fishermen characterize themselves as "a dying breed" or as "endangered species," which may contribute to a growing sense of displacement in the community where many have lived all their lives. "Ocracoke is in transition," one resident said and further noted that:

People aren't quite sure how much it's gonna change and they're not quite sure if they're gonna like the change, and of course there are those who are *definitely* not going to like the change. But it's coming. I think it'll take another five or six years to get where it's going (Ehringhaus 1988:92).

Another resident added: "Ocracoke's gonna change regardless who wants it to or who don't want it to. More people are gonna come every year" (Ehringhaus 1988:94).

***Environmental Values and Perceived Threats*** Although individual views toward the environment vary within the community, Ocracoke seems more environmentally conscious than other Outer Bank communities. This can be credited, in part, to a small, active group of environmental activists who live on the island. The core of this group consist of "children of the sixties" who moved to the island during the 1970's and have been active in local social issues for the past three decades. Ocracoke is also the home to the most vocal and active chapter of LegaSea, an organization opposed to offshore drilling along the Outer Banks. During the height of the offshore drilling issue in 1989, its members staged demonstrations, printed a newsletter and traveled to Washington, D.C. to lobby for their cause.

Typical island fisherman are small, owner-operators who earn most of their income from crabbing, tonging for shellfish, or gill netting. Although many fishermen believe that they

are overregulated, they usually comply with mandated conservation measures accorded by a local fisheries inspector. Many island fishermen, however, blame overfishing by large trawlers and pollution in Pamlico Sound for their declining catches instead of the island's fishing regulations.

Perceived threats to the local environment range from oil drilling to increased development on the island and the further deterioration of Pamlico Sound. Members of LegaSea are most concerned with potential offshore oil drilling. They fear oil spills from tankers, pipelines or storage tanks, as well as the general detritus tossed from offshore rigs which they say could wash ashore. Others are more concerned with increased development on the island which they say will further strain septic and water systems. During peak weekends in the summer when the island's water system is pushed to its capacity, some residents complain of smelling raw sewage from overburdened septic systems. Another heated environmental issue, especially among older residents, is the water quality of Silver Lake. Many remember swimming, fishing, or clamming in the harbor as children, but the increase in boat traffic and the number of septic drain fields nearby has caused water quality in the harbor to steadily decline. The harbor has been closed to shellfishing for years because of pollutants and high coliform bacteria counts. As a result, no one swims in Silver Lake any more.

Ocracoke's fishermen feel especially threatened by the declining water quality in Pamlico Sound. The culprits most often mentioned are TexasGulf, Inc., a large phosphate mine on the banks of the Pamlico River, urban waste water and agricultural runoff. Many fishermen also blame large trawlers working the sound for killing many of the juvenile fish in their bycatch.

*Major Changes Of The Last Decade* The major changes in the last decade on Ocracoke have been the rapid growth and development of the island. This growth has resulted in a permanent population increase of approximately 200 residents and a near doubling of business establishments. The most visible changes are the multi-story hotels that were built on the island in the early 1980's. These changes are most likely the partial result of a nationwide trend of rapid growth in coastal communities during this period, spurred by steadily increasing seasonal populations.

One impact has been the growth of local employment. Seasonal jobs in service industries are abundant, creating a somewhat migrant work force of college students and others who come to work in the restaurants, shops and bars. However, there are still few opportunities in the professional job sectors on the island. Moreover, during the summer, the village often feels as if it exceeds its maximum capacity. More than one resident has suggested limiting the daily number of vehicles allowed on the ferries.

Changes to the physical appearance of the village are almost universally disliked by the older residents who vividly remember the quiet Ocracoke of their youth. Younger residents and newcomers to the island are more pragmatic. They often see growth as inevitable and a source of potential income, but also as something to be controlled. Many residents cite the

land boundaries of Ocracoke as a physical limitation to growth, but others say that any increase in public services could lead to uncomfortable densities on the island. The proposal to build a central sewage system is a prime example of the conflict over future growth. Most residents readily admit that a central sewer system is needed, but many resist it, citing fears of increased growth.

***Population Flux And Factions*** Ocracoke has grown steadily at approximately 100 to 150 new permanent residents each decade since 1970. Before then, the island's population had remained at around 400 people since the turn of the century, save for a brief increase during World War II. Much of the population increase has come from retirees and young entrepreneurs who escaped to the island in the 1970's and began building small businesses in the 1980's. The permanent residents are now about evenly divided between native Ocracoke families and newer immigrants. One of the major implications and conflicts of this population growth has been the declining political power of native families.

Ocracoke has a long and celebrated tradition of laissez-faire government. The village has never been incorporated and local families valued their independence and that of their neighbors. Boundaries were rarely, if ever, surveyed and whatever community leadership was called for was usually provided for by a respected elder, captain, or other member of the community.

With the influx of non-islanders, however, came an increasing demand for more formal community services. Newer residents wanted surveyed deeds, better police and fire protection, trash collection, and dependable water and electric service. The community could no longer be governed as an extended family.

Thus far, the village of Ocracoke has resisted incorporation, although many residents from both groups see the benefits associated with increased community control. Part of the reluctance to community control may stem from the fact that native families feel somewhat intimidated by the emergence of an educated, wealthy and politically active class on the island comprised of retirees and newcomers. The native islander's political interest ranges from passionate to completely ambivalent, and those who are politically active have to fight a true sense of apathy and disenfranchisement among their relatives. The most recent election of Ocracoke's representative to the Hyde County Board of Commissioners is a classic example. Members of the native island families met and drafted a candidate from their midst to run against two newcomers to the island, one of whom was affiliated with one of the high-rise hotels. The native islander won decisively on Ocracoke but almost lost the election in open balloting on mainland Hyde County.

***Social Stratification*** Distinct social strata exist on the island. Some of the retirees are extremely wealthy, while others live off social security or civil service retirement benefits. The island supports a relatively large and diverse entrepreneurial class, as well as a number of government employees who work for the park service, the ferries, the school and other local government positions. No Ocracoke resident was receiving social service benefits at

the time of this writing. The island, however, is egalitarian in some respects. A retired stockbroker from New Jersey may live next to a subsistence fisherman and they will both call each other by their first names.

***Seasonal Differences*** As mentioned before, Ocracoke's population fluctuates widely between the winter and summer months. The small, tightly-knit community in winter dissolves into the rush of the summer when businesses and tourism peak. Sailboats and yachts crowd Silver Lake, while traffic becomes more and more congested. Restaurants have waiting lines for dinner and the park service campground fills to capacity. In the fall and winter months, the community regroups, makes repairs, takes vacations and addresses village business. On a more social level, there is more time in the winter to visit with neighbors and chat over the garden fence or over a cup of coffee at the local fish house. The volunteer fire department has time to practice its drills, and the local electric crew can repair old lines. In the winter, there is no longer the sense of rushing urgency that prevails in the summer. Residents seem friendlier, less harried, and more willing to talk to strangers. When the tourists leave, it's almost as if the island is returned to the residents who suddenly remember the joys of living there. Talk seems to revolve around the latest storm, the oyster harvest, or rumors of a bluefish run.

***Local Fish Harvesters*** Not long ago, a local newspaper ran a profile on the only woman fish harvester on Ocracoke, a young, part-timer who fished gill-nets. This woman represented the exception rather than the rule on the island. Ocracoke's commercial fishermen are typically male and range in age from high-school graduates to old-timers who have fished the island all their lives. These men's fishing effort also vary. Some own several boats in the 30 to 40-foot range, while others may own only a small clam skiff. Only a few men fish full-time, and most supplement their income with their catches. For example, of the fishermen interviewed, one was a retired Coast Guardsman, another managed a motel and another owned a store. One of the older fishermen on the island also sells dolls and crafts, as well as offering septic tank and backhoe services. It's also common for fishermen to be involved in several fisheries depending on the season. Gill-netters will also set crab pots and may even tong oysters if the season is good and prices are high. Fishermen sell their catches to the local fish house, crab house, or clam house, and some even contract with local restaurants to provide them directly with fresh fish during the tourist season.

Ocracoke's fishermen are rarely found indoors, but when bad weather blows in bottling up the fleet in the harbor, they do have a few favorite haunts. The fish houses are usually good for a chat, while Albert Stryon's store which is owned by a local fisherman and his wife, keeps a pot of fresh coffee brewing for the fishing clientele. A local restaurant, the Crab Shack, is a breakfast hangout, while the Jolly Roger, the island's only year-round bar, is a good place to hear fishing tales in the evening. Ocracoke's fishermen, like others along the banks, have a reputation as hard drinkers. This reputation is enhanced by stories of young men going off the island and returning with a trunk-full of beer and liquor which they would proceed to drink until it was gone.

Ocracoke women are less gregarious than the island's fishermen, but they do stop to chat at certain places, especially the post office which is something of a listening post and meeting place for most of the island. Traditional island families are reputed to be very matriarchal, with the women keeping the family clothed and fed, while the men scrape what living they can from the sea and other ventures. Supposedly, it is not uncommon for young island families to dine with their parents, only the wife will dine at her mother's and the husband will dine at his. Along with caring for their families, most women on the island also work and they are represented throughout the workforce. Island women work on the ferries, both on the vessels and in the headquarters and reservation office. They work for the park service, sell real estate, operate and own specialty stores and restaurants, provide computer printing services to local businesses, and manage motels and bars.

Ocracoke's fishermen are a pessimistic group, especially on the subjects of their fisheries, their futures and their local environment. They commonly describe themselves as "endangered species." The fishermen's number one concern is the water quality of Pamlico Sound where most of them fish, and which harbors the estuaries and nursery grounds of many of the species they harvest. Most of the fishermen believe that the primary cause of fisheries' decline are industrial pollution from TexasGulf, Inc., agricultural runoff and urban sewage. They also blame large trawlers for killing juvenile fish in their bycatch. Despite these specific catalysts, most fishermen seem to feel powerless to do much about it. A few are active in advocacy groups such as the North Carolina Coastal Federation, but by and large they simply subsist from year to year and watch their catches decline, while hoping that they will discover a new technique, that the fish will miraculously return, or that some of their competitors will drop out.

The conflict between commercial fishermen and recreational fishermen is not as intense in Ocracoke as it is on Hatteras Island to the north, where beach seiners compete directly with surf fishermen at certain holes. Ocracoke fishermen are aware of this conflict, however, and tend to side with their commercial fishing brethren. Since most Ocracoke fishermen also derive income from tourist businesses, they are less likely to complain about the influx of tourists and retirees.

***Property Values*** Property values on Ocracoke have skyrocketed in the last decade, a consequence of both increasing demand and the limited acreage available. Unlike Hatteras Island to the north, as property values have risen on Ocracoke so have property taxes. Hyde County, which has a poor, rural tax base on the mainland has increased property taxes several times over the last decade. In 1992, the county raised its tax rate again to \$1.08 per \$100 valuation, one of the highest rates in the state. Long-term Ocracoke residents are outraged by the increases, and claim that fourteen percent of the county population are paying nearly thirty percent of the tax base. Stories of older, fixed-income residents being forced to move because of increased taxation are common, although none could be verified. The high tax rate plus the paucity of county services have spurred a strong secession movement on the island. A group of islanders are currently studying the legal aspects of such a move.



Naturally, wealthy retirees or successful business people on the island are less affected by the high tax rates and see the potential value of increasing property values. The group that is most affected by these factors is young adults who can no longer find affordable housing on the island. According to a local realtor, very few island homes sell for less than \$100,000, while most sell for \$150,000 to \$200,000.

*Natives Versus Newcomers* "Natives," "permanent residents," or "local islanders," all refer to Ocracoke residents who were born on the island and have lived most or all of their lives there. The vast majority of these islanders belong to one of a half-dozen families who can trace their presence on the island to the 1700's. Although their roles in the community have changed somewhat, these families were the traditional fishermen, merchants, pilots and ship captains that inhabited the island for centuries. Many still work in traditional occupations, either as fishermen, builders, craftsmen, ferry captains, hunting guides, or a combination of these. They also still control much of the political power on the island, although their control has waned in recent years. Still, when controversial issues are discussed or voted on, such as incorporation of zoning regulations, votes often split along predictable lines: native families versus the newcomers.

"Newcomers" are residents who were not born on the island, but have moved there either to retire, start a business, or escape from civilization. Ocracoke became a haven from dropouts and hippies in the late 1960's and early 1970's. Many of these immigrants stayed and started businesses and are now reaping the benefits of increased tourist trade. One Ocracoke native characterized these people as "bums who came here in beat-up vans and now are millionaires." Although these newcomers may never be entirely accepted by the native islanders and may even be somewhat resented by them, the longer they live on the island the more entrenched they become in the fabric of island society. Some natives believe the new immigrants brought a much needed jolt of new blood and new ideas. The litmus test for acceptance seems to be how involved newcomers are in the community and how much they care for the island and its people as evidenced by their deeds. For example, few bad words are spoken of the local medical care provider or of the park ranger in charge of park lands on the island, both of whom have shown great care and respect for the island and its people. On the other hand, it may be that such positions in themselves, command respect, apart from the personalities filling the role.

"Tourists" are vacationers who provide the money and the markets that support many Ocracoker's lifestyles. Many natives and newcomers see them as a necessary nuance that bring such problems as traffic, increasing property values and pollution. While tourists are generally criticized, many residents look forward to the return of families who have been spending their vacations on the island for generations. Ocracoke is more of a family vacation spot than other islands, because it takes more planning to get there and usually visitors stay longer than a day or two.

The owners of tourist businesses are more growth-oriented than other residents, but true boomers on the island are rare. One local advocacy group, "Save Our Village," was

comprised largely of native families and advocated something of a no-growth policy. However, after suffering a few court defeats, the group became inactive. Most residents interviewed favored controlled growth that would retain Ocracoke's fishing village charm, while allowing tourist and other businesses to prosper. Their advocacy of growth was tempered, however, by concerns for the island's environment and the strain on public services. A local business association was active in the past and served as an informal town council. That, too, has since gone inactive. One resident described the village as a ship with no one at the helm.

***Religion/Churches*** There are two Christian churches on Ocracoke that have church buildings and support ministers. Two other congregations either use the fire station for services or meet in private homes. The oldest church on the island is the United Methodist Church, which has had a presence on the island since the early 1800's. During the Civil War, the Ocracoke congregation separated, forming the Methodist Episcopal Church North and the Methodist Episcopal Church South, reflecting the national schism within the denomination. The two groups reunified in 1938 and took down both church buildings using the material to build the present church, which was completed in 1942.

The smaller church is the Ocracoke Assembly of God which was formed more than 50 years ago by a woman missionary who used to row across Ocracoke Inlet to conduct house meetings on Ocracoke. It has about twenty to thirty members and its service is more evangelical. The church usually sponsors three revivals each year. This congregation also split a few years ago when a new minister was hired. The former minister and his supporters now meet in private homes.

The two churches hold ecumenical services at Christmas and Easter and work together on other community projects throughout the year. The Easter service is held at sunrise on the beach and is popular with residents and visitors alike. Ocracoke also has a small Catholic congregation associated with the Catholic Church in Nags Head. This group meets in the firehouse during summer, but members usually travel to the Catholic church in Buxton for services during the winter.

The United Methodist Church maintains a food pantry and local mission fund for those in need of food or financial assistance and each Christmas gathers donations of clothes and toys for needy children in mainland Hyde County. Since Ocracoke is predominantly white and the mainland predominantly Black, the church has been sponsoring weekend exchanges with mainland children to promote cultural awareness. It also conducts free "Young at Heart" dinners for residents over age fifty.

***Clubs, Service Organizations and Other Voluntary Associations*** The Ocracoke Volunteer Fire Department has about twenty-five members. The department plays an active role in the community, serving as both a service organization and an informal fraternal association among many of the men on the island. The second floor of the fire station has a large meeting room used for fund-raising bingo games, as well as for gatherings of church groups

or clubs. The bingo games, held weekly during the summer and monthly during winter, are popular with residents and visitors alike and provide friendly interaction between the resident and transient cultures. Bingo is the primary fund-raising activity of the fire department, providing some \$5,000 a year. Volunteers train two nights each month and attend week-long firefighting schools two or three times a year.

Ocracoke at one time had an association of small businesses which sponsored the annual Ocracoke Crab Festival and an annual surf fishing tournament. The association is no longer active.

During the 1950's, Ocracoke's Boy Scout Troop (No. 290) was one of two mounted Scout troops in the world. The Scouts used local Banker ponies for camping trips on the island. Each Scout was responsible for catching, maintaining and training a horse. The troop is still active, but no longer uses the banker ponies, now maintained by the National Park Service.

The Ocracoke Preservation Society was founded in 1982 to preserve significant historic structures on the island. The group recently renovated the 19th-century house of an Ocracoke sea captain to serve as a museum for the village. With the permission of the National Park Service, the house was moved to a lot on park lands just behind the Ocracoke Visitor Center near the Silver Lake ferry terminal.

*Interest Groups* Save Our Village, a local activist group, was founded in 1991 by local residents -- many from native island families -- who were concerned about the rapid development of Ocracoke and what they felt was inconsistent permitting by the Army Corps of Engineers and by state officials administering the Coastal Area Management Act (CAMA). Members said wealthy developers were using their influence to acquire permits allowing them to build in environmentally fragile areas, particularly federally-designated wetlands. The group contested a CAMA permit to allow the construction of a large house on the edge of Silver Lake, in what most residents considered a marsh. The group lost their case which caused some rancor among members. By late 1992, the group was inactive and members were unsure if it would resume its activities.

LegaSea was formed in 1989 with the sole purpose of fighting oil and gas development in North Carolina's offshore waters. It has between 500 and 1,000 members located throughout the Outer Banks. Ocracoke has an active chapter and members here describe themselves as the "radicals" of the group. Many Ocracoke storefronts bear signs against offshore drilling, and bumper stickers with similar messages are common. One shop in the village sells anti-drilling T-shirts, bumper stickers and pins. It also collects signatures for a petition against drilling as well as donations for the group. According to its owner, donations and sales of anti-drilling paraphernalia have provided about eighty percent of the funding for LegaSea's activities, which have included demonstrations at public meetings and lobbying trips to Washington, D.C. Their petition garnered some 16,000 signatures.

### 3.5.8.2 Social and Cultural Issues

Ocracoke informants were asked to name the five most important issues facing the community. The predominant issues are described below, beginning with the topic mentioned most often.

***The Environment*** The broad topic of the environment was the issue most often mentioned by island residents, specifically in the areas of water quality, pollution and coastal resource management. Much of this concern stems from the plight of local commercial fishermen. The majority of the respondents, if not fishermen themselves, were related to, married to or were friends with people in the fishing industry. Most blame the steady decline in landings over the past decade on the deterioration of water quality and the loss of estuaries and wetlands resulting from pollution and overdevelopment. "Fisheries are declining, water quality is declining and more people are getting into it," said one commercial fisherman. "The trawlers and poor water quality are killing all the fry." Another added:

The pollution in the rivers finally made it out here in the last four or five years. Fishing is down, crabbing is down. This year there were no oysters. All the oysters are dead.

Island fishermen usually fish with gill nets, crab pots, or harvest oysters and clams by hand. Many say most causes of the decline in fisheries are beyond their control. "Most fisheries have been declining to some extent for as long as I can remember," said a veteran fisheries enforcement officer who works on Ocracoke who also noted that:

A lot of it seems to be due to the increase in farm drainage on the other side [of the sound], increased building of houses shore side and improved fishing gear and equipment.

Water quality in Ocracoke's harbor of Silver Lake, locally known as "the creek" or "the ditch," is another area of public concern. According to a sixty-seven year old resident who grew up on Ocracoke:

The water [in Silver Lake] used to be clear as a bell . . . Now it has a grayish fungus. There used to be so many clams on the bottom it was like a field of golf balls. Now you couldn't eat them if you wanted to. It's a crying shame.

Another resident noted that "when we were growing up, we could swim in the Creek . . . Then ten or twelve years ago, about the time I turned 16, people stopped swimming in the creek . . . My sister's boyfriend got impetigo from swimming in the creek."

**Controlling Development** Uncontrolled development first became a major issue on the island in the early 1980's, when several high-rise (four-story) hotels were built near Silver Lake. Previously, the islanders had fought any attempts at zoning or incorporation, fearing that building regulations would be too restrictive. Since the village was unincorporated, all zoning and building ordinances were handled by Hyde County, whose permitting procedures are more attuned to the rural mainland than for a growing seaside resort. Faced with an increasing number of condominiums, marinas and speculative housing projects, the islanders agreed to stricter building ordinances in the mid-1980's. Since then, however, there have been problems enforcing it. Many residents say that lackluster enforcement of the code, as well as state CAMA regulations and federal wetlands laws have allowed overdevelopment to occur. "Laws ain't no good unless they've got somebody to enforce them," said one long-time resident. "If you want to do something illegal around here, you do it on the weekend." Three-quarters of those interviewed said controlling development was a major issue on the island.

Recent development controversies include a new marina under construction on Silver Lake, a dock that exceeded the length allowed in the permit built in public trust waters for a condominium complex, and the construction of a large house on the edge of Silver Lake in what most residents believed was a protected marsh. Save Our Village (SOV), a local activist group, fought against each of these developments, but by December 1991 had succeeded only in winning a court order to shorten the contested dock. The building of the house on Silver Lake was an especially difficult defeat for SOV members. Recalled one member:

CAMA came here and looked at the place and said 'there's no tide running under this house,' and boards were floating underneath it . . . I used to play in that area and it was a marsh. My brother used to go wire fishing there. Then these people tell us there's no marsh there.

Other islanders take a more moderate stance toward development:

Some people want no more building and others want to pave everything . . . I think most people want moderation -- small businesses and small houses . . . nothing more like [the large hotels] on Silver Lake.

**County Affiliation** Ocracoke has been a part of Hyde County since 1845, but recently there has been a growing movement among islanders to leave Hyde County and join Dare County, which includes Hatteras Island to the north. As Ocracoke has grown, county services have become inadequate, many residents say. The county seat of Swan Quarter is a two-hour ferry ride away. Maintenance of Ocracoke School and support for Ocracoke's fire department, rescue squad and health center are seen as lacking. Some Ocracoke residents also say they feel closer ties to Dare County which includes most of the other Outer Banks

islands. When islanders go shopping for groceries or other items not found on Ocracoke, they usually go to Dare County stores in Buxton or Nags Head. "The only reason anybody goes to Swan Quarter is if they have jury duty or to visit relatives," one resident said.

One of the underlying causes for Ocracokers' dissatisfaction with Hyde County government lies in the growing disparity of wealth between the island and the poor rural county. According to knowledgeable sources, Ocracoke provides about thirty percent of Hyde County's property tax revenues. Only within the last year were occupancy taxes collected from hotels and motels on Ocracoke earmarked for island projects.

***High Property Taxes*** Hyde County has never been a wealthy county. Its wet, mucky soils are more suited to corn and soybeans than more profitable North Carolina crops such as tobacco, cotton or peanuts. In addition, large swaths of the county are in federal ownership and not on the tax roles. As federal funds for state and local programs have dwindled in the 1980's, the county has had to shoulder more of the burden for mandated programs. More than eighty percent of the Hyde County budget are spent on state and federal programs, such as schools and social services, according to sources. Of the approximately 5,000 residents of the county, some 2,200 receive social services benefits for which the county pays twenty-five percent, according to one county official. Like many other rural counties, Hyde is facing a budget crunch. Last year, in order to meet its fiscal obligations, Hyde County raised its property tax rate from \$.94 per \$100 valuation to \$1.06 per \$100 valuation.

The increase angered many Ocracoke residents, who have seen their property values skyrocket in the last decade. Many say Ocracoke, with only fourteen percent of the county's population, is providing an unduly large portion of the county's revenues while receiving little in the way of county services. High property taxes was one of the major issues mentioned by Ocracoke residents, especially those on fixed incomes. Some claim that high taxes and property values are forcing elderly residents to leave the island and preventing young islanders from purchasing homes there.

On the other hand, Dare County, which has far more developed coastal area, has a property tax rate of \$.39 per \$100 valuation (as of 1991). Proponents of change in counties argue that Dare County would provide better health care, including renewed helicopter ambulance service, a physician to fill in for the current physician's assistant when he goes on vacation, and full-time, trained paramedics to operate the island's ambulances. They also contend that the move would give Ocracokers better access to a professional and progressive county government. Critics of the plan say the move could cost Ocracoke its school -- specifically that grades six through twelve would be bused to schools on Hatteras, an action most residents oppose. Future development is another concern. "Dare County is a growth-oriented county," said one local contractor. "Their building restrictions are not as tough as ours."

Any shift in county lines would require action by the North Carolina General Assembly, which seems unlikely in the near future. Dare County officials have expressed some willingness to accept Ocracoke, but the issue is far from resolved.

**Transportation** Keeping transportation routes open, especially Highway 12, the only road from the village to the Hatteras ferry landing, is an ongoing concern of residents. During strong winter storms, the road is often flooded by ocean overwash at a narrow part of the island a few miles south of the landing, effectively shutting off the closest overland access to hospitals and other mainland facilities. The severity of this problem was illustrated during several storms in the fall and winter of 1992, which closed Highway 12 not only on Ocracoke, but on Hatteras Island and in Nags Head as well. Although residents stressed the importance of keeping the road and the Bonner Bridge (spanning Oregon Inlet) open, all of those interviewed were opposed to the construction of a bridge between Ocracoke and Hatteras Islands, suggesting that their isolation is in many ways highly prized. "Constructing a bridge between Ocracoke and Hatteras would totally change the makeup and psychology of the village," said one storekeeper.

**Health Care** Although health care on the island has improved markedly since the current physician's assistant took over the local health center five years ago, residents realize that the health services offered by the center are limited. Some older island residents with chronic illnesses have moved to Morehead City or Elizabeth City to be closer to full-service hospitals. Residents are also keenly aware that running the health center is an extremely demanding job, requiring the health care provider to be on call 24-hours-a-day for as long as he or she is on the island. Keeping a doctor has been difficult. Since the health center opened in 1981, it has been run by two National Health Corps doctors (one stayed only one year) and the current physician's assistant. The health center was without a doctor for an entire year in 1986. A doctor from Hatteras came to the island once or twice a week. One of the major arguments offered for joining Dare County is that of improved health care, including providing a doctor to take the duties of the current physician's assistant when he goes off the island. At present, he has no replacement, leaving Ocracoke without a health care provider when he is away. As a result, the physician's assistant left the island only two days last year between Memorial Day and Labor Day.

**Education** Education on the island, specifically the management of Ocracoke School, is another issue that has recently come to the forefront on the island. The island school is the modern-equivalent of the one-room schoolhouse and its management has long been progressive, yet tailored to island life. For example, students now take foreign language classes via satellite, yet everyone goes home for lunch. The student-to-teacher ratio is an enviable ten-to-one and parents with special skills often volunteer to teach classes. Recently however, the long-term principal of the school retired and the new principal, who arrived from a large high school in Eastern North Carolina, has ruffled some feathers with a more authoritarian management style. He has been criticized for suspending students for tardiness, for not teaching (he has recently begun teaching physical education classes), and for hiring his wife as a guidance counselor and his daughter as a substitute teacher without first

advertising the openings on the island. About thirty parents have signed a letter to the district school superintendent to address these grievances, but as of December 1992, no action had been taken.

***Social Change and the Future*** Like other small coastal communities in the United States, Ocracoke is going through an identity crisis. Even though tourism is now the mainstay of the island's economy, the community still has deep cultural and economic roots in the commercial fishing industry. Even newcomers to the island seem sympathetic to the plight of the local fishermen. Many say they want to maintain the friendly, small-town, fishing village atmosphere. This atmosphere, combined with the peacefulness, relative isolation and the great natural beauty of the island are some of the major reasons residents choose to make Ocracoke their home.

These same attributes, however, are fueling an economic and development boom that is changing the island's social and economic structure in ways residents have been unable to control. Although the permanent population is only about 700, on peak weekends in the summer, there may be 3,000 people on the island. Specialty shops, bars, bed-and-breakfast inns and restaurants have sprung up to cater to the tourist trade, while off-island developers have begun building multi-story condominiums that clash with the predominant, single-story clapboard homes. Retirees from northern areas of the country are also moving to the island or buying second homes there, driving land prices out of reach of many local families. "A little piece of land is becoming like a priceless jewel," one resident said. "People who want a piece of Ocracoke will pay anything to get it."

Many native islanders and long-time residents are frustrated by the changes and by the defeats they have suffered at the hands of what they say are shrewder, wealthier developers who come to the island to make a quick buck and have the time and resources to get around protective ordinances and laws. "We've been fighting it for such a long time," said one resident who has been active in Save Our Village:

It seems like [state officials] just shut the door in your face . . .  
You get people frustrated and they don't want to get involved.

There seems to be little consensus on the island's future, only resistance toward change and little cohesive leadership to bring about desired results. Native islanders are, for the most part, people who have existed happily under a laissez-faire system of local government. They don't like what is happening to their island, but many see little they can do about it. One resident likened the community to a "ship without a rudder." There is an "us" vs. "them" attitude on the island, although the social barriers between the native island families and recent immigrants are starting to come down. Still, one native islander voiced a common concern:



They move down here and then they try to implement their ways on us. They have no roots. They don't care. I've seen it time after time. They come in and want to be president of this group or that, then someone offers them a few dollars more for their house and off they go.

On the other hand, a few seasonal residents who have been coming to the island for decades have quietly brought improvements to the community and are respected members of island society. The volunteer fire department and rescue squad have benefitted from their philanthropy.

The plight of the local civic club is a prime example of the native/newcomer dichotomy. In the early 1980's, the group was very active with both new and native residents. It operated as an informal town council, and would often go to Raleigh to lobby the state legislature for more ferries, or other improvements. As it gained more influence, however, the group began to have internal disputes that were split along the native/newcomer lines. "We're not the most boisterous, vocal people," said one native islander who went on to say:

If you take a bunch of people that see things one way and then another person gets in there and fights hard for what they want, well, people just got tired of butting heads. When they started getting involved in other people's business, telling them what to do, people just said to heck with it. Now you see it turning around. People are getting concerned about the community.

### **3.5.9 Summary**

Despite its eclectic mix of native families, sixties radicals, seventies drop outs, and eighties entrepreneurs, there is a strong sense of community and a desire to keep Ocracoke from becoming just another coastal tourist town. To fight this trend, a dozen or so young and middle-aged professionals on the island are becoming more and more involved in local politics, and in an informal way are attempting to chart the island's future. Some are taking a renewed interest in incorporating the village to give residents more local control, while others are studying the possibility of transferring the island to Dare County. Many native families continue their focus on traditional ways and seem resistant to change. These seem to be the overriding concerns of Ocracokers: the environment, especially as it affects commercial fisheries; and the future development of the island with the concomitant increase in taxes, property values and demands on public services. As changes continue to affect this island community, these and other issues will surface to challenge residents and their island.

## 3.6 ATLANTIC

### 3.6.1 Introduction: Atlantic and the Case Study Communities

Atlantic is a small community with a long history of dependence on commercial fishing and is an important seafood landing area for the county. Atlantic is also a symbol of independence and perseverance for other commercial fishermen in the region. The dependence of Atlantic on commercial fishing in waters potentially affected by the proposed OCS exploration activity was a primary factor in selecting the community for study.

Atlantic residents typically take pride in their ocean resource-based economy and lifestyle. In the absence of other local opportunities, the difficulties involved in earning a living through fishing may be related to a recent decline in the local population in a county otherwise experiencing significant growth.

### 3.6.2 Physical and Biological Environmental Overview

Atlantic is located in the extreme northeastern part of Carteret County, adjacent to Thoroughfare Bay and Core Sound. The area is flat and swampy, a situation that significantly limits housing and commercial development. This marshy location breeds mosquitoes in summer, another factor that may hinder development.

Atlantic is protected from the ocean by Core Banks, a barrier island which comprises the Cape Lookout National Seashore. Its average summer temperature is seventy-six degrees and is cooled by a prevailing southwest wind. Winter temperatures rarely fall below thirty-two degrees, and average forty-five degrees. Average annual rainfall is 53.8 inches. Snowfall is minimal, with an average annual accumulation of 1.5 inches (Carteret County Economic Development Council 1991b:10).

Historically, important natural resources in the Atlantic area included timber, game mammals, shellfish and fish. Living marine resources have been most significant in recent decades. Fishermen benefit from the "seagrass beds and their associated finfish and shellfish resources" that surround the town (Holland 1991:I-92). Carteret County has ranked number one in the state for total seafood landings and dockside value since 1977, attesting to the importance of marine resources in towns such as Atlantic (Holland 1991:I-38).

There are several endangered or threatened plant, animal, and birds in the general vicinity of Core Banks and the Cedar Island Wildlife refuge. Historically, residents of "Downeast" Carteret County regularly ate Green, Loggerhead, and Kemp's Ridley sea turtles. This has fallen into disfavor, especially since the Endangered Species Act makes the harvest of turtles illegal. The Piping Plover (*Charadrius melodus*) is a rare species of bird that nests along North Carolina's Outer Banks. Atlantic residents, who for decades have enjoyed boating out

to Core Banks to sun and clam for recreation, now complain that major portions of the Banks are roped off for the benefit of nesting birds. One woman expressed resentment that the National Park Service "takes us for idiots - we've identified those nests for years and my children were always taught to avoid walking near them . . . now they rope us right off the beach and put up signs."

Near Drum Inlet in Core Sound is the New Dump Island, an area of statewide priority as it is classified as a "colonial waterbird nesting island" (Holland 1991:I-89). This island contains large nesting colonies of royal tern, sandwich tern and laughing gull; it is furthermore inhabited by brown pelicans, great egrets, tri-colored herons and snowy egrets. New Dump Island is on the North Carolina Registry of Natural Heritage Areas.

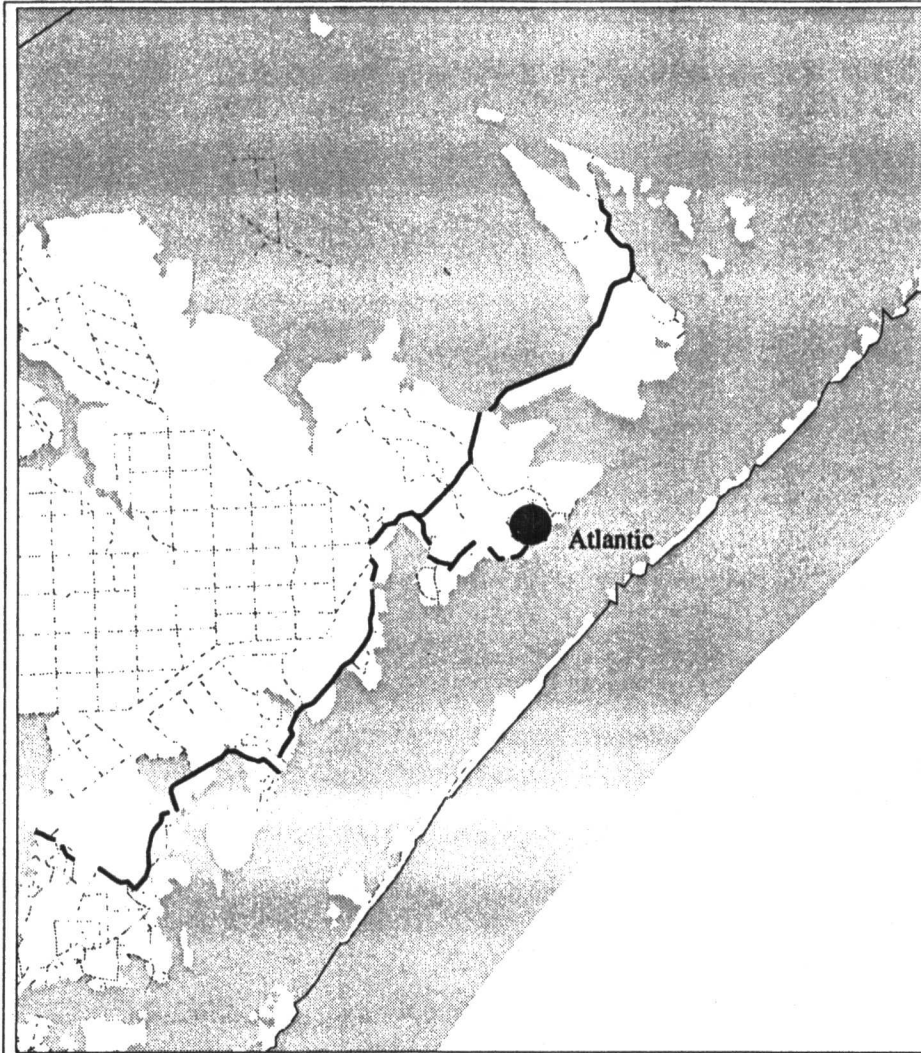
Near the intersection of Core and Pamlico Sounds off Cedar Island are the Core Sound (Wainwright) Nesting Islands. Although these islands have no protected status, they are considered to have statewide importance: great egrets, tri-colored herons, snowy egrets, little blue herons and black-crowned night herons nest amid well-developed shrub thickets. Just west of Atlantic is the "Atlantic Natural Area." This land site consists of "swale topography which may have formed along an estuarine rather than marine shoreline" (Holland 1991:I-86). It consists of a mixture of savannas and pocosins with scattered long-leaf pines over wiregrass and shrubs. This site has statewide significance but no protection status.

### 3.6.3 Community Chronology

The first white settlers of Atlantic were of English and Scotch Irish descent. The precise time of settlement and place of origin of these early settlers is unknown. The area was probably desirable since it was surrounded by acres of prime hunting grounds and was close to abundant maritime resources. The area was originally called "Hunting Quarters." The first land grant in the area was made in 1740 (Hamilton 1958).

Atlantic became a distinct municipality with the opening of the first post office in 1880 (Nance and Greene 1992:59). In the late nineteenth century, the area had three grist mills, a salt factory, a fish factory, some boat-building houses, a brick kiln, an oyster canning factory and a few large stores selling "anything from food to furniture" (Hill n.d.:61). Residents subsisted primarily by farming and commercial fishing.

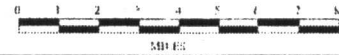
Atlantic Academy, a twelve-grade school serving children from Atlantic and the nearby communities of Williston, Stacy, Sea Level, and Cedar Island (Hill n.d.:107) opened in 1896. When East Carteret High School opened near Beaufort in 1966, the Atlantic school taught first through eighth grade only, as it does today (Hill n.d.:107).



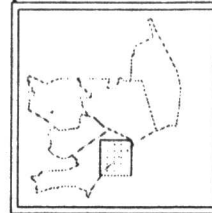
# COASTAL NC STUDY AREA BY COMMUNITY

## Legend Explanations

- Case Study Communities
- County Boundary
- ▨ Water Body
- Land Mass
- State Hwys
- ⋯ County Roads
- - - Local Roads



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Atlantic and other communities in the northeast part of the county were not accessible by land until a paved road was built in the 1930's (Nance and Greene 1992:59). The first road connecting Atlantic to Beaufort and beyond was highway 70. Bridges built at this time were flat and wooden. Since few people owned cars at this time, the road did not instantly change lifeways in Atlantic. People continued to shop at one of the seven stores (e.g. grocery, furniture, general, and cafes). From 1941 to the close of World War II, a bus travelled to and from Atlantic twice a day; the "Seashore bus" cost twenty-five cents. Electricity was brought to Atlantic in the 1930's. After the war, many people bought cars and began driving to town for everyday needs. The local cafe, stores and a movie theater closed, unable to compete with the glamour of the "big cities" of Morehead and Beaufort. The last general store closed in 1992, as the result of the success of the Atlantic Red and White grocery/hardware store.

In 1971, the U.S. Army Corps of Engineers attempted to create a passage for fishing trawlers through Core Banks directly across from Atlantic. Shoaling sand soon made the channel too shallow for most boats to use. "Old Drum Inlet" was opened by a storm in 1933 and was used as a point of passage until closed by a southeast blow in the 1970's. "New Drum Inlet," created about a quarter of a mile south of Old Drum Inlet, succeeded in "flushing out" the sound with a better flow of ocean water, but was not deep enough for vessel passage, save for flat bottom skiffs at high tide. Larger vessels, which traverse open ocean waters, exit the sound via Ocracoke Inlet or, less frequently because of the more circuitous route, Beaufort Inlet.

Throughout the nineteenth century, Atlantic was relatively self-sufficient economically, as evinced by the presence of stores, grist mills, a salt-factory, a brick kiln, boat building houses, schoolrooms and so on (Hill n.d.:61). The county mail boat which regularly visited Atlantic kept the community connected with the larger world (op. cit.).

The community's major fish houses were developed in the mid-twentieth century. The key fisherman in the area, who began his career pound netting, ran a "buy boat" (used to transport fish from working vessels to fish houses) for a Stacy operation in 1925. He would oftentimes buy fish from watermen "on the spot." He bought into small, pre-existing fish houses in Atlantic in the 1930's, and in turn purchased fish houses in Southport, Beaufort, Harkers Island, Stacy, Cedar Island and other locations. He came to own a fish house and ice plant in New Bern until the "Urban Renewal" project came about and operated a run-boat that travelled to Hatteras daily until the 1950's. Although most of his outlying fish houses phased out over time, his Atlantic fish and ice operation grew. His seafood company was established in 1936, incorporated in the 1950's and turned over to his two sons. The company operated a fleet of vessels and came to be one of the largest employers in Downeast Carteret County. The business continues to be family owned and operated (Hewitt 1990).

"Mr. Luther" operated a clam house and store in Atlantic in the 1940's. His daughter-in-law's grandfather ran a fish house in Vandermere, North Carolina. After the grandfather's

death in 1950, Mr. Luther, his wife, his son and daughter-in-law mortgaged their homes and expanded Luther Smith and Sons Seafood Company to accommodate a Vandermere long hauler crew. Mr. Luther's son soon bought him out and continued to expand the company. A wooden boat was built at this time that mainly harvested crabs. In the 1960's and 1970's the company built four wooden trawlers designed after northern vessels. These primarily fished New England waters. Since the 1970's, the company has purchased and built several steel trawlers, which are docked at the Smith fish house in Beaufort and represent one of the largest ocean-going fleets in the region. Luther Smith and Sons Seafood has impacted Atlantic and the larger county tremendously in providing work and incoming revenue (Hewitt 1990).

### 3.6.4 Demographic Characteristics

#### 3.6.4.1 Population History

In 1900, 1,308 persons were counted as residents of Hunting Quarters and 1,504, in 1910. More recent population figures are depicted in Table 3.6-1.

<b>Table 3.6-1 TOTAL POPULATION: ATLANTIC</b>	
<b>Year</b>	<b>Population</b>
1930	685
1940	711
1950	844
1960	902
1970	814
1980	810
1990	808
Source: United States Census Bureau	

### 3.6.4.2 Recent and Current Population Characteristics

**Total Population** According to the U.S. Bureau of the Census, the total population of Atlantic was 808 in 1990, a 0.2% reduction in total population since 1980. The population of Atlantic has decreased every census period for the past four decades, for an overall reduction of 10.4% since 1960. However, the most significant change occurred between 1960 and 1970. Other rural townships in Carteret County have grown during the period 1960 to 1987. Most of the growth in rural township areas was attributed to residential development along the waterfronts (Atlantic Land Use Plan 1991), something that Atlantic has not experienced. Atlantic Township's population density was about sixty-eight persons per square mile in 1990.

**Age/Gender Distribution** According to the 1990 census, fifty-one percent of Atlantic's residents were female and forty-nine were male. In the same census year, twenty percent of the population were sixty-five years old or older, while eighteen percent were under eighteen years of age. Sixty-two percent of persons in Atlantic are between eighteen and sixty-four years of age. The median age of the residents in Atlantic was forty years (U.S. Bureau of the Census) in 1990.

**Ethnicity** The vast majority of the residents in Atlantic township are Caucasian, as is true of almost all Downeast communities. Of the 808 residents of Atlantic, 800 declared themselves to be Caucasian, six Native American, and one Asian or Pacific Islander (U.S. Bureau of the Census 1990).

**Household Information** The 1990 census counted 352 households in Atlantic, 56.5% of which were classified as "family households." There were an average of 2.3 persons per household. Additional household information for Atlantic is presented in Table 3.6-2.

**Housing Information** According to the U.S. Bureau of the Census, there were 426 housing units in Atlantic Township in 1990. Table 3.6-3 depicts summary housing information for the township for the 1990 census year.

<b>Table 3.6-2 HOUSEHOLD INFORMATION 1990: ATLANTIC</b>	
<b>Census Category</b>	<b>1990</b>
Total Number of Households	352
Average Number of Persons per Household	2.3
Percent of Married-couple Families	56.5
Percent of Male Householder Families	4.0
Percent of Female Householder Families	7.3
Percent of Non-family Households	32.1
Percent of Householders Sixty-five or Older	46.3
<b>Source: U.S. Bureau of the Census</b>	

<b>Table 3.6-3 HOUSING INFORMATION 1990: ATLANTIC</b>		
<b>Type of Unit</b>	<b>Number of Units</b>	<b>Median Value/Mean Rent</b>
Total housing units	352	--
Owner-occupied units	298	\$56,900
Renter-occupied units/vacancy rate	54/6.9%	\$225
Mobile homes	101	--
Vacant housing units	74	--
Units vacant for seasonal use	38	--
<b>Source: U.S. Bureau of the Census</b>		



### 3.6.4.3 Seasonal Variation in Population

Atlantic's permanent population has slowly declined in recent years. Atlantic Township (which includes rural areas outside of town limits) showed growth, however, in the non-permanent peak season population. From 1970 to 1987, the visiting "recreational population" grew from 993 to 1431 persons -- a 44.1% increase (Holland 1991:I-18). Atlantic's close proximity to Core Banks makes it an increasingly popular destination for duck hunters, surf fishermen and bird watchers.

### 3.6.4.4 Local Population Issues

Atlantic is socially and ethnically homogenous. The local population is almost exclusively Euro-American and many residents hail from long-established fishing families in the community. Extensive kinship ties are typical in fishing communities in the region (Sabella, et al. 1979).

Atlantic's slow population decrease may be best attributed to a lack of occupational alternatives in the area. Those persons who choose not to fish or are unable to make a living through commercial fishing either compete for local minimum-wage jobs in the service industry or leave the area in search of better opportunities. In recent years, parents in commercial fishing families report that they have typically encouraged their children to get a college education or to seek military careers instead of following the family tradition of fishing. This is not because commercial fishing is no longer a valued occupation, but because Atlantic natives foresee an increasingly difficult economic climate for commercial fishermen resulting from a growing scarcity of some fish stocks and greater restrictions on fishing practices.

## **3.6.5 Economic Characteristics**

### 3.6.5.1 Economic History

Old timers report an economic boom directly after World War II, then "nothing." The 1950's and 1960's were locally depressed years; fishing was mediocre and Drum Inlet had closed. During this period many fishermen temporarily left the community to get jobs on tug boats and dredges. Some compared the slow years of the 1950's to the depressed fishing industry in recent years. Depressed times occurred whenever shrimp were scarce. For example, during one year in the 1970's, no species of inside shrimp could be found. Some fishermen tried harvesting Florida waters that season, and most experienced economic hardship.

From the nineteenth century to the present the primary occupation in the community has been commercial fishing. Although Atlantic vessels traditionally work fishing grounds in Core and Pamlico Sounds, many boats now fish a broad area of the Atlantic Ocean from Florida to the Maritime Provinces in Canada.

### 3.6.5.2 Local Business/Industry

***Commercial Fishing*** The community of Atlantic contributes significantly to the county's highly productive fishery. Two of the largest seafood dealers in North Carolina are based in Atlantic. Both are family owned businesses that have operated since the late 1930's. These companies own fish houses in Harkers Island and Beaufort, and large steel vessels that fish local waters and fishing grounds off the New England and Canadian coasts. Dozens of smaller, privately owned vessels fish Core and Pamlico Sounds. One aquaculture business, a clam farming operation, is located in Atlantic.

Commercial fishing is the most important component of private sector employment in the immediate Atlantic area. According to DMF, 185 fishing licenses were issued in Atlantic in 1991. Commercial fishermen in Atlantic keep busy by harvesting different species throughout the year. Shrimping in Core and Pamlico Sound is critical from spring to early fall. Most of the Sound fishermen depend on shrimping for at least half their income (Garrity-Blake 1992). Oystering was once a significant source of income until red tide, a natural toxin produced by certain microorganisms, devastated oyster beds in the late 1980's. Oysters are also highly susceptible to disease, and like clams, are off-limits for harvesting after heavy rain due to problems associated with freshwater runoff. Fishermen switch gear for crabbing, clamming, or scalloping, depending on the availability of the resource and the latest harvesting regulations.

Fishermen catch spot, croaker, mullet, grey trout, flounder, bluefish and puppy drum with gill nets, pound nets, or long-haul nets (a net pulled between two boats that is similar to a purse seine). The menhaden fishery is a specialized, intensive enterprise that uses large factory vessels, net boats and spotter planes to capture large schools of the oily fish. Many residents have worked as captains, mates, engineers, cooks, or crew on local menhaden vessels based in Beaufort or in similar operations in the Gulf of Mexico. Over the course of a lifetime, it is common for a single dedicated fisherman to have worked in all phases of Atlantic Ocean fisheries.

For the offshore fisheries, fishermen use vessels varying from privately owned thirty-five to forty-five foot trawlers to company-owned steel trawlers up to ninety feet in length. The smaller vessels often concentrate on the flounder and shrimp fisheries off the North Carolina and South Carolina coasts, while the larger vessels often work waters south of New England for groundfish species and sea scallops, and waters south of Cape Hatteras for shrimp. These vessels primarily trawl or dredge, depending on the fishery. Fishing trips may often one to two months. Atlantic fishermen are also finding a market for exotic species such as

monkfish, "blowtoads" and certain sharks. These are often sought by Japanese seafood dealers.

Shrimp is probably the most significant fishery in Atlantic, since decline would be most harmful economically. According to DMF (personal communication 1992), shrimp is consistently the top shellfish in terms of value, and likewise is most lucrative to harvesters. Furthermore, the shrimp season is longer than most other fisheries. Most Atlantic fishermen harvest shrimp on weeknights from about mid-April to October or November. Vessels range from twenty-four to forty-five feet in length, and are typically shallow-drafted, white wooden boats with a small cabin. Vessels commonly pull one or two flat trawls with a headrope length of twenty-eight to forty feet long (Garrity-Blake 1992). Atlantic shrimpers typically fish alone, since they cannot afford to pay a crew. Shrimpers trawl in a circular fashion, preferably near their home community in Core Sound, with several other vessels. They keep each other company with much chatter over VHF radio. While trawls are the most popular method for harvesting shrimp, channel nets and butterfly nets are also used. Estuarine shrimp trawling is prohibited one hour after sunset on Saturday to one hour before sunset on the following Sunday. Trawls must have a mesh size of one and one half inches or greater. Primary nursery areas and permanent secondary nursery areas are protected from commercial harvest, although some of the latter may be opened by proclamation from August 16 to May 14 (Garrity-Blake 1992).

Atlantic fishermen who trawl for flounder from New England to North Carolina are usually crew members of large steel vessels that are owned by an Atlantic dealer but landed and docked in the deepwater port of Beaufort. These vessels have typically landed flounder in northern ports such as New Bedford, Massachusetts, mid-Atlantic ports like Hampton, Virginia, as well as Wanchese or Beaufort/Morehead. However, the quota system established by some states have limited out-of-state landings. Atlantic fishermen who harvest flounder in Core Sound do so primarily by the use of pound nets. Pound nets are effective and efficient in targeted flounder, as "only marketable fishes are killed and the unwanted bycatch is returned alive to the water" (Monaghan 1992:1). Pound nets are nets held stationary by stakes. The fish are directed into enclosures or pounds by means of leads" (Burns 1992:1). The season is mid-spring to early fall. Pound nets capture multi-species of finfish, including summer and southern flounder, gulf flounder, menhaden, red drum, butterfish and harvestfish. Summer flounder dominates the offshore winter trawl fishery; southern flounder drives the Core Sound pound net fishery (an estimated eighty percent of the catch by weight (op cit.:3).

Atlantic fishermen use different methods of harvesting multiple species of fish, including the above mentioned pound net fishery. Locals tend to refer to this multiple-species fishery as "fish," as opposed to flounder or shrimp. The long haul seine fishery begins March or April to November. The targeted species are Atlantic croaker (*Micropogonias undulatus*), spot (*Leiostomus xanthurus*) and weakfish (*Cynoscion regalis*); and less commonly bluefish (*Pomatomus saltatrix*) and spotted seatrout (*Cynoscion nebulosus*). Atlantic fishermen harvest the haul seine fishery in Core Sound and southern Pamlico Sound, pulling a long net

between two engine-powered vessels. The net is then "foot up" by hauling it on a shoal and wrapping the ends around a stake. The net is then gathered as tightly as possible, and a "heavier bunt net with smaller stretch mesh is drawn around the catch" (West and Wilson 1992:1). The catch is then enclosed and dipped into a "run-boat for transport to the fish house." Three or four full-time crews work this fishery out of Atlantic.

The winter-trawl flynet fishery also targets weakfish, Atlantic croaker, spot, bluefish, and butterfish are harvested offshore beginning in late November or December to about April. The Atlantic fly-net fleet is based in Beaufort. Typically, vessels target this fishery after the near shore flounder fishery plays-out. Plying the waters between Cape Lookout and Cape Hatteras, trawlers are rigged with high-profile nets used for "fish that school higher in the water column than typical groundfish." Flynets trawl ten to twelve feet off the bottom, with a two inch mesh size in the tailbag. Flynets produce the greatest quantity of scrap fish landed by the trawl fishery (Ross 1992:2,3,16,25).

The ocean gill net fishery, namely the sink net, is another method of harvesting the multi-species fishery. Sink nets are gill nets which are fished and retrieved the same day. Weakfish (a.k.a. grey trout), bluefish and Atlantic croaker dominate the sink net fishery north of Cape Lookout (Ross 1992:ii). The sink net fishery occurs from November through April. Nets are set from the beach on out to twenty to forty fathoms. The fishery occurs locally from Drum Inlet south to Cape Lookout shoals and west to Bogue Inlet.

Although shrimp, flounder and "fish" are three dominant fisheries for Atlantic watermen, many also participate in the clam, oyster, scallop and crab fisheries depending on availability. Others have participated in the Calico scallop fishery off Florida, and some will occasionally shrimp out of the South Carolina port of McClellanville.

***Marine-related Business/Industry*** Atlantic has three operating marinas. One offers a bar and grill, a boat ramp, ferry service to Core Banks, camper hookups, and cabin rentals on Core Banks. Two large fish houses and one smaller seafood business provide markets for local fishermen. The smaller one now deals solely in clams, but provides dockage at a forty slip marina for commercial and recreational boats. It also provides a small campground for seasonal visitors. The harbor in Atlantic is a Federal Harbor of Refuge which contains extensive dockage built and leased by the county to commercial fishermen. Built in the 1980's, the average rent for a medium-sized boat is about thirty dollars per month.

There are no fully outfitted marine supply stores in Atlantic. Residents must travel to Beaufort for many supplies. A general store, which was temporarily closed in the winter of 1992-93, and a local hardware store sell marine and fishing supplies. One large, family-owned net making business is located in Atlantic.

There are two marine railways. These are used for vessel hauling, painting and repair. Boat building occurs in the area, although there are no full-time boat work operations and most of the building and repairing is of the backyard and small shop type on vessels for personal use.

Despite the large number of local fishermen, no charter boats operate from Atlantic. Hunting and fishing guides are available, however.

**Tourism Services** With the exception of some part-time hunting guides and a marina, Atlantic has very few tourist services. The summer tourist traffic to and from the Cedar Island/Ocracoke ferry bypasses Atlantic altogether. Many informants are happy with this arrangement since they value the quiet, slow pace of the town. Some residents, however, favor encouraging tourism to support the local economy.

**Food Services** Atlantic has one medium-sized grocery store and one convenience store. The grocery store also serves residents of neighboring communities, since the next closest major store is in Beaufort, some thirty-five miles away. With the exception of the small bar and grill at the marina, there are no restaurants in Atlantic.

The one remaining general store in Atlantic, which had operated throughout the 20th century, "went broke" during the winter of 1992. Residents speculate that the growing success of the local grocery store/hardware store contributed to its demise, as did the general store's practice of selling on credit.

**Lodging Services** There are no motels in Atlantic. The ferry service concessioner to Core Banks operates a small campground in the village with camper hookups.

**Medical Services** There are no medical services available in the immediate Atlantic area. Private services are available through the Eastern Carteret Medical Center in Sea Level (see Section 3.6.6.5). No doctors or veterinarians practice in Atlantic. Residents must travel to Beaufort or Morehead City, unless their medical need is non-emergency and can be treated at the Sea Level Clinic. No midwives practice in Atlantic. Before World War II, however, two "granny midwives," including a nurse, assisted in child births in the area. Once the road was built to Morehead City, some women began traveling to the county hospital for delivery, although many continued the practice of home birth. When the Sea Level hospital opened in November of 1952, many chose to deliver there and the practice of midwifery declined.

**Construction** In Atlantic, woodworking is popular and many homes have a shop, but there are no contractors, homebuilders, formal plumbing, electrical, construction, or mechanical businesses based in Atlantic. Residents either call a specialist outside the community or, more commonly, call one of the several "jack-of-all-trades" in Atlantic known to be good at this or that task. Although bartering was once the norm, residents today generally pay each other for various services, although trading is far from obsolete.

**Other Business/Industry** Atlantic is home to one certified public accountant and one lawyer. Both of these professionals also have practices in the Beaufort/Morehead City area as well as in Atlantic.

### 3.6.5.3 Local Employment

Information describing the distribution of employment in Atlantic is not available through secondary sources. Most working-age male residents are involved in the fishing industry and most working-age females fulfill household duties. There are few locally available alternative occupations.

Residents of Downeast communities such as Atlantic generally have lower incomes than working persons in Beaufort and Morehead City. It is not uncommon for fishing families in Atlantic to be on a "shoe-string" budget and do without services such as health insurance. Residents are industrious and independent-minded, however, and are capable in many areas such as plumbing, carpentry, boat and auto engine repair and the like.

***Public Sector Sources of Employment*** There are a limited number of public sector jobs available in the Atlantic area. Thirteen teachers hold jobs at Atlantic Elementary School though not all of these reside in Atlantic.

When U.S. 70 was constructed to connect Atlantic to the mainland, some local residents acquired civilian jobs at Marine Corps Air Station (MCAS) Cherry Point, while others found employment at the Marine Corps Outlying Field, which occupies 1,477 acres north of Atlantic (Holland 1991:I-54). Federal employment offered security and benefits lacking in commercial fishing. In recent years, however, the availability of federal jobs has diminished. According to the Carteret County Economic Development Council (1991a), eighteen persons were employed at Cherry Point in 1991. Combined gross annual pay was \$695,370.

Informants report that job opportunities at Cherry Point have declined in the last five or so years. In fact, the Cherry Point facility has enacted a hiring freeze of civilian employees for the past four years, as part of the general trend of "scaling down" operations. Many Atlantic residents expressed anxiety that the recently proposed "cut-backs" in the military would eventually apply here. Thus, employment in the military, like commercial fishing, is perceived to have a bleak future. Military officials, however, are optimistic. Staff at the Atlantic Outlying Field predict that Cherry Point and related facilities will experience expansion due to the closing of Naval facilities in Charleston and San Diego. In "streamlining" operations, more services will likely be required of Cherry Point, thus more personnel and civilian employees will be needed. Outlying field staff cautioned, however, that such an expansion may simply bring the facility to the same level of personnel it formerly had, or new openings may simply be filled by displaced personnel from closed facilities.

***Private Sector Sources of Employment*** The optimism of the Outlying Field personnel is shared by members of Loral Aerospace Services, Incorporated, a government contractor working with the Outlying Field facility. Loral constructed a larger facility on the Outlying

Field premises. This contractor, hired to develop electronics for flight simulations and to train pilots via flight simulations, now employs fifty-two civilians, six of whom are from Atlantic, Sea Level, or Cedar Island. The manager expects Loral to increase its number of personnel in conjunction with expected expansion at the Cherry Point base and related facilities such as the Outlying Field. He added that private contractors such as Loral add greatly to the local economy because, unlike the military facility which houses its own personnel, many Loral employees may buy homes and establish themselves in Atlantic or Sea Level.

The two largest fish houses in Atlantic each employ between twelve and twenty workers in the winter months. In warmer months, this number grows substantially, and each facility employs between fifty and eighty workers by mid-summer. Each fish house employs between four and eight women who sort incoming fish, while men shovel and pack the fish. Vessel workers are not employees since the fish houses lease the vessels to the captains, who get approximately sixty percent of the value of the catch to split with his crew as he sees fit. Some captains pay the crew a straight sum per trip, while others pay crewmen a certain share. One fish house formerly paid captains and crewmen, but switched to the "leasing" system to avoid the complications of tax laws. The remaining thirty to forty percent of the catch's value goes to the vessel, as owned and operated by the fish houses. One fish house owns five vessels, ranging from about forty to seventy feet in length, and the other fish house owns seven seventy foot steel vessels. In addition to the profit made from company-owned vessels, both fish houses buy a substantial amount of seafood from independent fishermen.

Apart from the fishermen, most private sector employees travel to work in other parts of the county. The largest private sector employer in the area is Atlantic Veneer, a Beaufort-based manufacturer of tropical wood veneers.

The second largest private employer in the county is Carteret General Hospital. A few residents work in nursing homes in the county including the facility in Sea Level. Several Atlantic residents work as staff for the "Sailor's Snug Harbor," a retirement/rest home for former merchant marines and their spouses.

Major chain grocery/discount/retail stores are important sources of employment for those Atlantic residents who are willing to travel to Beaufort or Morehead City. Many Downeast residents see chain businesses as presenting both benefits and problems in that while such stores employ large numbers of people, they often force small, family-owned stores to close.

#### **3.6.5.4 Seasonal Variation in Local Economy**

Atlantic is relatively isolated and therefore does not directly experience the seasonal boom characteristic of most coastal areas in North Carolina. Atlantic resident's indirect dependence on tourism comes from the increased regional demand for seafood during the tourist season. Seafood is distributed regionally. Given varying levels of demand for seafood and seasonal availability of species, Atlantic does experience changes in economic status throughout the course of any given year.

#### **3.6.5.5 Local Economic Issues**

A current economic issue in Atlantic is the increasing difficulty commercial fishermen have in complying with new federal and state fisheries regulations. In 1992, fishermen have had to adjust gear and fishing patterns to abide by several new regulations imposed by the North Carolina Fisheries Commission, the North Carolina Division of Marine Fisheries, and the National Marine Fisheries Commission. Changing laws create a high degree of distress among fishing families of Atlantic who contend that the cost of new gear and changing regulations may eventually force them out of business. Another concern of local fishermen is that foreign seafood imports may eventually satisfy tourist season demand for seafood, thereby reducing the viability of the local industry.

The lack of variety in employment opportunities is another economic issue. Educated youth increasingly look outside the community and the county for work. This out-migration further limits the local economy. Atlantic residents often become distressed about the trend of youth departing for a more promising life.

Some residents claim that wealthy retirees and prospective second-home builders are purchasing land in Atlantic, causing property values and tax rates to rise. This situation adds to the difficulties of young persons attempting to stay in the community and raise families.

### **3.6.6 Locally-Active Governmental Institutions and Services**

#### **3.6.6.1 Governmental History**

The village of Atlantic was incorporated in 1905. The primary reason for seeking incorporation was to exact local taxes for a new school (East Carteret High School 1973). Eventually, Atlantic formed a town government with a mayor, three commissioners, and a police officer. After the new school was built, the town abandoned its incorporated status in favor of the benefits available through county government (personal communication). Today Atlantic remains an unincorporated town.



### **3.6.6.2 Federal Government**

A U.S. Post Office was established in 1880 in Atlantic. Today the Atlantic post office employs one full-time postmaster, one part-time clerk and one mail carrier. It has 360 active boxes, including both post office boxes and rural route boxes.

The Marine Corps Outlying Field lies just north of Atlantic and is used primarily as a landing facility for helicopters. It is also available for emergency landing for planes participating in exercises at the nearby Piney Island bombing range or the Pamlico Sound bombing ranges known as BT-9 and BT-11. The military also has an arrangement with federal drug enforcers whereby drug enforcement aircraft may use the runways if needed. The facility is barren, save for the headquarters/barracks building, storage areas for captured Iraqi tanks, buckled, cracked, and grassy runways and large radar-simulator apparatus. The facility is staffed by two persons who commute from New Bern and Havelock on Monday morning and stay until Friday. Six marines bunk at the facility, and work at the nearby Piney Island bombing range. The facility is capable of supporting up to forty men.

The facility is designated a secondary refuge point in the event of an emergency (Atlantic school is the primary refuge point). After the county's fierce March storm of 1993 in which most were left without power for days, some Atlantic residents came to the outlying field for water.

While just these two federally-operated facilities are actually located in Atlantic, the federal government is critical to the life of the town. The community has historic association with MCAS Cherry Point and Camp Lejeune, a fact which underlies the loyalty to the armed forces expressed by some informants. Yet there also exists ambivalence toward military activities in the region. Residents complain about low altitude test flights and associated noise, periods of bombing practice that forces large portions of the sound to be closed to fishing, and occasional appropriation of land for military use.

Atlantic residents often note that they are surrounded by the federal government. The National Park Service (NPS) acquired nearby Portsmouth Island and Core Banks in the late 1960's to establish the Cape Lookout National Seashore. Residents report that the federal government began limiting many of the activities that local residents had enjoyed for years in these areas. The NPS demolished some fifty cabins on Core Banks that had been built without proper title, and asked locals to remove livestock that had grazed on the islands for many years. This angered Atlantic residents, some of whom were born on Portsmouth Island. Informants note that many residents continue to chafe under restrictions imposed by the NPS, such as those protecting bird nesting grounds on Core Banks.

The U.S. Fish and Wildlife Service (USFWS) manages the 12,500-acre Cedar Island National Wildlife Refuge bordering Atlantic. USFWS management strategies, such as those involving the Red Wolf, can affect Atlantic residents.

The National Marine Fisheries Service (NMFS) makes policy decisions that affect Atlantic fishermen. For instance, NMFS recently instituted requirements for estuarine shrimpers to install turtle excluder devices (TEDS) on their trawls by January 1993. This issue is discussed in more detail in the social and cultural issues section (please refer to subsection 3.6.8.4 for more detailed discussion of this and related issues).

### **3.6.6.3 State Government**

The North Carolina Department of Health and Natural Resources Coastal Management Office is active in Atlantic. This facility is charged with issuing CAMA permits and citing those in violation of illegal construction. Coastal Management Office personnel regularly fly along coastal areas in search of new docks, bulkheads and so on, which were not built with CAMA approval. Atlantic, like all other communities from Marshallberg east, is particularly impacted by CAMA regulations, as it is bordered by waters classified as ORW or Outstanding Resource Waters. Thus, the zone requiring CAMA permits is from the waterline to 575 feet inland, as opposed to the non-ORW areas that require CAMA permits from zero to seventy-five feet from the water.

Activities of two other divisions of the Department of Health and Natural Resources also directly impact the town of Atlantic. The Department of Shellfish Sanitation regularly monitors the area's shellfish beds to discern the need to close particular areas to commercial harvest because of high bacteria levels. It is common for large areas to close after abundant rainfall, since freshwater runoff causes bacteria levels to rise. The North Carolina Division of Marine Fisheries regulates all marine fisheries occurring in State sounds and coastal waters, or zero to three miles offshore. Since the majority of Atlantic watermen harvest fisheries within this zone, their activities are closely tied to the policies of this state agency. Although the relationship between the Division and fishermen fluctuates, there is more familiarity and more dialogue between fishermen and this agency than fishermen and agencies such as the National Marine Fisheries Service or the inter-state regional management councils.

### **3.6.6.4 County Government**

Although Carteret County provides virtually all government services, there are no county government offices in Atlantic. Beaufort, about a half-hour drive from Atlantic, is the county seat and houses most county agencies. Atlantic is under the jurisdiction of the Carteret County Board of County Commissioners and is served by numerous county institutions.

**Law Enforcement** Law enforcement and public safety services are provided by the Carteret County Sheriff's Department, which is based in Beaufort. The Sheriff's Department reports minimal law enforcement problems in Atlantic.

Three patrolmen from the county Sheriff's Department are assigned to patrol the "east run" area of Carteret County per day, which includes Atlantic. The "east run" covers the unincorporated areas of Beaufort Township, the North River/Merrimon area, and Downeast from Bettie to Cedar Island.

**Fire Prevention and Suppression** The Atlantic Volunteer Fire Department is staffed by twenty volunteers. The department averages one call per month. The department has four fire trucks, one brush truck and one water tanker.

The fire department is an important part of Atlantic's social life. The department periodically sponsors "pig pickins," fundraisers, and participates in parades and other events. The fire department has volunteered to cook for the first annual "Blessing of the Fleet" ceremony to be held by the women's fisheries auxiliary in the spring of 1993.

The Atlantic Volunteer Fire Department is part of the Carteret County Emergency Management Plan. Volunteers usually receive initial training at Carteret Community College and participate in in-station training about twice a month. Staff are required to receive training in "Fire Fighter One" (a state certification) and have the option of ascending to levels Two and Three. Special training sessions that are required include hazardous materials training for "awareness" level, which the trainee learns to identify hazardous materials. Training in the "operational" level, whereby one operates defensively and comes into contact with hazardous materials, is optional. The level of hazardous material technician requires about 200 hours of a chemistry class; local fire fighters typically forego that level of training and call the Cherry Point or Camp Lejeune fire department in the event of a serious hazardous material problem.

**Emergency Medical Services** The Sea Level Rescue Squad provides ambulance service to residents of Atlantic. The squad has one rescue boat for response to offshore accidents. All emergency cases are transported to Carteret General Hospital in Morehead City.

Atlantic residents needing minor medical attention travel to the Eastern Carteret Medical Center in Sea Level. As a subsidiary of Carteret General Hospital, the clinic handles minor emergencies, physicals, and diabetic counseling. The medical center also houses an extended care facility with nursing home and rest home care available (Nance and Greene 1992:453). The forty-five bed facility will soon be expanded. The center does not operate on weekends or after-hours and Atlantic residents must travel to Morehead City for extensive or after-hours care. Most physicians in the area, including obstetricians, also operate out of Morehead City.

The medical center was preceded by Sea Level Hospital, an acute care facility with emergency rooms. Until a decade ago, babies were delivered regularly at this facility that was owned and funded by Duke University Medical Center, in Durham. A lack of funding and a relatively low rate of usage forced the facility to close. The closing of the hospital concerns many Sea Level and Atlantic residents, particularly the elderly, who worry about the forty-five minute to an hour drive to Carteret General Hospital in Morehead City.

In emergency situations, patients are transported to Morehead City by the Sea Level Rescue Squad, a volunteer organization that operates without trained paramedics. The Sea Level squad is comprised of twenty-five to thirty active volunteers, most of whom have "EMT" (Emergency Medical Technician) training. Some staff have only ambulance attendee training. EMT training requires a 142-hour course at Carteret Community College. The squad has two ambulances, one twenty-five foot "skimmer" rescue boat and a forty foot rescue boat for search and rescue operations.

**Public Works** State roads in Atlantic are maintained by the Department of Transportation. There is no trash pick-up service. Churches undertake some of the town beautification tasks. The local Baptist church, for example, supplies the annual Christmas decorations that line the main road.

**Education** The first high school in the county was established in Atlantic in the nineteenth century. Preparatory schools have also been based in the town (Hill n.d.). Today, Atlantic has one school, Atlantic Elementary School (Kindergarten through grade eight), which provides educational services to children in Atlantic, Sea Level, Cedar Island and Stacy. The school employs thirteen full-time teachers and had an enrollment of 181 students in the 1992/1993 school year. Enrollment in 1989 was 162 students. The 1984 enrollment was 257 students. A recent proposal to move Atlantic's middle school students to a school in Smyrna has met with considerable opposition.

**Social Services** The Carteret County Department of Social Services is the sole provider of aid in the county, administering federal, state and county programs. Sixty-eight percent of the Department's funding is federal, twenty-two percent is state, and ten percent is county (Carteret County Department of Social Services 1990). Atlantic residents may receive assistance or participate in social service programs offered by the county. Department administrators note that most aid users reside in Beaufort and Morehead City, but a recent increase in social service usage is evident among commercial fishing families in more rural parts of the county.

Although there is no senior center in Atlantic, the Carteret County Senior Center provides transportation for seniors to and from the center in Morehead City. About six elderly females from Atlantic are brought to Morehead City twice a month for doctor's appointments, banking, grocery shopping and other errands. The use of senior center services by Atlantic residents is lower than might be expected, largely because of strong family ties in the community and the support provided the elderly by family members.

***Cultural and Recreational Services*** There is a small library in the Atlantic Elementary School and the Carteret County Public Library in Beaufort sends its bookmobile to Atlantic once a month. While Atlantic has no formally designated community center, the elementary school functions as one. The center has basketball, football and baseball facilities. The school also hosts plays, student art shows and musical productions. Public meetings are also held at the school.

Apart from the community center, the closest public recreational facility is "Mariner's Park," located in neighboring Sea Level. Mariner's Park is operated by Carteret County Parks and Recreation Department. The park is used for softball tournaments, tennis, football and summer day camp.

Nearby Core Banks, part of the Cape Lookout National Seashore, is the traditional recreation area for Atlantic families. Popular activities include clamming, boating, sunbathing and picnicking. Use-restrictions imposed by the National Park Service are unpopular with villagers. Residents especially resent the closing of nesting areas to human use, contending that they themselves are capable of identifying and avoiding nests. Core Banks is also popular among sportsmen from outside of the community. Duck hunters and surf fishermen use the private ferry from Atlantic to access Portsmouth Island. Heaviest use occurs in the fall months when fishing and hunting is best. .

#### 3.6.6.5 Community Government

Atlantic is unincorporated and therefore has few formal or informal community government institutions. The volunteer fire station, the post office (a federal facility) and the Atlantic Elementary School (a County district facility) are the only public service facilities in Atlantic today.

#### 3.6.6.6 Local Government Issues

Many Atlantic residents perceive a lack of attention to Downeast residents by county decision-makers. Some community members feel that Atlantic does not enjoy the benefits that the wealthier communities of Beaufort, Morehead City and Atlantic Beach receive. Many residents say that Downeast residents are ignored because they are mostly "poor fishermen," with little political clout, who reside in a wetland area that cannot be developed to any great extent. On the other hand, the dramatic seasonal fluctuation in population in the beach communities presents a challenge to its demands.

Residents of Atlantic appear to not want the "red tape" and taxes that would come with incorporating their town and they are proud of the level and quality of town facilities that they do have. Although not satisfied with the attention the county gives to Downeast

communities, Atlantic's dissatisfaction is not so great as to support incorporation. There is very much a "last frontier" mentality whereby people value their relative independence from a bureaucracy, both at the county and community level. On the other hand, residents are aware that they need more clout in light of the encroachment of outside interests.

Differences in perspective between the Downeast region of the county and the more developed areas to the southwest erupted during a heated public hearing in 1991 over a proposal by populous Atlantic Beach to pump treated waste water to Open Grounds Farm, a 44,000-acre agribusiness located Downeast in an area of ecologically sensitive wetlands, rivers and estuaries. Local residents were generally disgruntled that the county would allow an action perceived to threaten local fisheries nursery areas. An "east versus west" polarity arose in relation to the issue. One person threatened to circulate a petition calling for the Downeast area to secede from the county.

### **3.6.7 Physical Infrastructure and Land Use**

#### **3.6.7.1 Infrastructure History**

Atlantic was not accessible by land to Morehead City or Beaufort until a paved road was built in the 1930's (Nance and Greene 1992:59). Residents reportedly sailed to Beaufort every Saturday to pick up supplies and enjoy family entertainment. After the road was completed and MCAS Cherry Point in Havelock was constructed during World War II, a number of Atlantic residents began commuting to the base as civilian employees.

The original highway, connecting Downeast communities to Beaufort and beyond, passed through Atlantic. This brought travelers from points north and south through downtown Atlantic. U.S. Highway 70 still terminates in Atlantic, but traffic from the Ocracoke-Cedar Island Ferry has been re-routed west of Atlantic and Sea Level via State Route 12, a situation that puts Atlantic off the beaten track in terms of traffic, tourism and associated business.

Atlantic has easy water access to Drum Inlet, the only inlet between Ocracoke Inlet to the north and Barden's Inlet at Cape Lookout to the south. In 1971, the U.S. Army Corps of Engineers dynamited a section of Core Banks directly across from Atlantic to provide passage for fishing trawlers. "New Drum Inlet" widened to 4,000-foot opening, but became too shallow for most boats to pass (Schoenbaum 1982:201-202). Most fishermen now favor dredging and stabilizing the inlet with jetties, claiming this would not only provide better ocean access for boats but would also "flush out" Core Sound with fresh tidal waters to restore the oyster fishery.

### 3.6.7.2 Physical Infrastructure and Related Issues

**Marine Facilities** Fishermen and boaters in Atlantic use either their own docking facilities or privately-owned commercial marina facilities. There are no state-maintained boat ramps or other marine facilities in the community. The North Carolina Department of Transportation operates the Cedar Island-Ocracoke ferry in neighboring Cedar Island. The United States Coast Guard has a base at Fort Macon in Atlantic Beach and conducts search and rescue operations in the waters around Atlantic when the need arises.

**Transportation System** U.S. Highway 70 is the only land route to Atlantic. The 1991 Land Use Plan listed "limited ground transportation access" as one of the obstacles to development in Atlantic (Holland 1991:I-55). Road quality is good, however, and traffic problems are minimal. The average daily traffic volume passing through Atlantic on U.S. 70 in 1987 was listed as 2,000. This compares to a count of 33,408 vehicles passing through Morehead City and 12,800 passing through Beaufort on the same highway (Holland 1991:map 12). There is no commercial or public airport in Atlantic, and no bus transportation.

Small boats with shallow draft can access the Atlantic Ocean through Drum Inlet. Access to shoreline locations within Core and Pamlico Sound is also relatively easy for shallow-drafted vessels. The larger vessels of Atlantic, from about thirty-five to forty-five feet in length, periodically traverse nearshore waters for the harvest of shrimp, flounder, or other species of finfish. Vessels most frequently exit Core Sound via Ocracoke Inlet rather than Beaufort Inlet, as the route is shorter and has less shoals around which to maneuver. Vessels en route to South Carolina or Georgia travel via the Intracoastal Waterway, and typically seek passage through Beaufort Inlet.

**Water and Sewer System** Atlantic, like most unincorporated towns in Carteret County, depends on individual septic tanks for waste water disposal. Non-biodegradable solids are pumped from septic tanks and transported to land disposal sites approved by the North Carolina Division of Health Services (Holland 1991:I-98).

Atlantic has no central water system. Residents use individual wells. The 1991 Land Use Plan lists the lack of central sewer/water systems as a primary obstacle to community growth (Holland 1991:I-55).

**Solid Waste Disposal** Residents of Atlantic township have no municipal solid waste collection or disposal service. They either contract private waste disposal firms or transport refuse to county-operated "green boxes," where it is periodically picked up by truck and transported to the county-owned and maintained landfill. The landfill, located in Newport Township on Hibb's road, is the single disposal site for all domestic and commercial waste in the county. The landfill is currently adequate for the county's solid waste, and shows no evidence of groundwater contamination. The county is working with Pamlico and Craven Counties, however, in designing a new landfill to serve the tri-county area (Holland 1991:I-104).

**Energy** Atlantic receives electric power from Carteret Craven Electric Membership Corporation and Carolina Power and Light. Natural gas is not available. Fuel oil, coal and LP (liquid propane) gas are available through private companies and distributors.

**Communications** Carolina Telephone, a Sprint company, provides local and long distance service to Atlantic customers. A county newspaper is published three times a week, and is one of the ways local information is communicated throughout Atlantic. There is one locally broadcasted talk radio station, and one top-40 music station. A county-based cable station broadcasts local commercials and public service announcements.

**Infrastructure Issues** One public sector issue in Atlantic involves the inaccessibility of Drum Inlet to large fishing vessels. Since a deep water entry to the ocean would simplify logistics for Atlantic fishermen, most strongly favor dredging and stabilizing the inlet.

Another public sector facilities issue in Atlantic and surrounding communities involves sewage treatment. Most residents derive their livelihood from the abundant estuaries in Core and Pamlico Sounds and are concerned that county sewer problems could affect its productivity. Although a central sewage system has been proposed as a solution to regional sewage problems, many Atlantic residents are ambivalent about switching from septic tanks to a central system. These residents fear that a central system could contribute to massive development Downeast and a major change to their rural lifeways.

One issue concerns the attempts of an aquaculturalist to lease an area of Core Sound for raising clams. Many residents resent the idea that an individual can monopolize, for profit, what they perceive as a common resource. They fear that since the aquaculturalist participates in research projects with the state, a lease to develop a clam farm will be granted.

### **3.6.7.3 Land Use Patterns and Related Issues**

**Land Ownership** Most of the land surrounding the community of Atlantic is owned by the federal government. The NPS administers the Cape Lookout National Seashore east of Atlantic. The USFWS controls the 12,500-acre Cedar Island National Wildlife Refuge north of Atlantic. MCAS Cherry Point operates the 1,477 acre airfield north of Atlantic.

**Zoning and Land Use** Seven major CAMA permits have been issued in the Atlantic since 1984. Six of these permits were issued for the area in Atlantic along the Core Sound shoreline (Holland 1991:I-55). From Marshallberg to Cedar Island, coastal waters are classified as "ORW" or Outstanding Resource Waters. In such areas, the zone requiring CAMA permits increases from 75 feet of the water to 575 feet of the water. Therefore, in ORW bordered towns such as Atlantic, construction projects which are relatively far from the shoreline require CAMA permits. In recent years, CAMA permits have been issued for the construction of two new clam aquaculture facilities, a new clam house, repairs on a major fish house that partially burned down, some new houses, and new docking facilities.



***Hazard Areas*** Atlantic lies just above sea level and the entire area is subject to storm flooding. Other hazards include the fuel docks and refrigeration facilities at the marinas. Hazard areas in or near Atlantic would include the MCAS Cherry Point Outlying Field, the Piney Island bombing range, the two Pamlico Sound bombing sites, a spoil area in Core Sound, pilings in Core Sound, numerous shoals, and a wreck between Atlantic and Cedar Island in Core Sound.

***Visual Considerations*** There are currently no man-made visual obstacles to Core Banks, Core Sound, or the area's acres of marshland and wetlands. The Marine Corps airfield is not visible from the main population center in Atlantic.

***Land Use Issues*** The 1991 Land Use plan describes obstacles to development in Atlantic. These include: the prevalence of wetlands, the very low elevation of the community and its susceptibility to storm flooding, the lack of central water and sewer systems, limited ground transportation access, and conflicting land usage resulting from the use of the Marine Corps airfield (Holland 1991:I-55).

The overriding land use issue in Atlantic is the sense of a growing infringement and appropriation of land and water by the federal government. Since World War II, a considerable amount of land near Atlantic has come under the control of federal agencies, including FWS, NPS, NMFS and the USMC. Many residents resent having their use of these areas controlled or restricted.

### 3.6.8 Social and Cultural Characteristics

#### 3.6.8.1 Sociocultural Aspects of the Community

***Physical Appearance*** The village of Atlantic is wrapped around the harbor. Most of the houses and businesses are on the south side of the harbor, but several homes are on the north side, as is some new house construction. The physical and symbolic heart of Atlantic is the harbor, where over one hundred white fishing boats are docked, many proudly flying the blue commercial fishing flag.

Atlantic contains a diverse array of old white homes with front porches, ranch homes of brick with carports, and mobile homes. Atlantic streets are shady, bordered in large oak trees and myrtle bushes. The majority of Atlantic homes are set back off the waterfront road; although some houses are located on the waterfront, this area is largely reserved for fish houses, docks, stores and churches. House lots, located on a confusing tangle of dirt and paved roads, tend to be relatively small, or contain more than one house (or a trailer or two). Houses face every which way, and it is not uncommon to see a stately two story estate next to a mobile home surrounded by junk cars, old nets and fish boxes. Businesses are found next to private residences; along the waterfront fish houses, churches, stores and

private homes are inter-mixed. The most uniform area is "the harbor", where hundreds of white commercial fishing boats rest side by side. Most houses in Atlantic have a small garden plot in the yard; it is also common to see commercial fishing nets strung across yards for mending. Some residents keep horses, sheep, or goats. Very little large scale farming is done in this community.

Several of the yards in town hold prolific gardens of potatoes, squash, collards, tomatoes, onions, turnips, radishes, corn, cabbage and broccoli. Plants grow surprising well in a sandy topsoil. Gardens, like houses, seem placed every which way, forming a patchwork quilt of color and shape. Yards may also hold an assortment of lawn furniture, tire swings, fishing gear, car parts, or "lawn art" -- plywood cutouts of a boy and girl on a swing, or of a woman bending over gardening. Some houses have a blue ribbon decorating their front gate or a satellite dish in the front yard.

The outer periphery of Atlantic is marshland and scrub forest to the north, west, and south, and calm sound waters to the east. Visible from the shore is Core Banks, a white sandy strip appearing at the edge of the sound. Although Atlantic residents are surrounded by such natural features, rather than the freedom one might associate with uninhabited areas, they feel surrounded by the federal government. Much of the land and some water areas are owned by the military, and the nearby Cedar Island wildlife refuge is run by the National Park Service. Nonetheless, Atlantic residents look out over the sound and marshland, and are given to declaring it "God's Country."

*Living in Atlantic* The history of Atlantic as an independent, tight-knit fishing village has made the community what it is today. Long-time residents by and large are a versatile group which partake in a variety of subsistence/economic activities, mainly centered around commercial fishing. Even non-commercial fishermen in the community are known to clam, oyster, or fish in their spare time, some choosing a late afternoon-evening shift in order to "mess about" in the water each morning. Many of the women working in fish houses, nursing homes, or local stores do so to supplement the variable income of commercial fishing. It is generally understood that Atlantic fishermen are born and bred to live off the water, and much effort and sacrifice is undertaken to maintain this style of living, even in inauspicious times.

This idea that men are "born" to the water is most commonly expressed in the term "fishing is in my blood" (Garrity-Blake, in press). It reflects a belief that watermen abilities, such as finding fish, working the currents and tides, and navigation, are in part learned through experience but are also inherent in one's being. Members with a long family history of working off the water are born with a certain inclination for living from the sea. This belief bears on the growing despondency among fishermen regarding the bleak future of commercial fishing: "If one is a born and bred waterman, what else can one do if the ocean's taken away?" Fishermen who so strongly identify with their work experience much distress at the thought of losing their occupation for in that, they are losing their identity.

The idea that "fishing is in your blood" also has bearing on the anger watermen often feel when their domain is seemingly appropriated by those in the scientific community, the policymaking community and the recreational community. Fishermen resent that fisheries scientists -- "fish doctors" they say -- disregard the knowledge of those born and bred on the water:

Why don't they ask us why them crabs is got ulcers on their backs. . . I could take 'em out on m'boat and show 'em what's a going on . . . them flounders runs in cycles. . . got scarce three times in my lifetime, a few times in daddy's lifetime, and granddaddy'll tell you too.

This is an example of what one might hear from Atlantic and other Downeast fishermen. When confronted by scientific data at hearings justifying this or that regulation, fishermen may as well be confronted by a foreign language; they shake their heads at the "nonsense" and "mumbo-jumbo" coming out of "Nut Island" (Piver's Island, home of Duke and NMFS research laboratory).

Fishermen feel that policymakers disregard their knowledge and concerns, choosing instead to cow-tow to "big money" and "sports fishermen who are just trying to run us off like they did the Indians." Their most intense anger is leveled at recreational fishermen, whom watermen think are "greedy, and they want the whole damn ocean to their self."

Some local fishermen live by the ethic that resources are valuable if there is a use for those resources; sea turtles were valuable when people ate them, but they're "useless" now. Some locals feel that sport fishermen "like to play with fish" instead of making a living from fish. For many watermen, this is a sign of social decay and the decline of America: "When they turn a working man into a criminal so's he's out the way of rich folks who want to play, the whole damn country's going to hell." Sportsmen are generally perceived to be wealthy "Yankees" who "don't want to even see us around" (Garrity-Blake, in press).

Many of the newly-arrived Atlantic residents pick up on this anti-foreigner sentiment; the village is often described as "clannish," and those non-natives who manage to break through the wall of "standoffishness" are proud of this feat. One of the non-native residents conceded that some newcomers are not made to feel welcome, especially those who make little attempt to understand local ways of life and ways of thinking:

They think I'm strange, but I'm a good kind of strange . . . I mind my own business and don't try to change the way things are here.

The pastimes of Atlantic natives are usually related to the out-of-doors; families enjoy "going to the banks" for a weekend of clamming and cooking out. Hunting is popular among the men. It is common to see stuffed game trophies in Atlantic homes. Deer meat is

seen as a delicacy and freezers are stocked with venison for stews, roasting, or for making jerky. Decoy carving and painting is another popular pastime for men and several prize-winning carvers practice their hobby in Atlantic. Many women enjoy gardening, canning, visiting and church activities.

Children partake in activities such as trampolining, All Terrain Vehicle driving, swimming and target practice with B.B. guns. There is a paucity of activity for teenagers, except perhaps for basketball, boating and fishing. For "night life," the activities at the school suffice, as plays, basketball, and so on are popular.

Most Atlantic residents are fiercely proud of their town, and insist there is no greater a place on the face of the earth. This is not to say Atlantic residents are not well travelled; men especially have been from New England to Florida on various fishing trips and still declare Atlantic to be the "only place to live." Some long-time residents, however, expressed the burden of living in a town "where everybody knows your business and who your daddy is and what you had for supper last night."

For non-native residents, Atlantic is a place of quiet and solitude. Lacking the kin-ties and history of natives, non-natives do not derive the same significance from the town as old-name families. However, some non-locals appreciate the town for that very quality, where "everyone minds their own business and they leave you alone." Other locals expressed being uncomfortable at the "cool reception" they received, commenting that "you have to live here for years before you're rewarded with a wave." A preacher joked that if a native remotely knows you, he'll lift one finger off the steering wheel as he passes you by. If he's fairly acquainted with you, he'll lift two or three fingers, "and if he knows you real well he waves like a crazy man." A stranger in town feels all eyes upon him, especially if he ventures down to the harbor where clusters of residents gather and pass the time away.

For the majority of Atlantic residents, to live in Atlantic is to feel a strong sense of community, especially if your children attend Atlantic school. There is a good amount of self-sufficiency in Atlantic, as one may go many weeks without having to drive to town. Gardens in the summer, canned vegetables in the winter, locally-caught fish and shrimp, and the local grocery stores provide most food needs. If someone falls ill, it is likely mentioned in the Atlantic gossip column of the county paper. That person can expect to be the subject of prayers come Sunday, and may receive gifts of food. The children receive a strong sense of community, if not a sense of "us against them," at school with sports events. Little League and basketball take the children to Harkers Island, Smyrna, or other such locations for games. The intra-school competitiveness is strong and carries over to the communities in general. One woman brought her child to the Harkers Island Decoy Festival and bought her a sweatshirt bearing the logo.

The churches also contribute to the sense of community, not only in organizing community activities such as the Christmas parade, but in supplying needy residents with money, food and clothing. It is said "nobody goes hungry in Atlantic." The churches inspire both

community unity and factioning; unity in that there is a great effort for the churches to share activities or special services, and bring the different denominations together. Factioning in that the community is somewhat divided along church lines. Residents often identify each other in terms of what church they attend, or in terms of whether a person is a church-goer or not.

Residents "pull together" in the event of sickness, death, or storms and it is customary to bring food to those under the weather or who have lost a loved one. The churches regularly help families in need with clothes, food and money for electric bills. Although the bartering system has declined in recent history, a strong sense of reciprocity lives on -- the unspoken understanding that if someone helps you, you will return the favor when called upon. Although seemingly ideal, such systems of reciprocity can be tyrannical to participants. Fishermen express this sentiment when discussing the strong control the fish dealers have in the community. A dealer may lend money to "down and out" watermen in need of engine repairs. The fishermen then feels obligated to sell his catch to that dealer.

***Environmental Values and Perceived Threats*** There are various views of the environment in Atlantic. Non-natives who retire to the area or that spend summers in second homes tend to hold the view that nature is to be protected from the destructive activities of people. This is why some move to the area: "We like the unspoiled beauty of this place." They tend to feel that natives contribute to the decline of the nature beauty: "They just throw their trash right out the window on the side of the road. . . People just drop their old boat engines in the water to lay there and rust forever." These residents tend to care about popular conservation issues such as the saving of whales, sea turtles, baby seals, and so on. The potential extinction of a species is viewed as a harbinger of ecological catastrophe and must be headed off at all costs.

Although they might appreciate the charm of commercial fishing boats, there is some ambivalence toward the activities of fishermen: "The trouble is, they'll catch every last fish or clam if they can get away with it." Other non-locals are sympathetic with fishermen and see no conflict between their support for the harvesting of waters and their views of conservation. The native view of nature, especially among the older residents or the younger residents who have taken up a commercial fishing lifestyle, is that man is part of nature and, like the rest of the animal kingdom, must hunt and consume other species to live. Harvesting fish is seen as a morally sound if not a godly occupation. It is not uncommon for fishermen to refer to Jesus' disciples in order to justify or show support for their livelihoods:

'Fishing is one of the oldest ways to make a living. Jesus' disciples was fishermen. Because fishermen were hard working and honest.' Their fishing environment is not only revered as 'mother nature,' but as God's creation; their work is in deference to the power and awesomeness of God and the natural world (Garrity-Blake, in press).

Natives tend not to look at conservation as all-out protection of this or that specie. Rather, they believe species should be protected insofar as to render that specie prolific and useful to people as a consumable good. Animals such as fish and turtles are valued not for their own sake but for their use as food. A valuable specie is one that is of use to people. Therefore many native residents have difficulty understanding the current movement to save turtles.

What earthly good is a turtle? We can't eat 'em. Use to, but can't eat 'em anymore. So why this outcry to save the turtles? They're valuing the life of a useless species over human beings. What's wrong with this world?

Some fishermen expressed the idea that it was against God's will to protect turtles at the expense of people; that man has dominion over animals as stated in the Bible. Repeatedly fishermen would wonder what the fuss was about when it came to an animal's extinction: "All things become extinct sooner or later, it's the natural course of life. If turtles become extinct, what difference will it make?"

Fishermen and other Atlantic natives view the greatest threat to the environment to be overdevelopment from areas to west. This is perceived to lead to declining water quality that affects all coastal residents.

We got something unique here. We got pretty clean waters compared to other places like New Jersey or Florida. So everyone wants to move to this county and we get more and more development and condominiums and people and runoff. I'm affected by the crowd to Bogue Banks. I'm affected by Weyerhauser and Texasgulf. Everything just a runs down our way and poisons our waters. And then fishermen get the blame and they restrict the hell out of us.

***Major Changes of the Last Decade*** One of the greatest changes in the last decade has been a decline in opportunity for commercial fishermen. This livelihood has suffered because of a number of reasons, including coastal development, increasing restrictions, declining stocks and over-capitalization of some fisheries. For Atlantic, this has meant a general decline in the quality of life for some residents, the increased migration of young to distant places for education and employment, a sense of alienation for fishermen who see few decently paying alternatives, and perhaps an identity crisis for some who are increasingly viewed as the "bad guys" in the public eye (Garrity-Blake, in press).

Another major change has been the continued improvement of roads and bridges to Beaufort/Morehead that makes these towns more easily accessible. However much Atlantic residents like to brag that they rarely have to leave their village, there seems to be a good amount of daily or weekly travel to points west for shopping, doctor visits, or entertainment.

The availability of cable television to Atlantic also has had far-reaching effects, as people can find entertainment and even shop from their own homes with the choice of dozens of channels. Like television in general, cable television discourages social gatherings.

The reduction of Atlantic school from a K through high school to a K through middle school has contributed to the changing shape of the community. Atlantic teens are now exposed to peers from other communities and inevitably take in influences from beyond the borders of their own town. Older residents reported a sense of uneasiness at this change, as parents became less in control of their teens' school and extra-school activities. Parents also expressed distress that their children would be more likely to fall through the cracks both academically and athletically in the larger high school.

The most recent physical change experienced by Atlantic is the closing of Old Drum Inlet by a storm that hit in the 1970's. Since that time vessels seeking ocean access must go north to Ocracoke Inlet or south to Beaufort Inlet. The larger vessels have simply been docked in Beaufort. Some sound fishermen attribute the decline in certain shell fisheries to the lack of "fresh sea water" which is needed to "flush out" the sound. There is a general feeling that the dredging and stabilizing of Drum Inlet would help inshore fishermen for this reason, as well as make for easy ocean passage.

***Population Flux and Factions*** In contrast to virtually every other town in Carteret County, Atlantic has experienced a small but steady decrease in population since the 1960's. Probably the biggest factor contributing to this phenomenon is the need for young residents to leave the community in search of employment, although this move has been partly offset by a small but steady number of incoming retirees or second home owners.

Some factionalism occurs among traditional commercial fishermen and residents who venture into non-traditional harvesting methods such as clam aquaculture. Clam aquaculture involves leasing the bottom. Traditional fishermen feel that the bottom area is being unfairly appropriated and that the market is monopolized and possibly flooded by those who grow clams. Factionalism also occurs between non-natives who are perceived to "want to change things" and natives. This was noted recently in relation to a proposed change to the Atlantic school in which the middle school grades would be closed and students would be bussed to a different Downeast community. According to native informants, the only people attending the public hearing who supported this proposal were "foreigners from California who moved here and want to change it like their home state was."

***Socioeconomic Status*** As homogeneous as the fishing village of Atlantic may appear, there is some social stratification. The wealthier members of the community are successful fish dealers and their families, business owners, and well-to-do outsiders who purchased property for a retiree or second home. Most wealthier residents who attend church, attend the Methodist or Baptist church. Most residents are relatively successful fishermen, or work elsewhere such as in health care or at Cherry Point. They are small house or trailer owners, boat owners, and are likely to attend the Baptist, Methodist, or less likely, the Holiness

Church. Poorer class residents are typically younger, sometimes recently married natives who are finding it difficult to make ends meet in commercial fishing. Some live with parents, others in small trailers or cabin-type homes. The small congregation of the Atlantic Holiness Church is reported to be comprised of relatively poor people. What cross-cuts class differences in Atlantic is ethnicity. Virtually all residents are white. There is also little or no housing segregation and large stately homes are built next to small cabins or trailers. Cultural/historical identity is also an integrating factor. Wealthy and poor natives likely assign more importance to kinship than say, wealthy natives and wealthy incoming residents.

***Seasonal Differences*** Tourism is not a mainstay of the Atlantic community, nor is the town transformed during the warmer months as is the heavily visited tourist towns of Beaufort and Atlantic Beach. The greatest social change from summer to winter is that the men in commercial fishing families are home for longer amounts of time during the winter, whereas they are absent almost every night in warmer months and sleep during the daylight hours. The consequence of this is that wives are by and large in charge of family business, including finances, home repair, their children's sports and school activities and church activities.

***Local Fish Harvesters*** Local fishermen range from family men who are clean-cut and church-going to non-settled men who are often down-and-out and may have a proclivity to drowning their sorrows. Many fishermen own substantial fishing trawlers but few can afford to hire a crew. Others own small skiffs or nothing, and hire on with local or out-of-town captains on larger trawlers. It could be said that fishermen "speak the same language." Native watermen slip into a fast-paced brogue when talking with one another, using colloquialisms like "dead slick cam" for calm waters and "mommicked" for difficulty. Fishermen tend to share a distrust for strangers, particularly those carrying a clipboard or brief case.

When not fishing, Atlantic fishermen are most often found "to the harbor messing with the boat." That is, they mend nets, repair equipment, clean woodwork, or generally collect around their pickup trucks, chatting and speculating about the weather with fellow fishermen. There is just one bar and grill in Atlantic, which does not seem to be heavily frequented by fishermen. Married fishermen are more likely to spend weekends at home with their families; younger, unmarried fishermen might venture as far as Atlantic Beach for nighttime entertainment on weekends. A local nightclub in nearby Smyrna is another popular hangout.

Some wives of fishermen accompany their husbands on fishing trips for safety sake and to defray the cost of having to hire a mate. But unless they are childless or have relatives to stay with their children from dusk to dawn, wives stay with the children while their husbands fish. Although men are most often seen at the harbor passing the time away when not fishing, women sometimes accompany their husbands to assist in cleaning up the boat or repairing nets. In their spare time, women enjoy visiting family members and friends, gardening, canning, or going to town for a shopping excursion.



The defining feature of Atlantic commercial fishermen, and commercial fishermen from surrounding areas as well, is their self image as being independent. This sense of independence has worked against them when they have responded to regulations and interest group pressure. Commercial fishermen have not adequately anticipated nor dealt with the increasing encroachment of the sportsfishing industry and general tourism. Particularly in fishing communities like Atlantic, which are "off the beaten track" and not routinely exposed to the trappings of a recreation-oriented economy, there is a pervasive "leave me alone and mind your own business" attitude in regard to outsider influences.

Fishermen well realize their own independence has worked against them, and often contrast themselves to the "sportsfishermen who have banded together and have big-money behind them." There is a pervasive belief that "fishermen will not band together." Although there is much truth in this belief, it is somewhat belied by the fishermen's organizations which have had considerable clout in the past. The Carteret County Watermen's Association was well organized and raised impressive amounts of money, but was suspended in 1992 because of the growing apathy and inactivity of its members. Yet the local chapter of the North Carolina Fisheries Association Auxiliary, organized in 1992 by the wives of commercial fishermen, has enjoyed growing membership and interest among the wider community of fishermen. This is likely because the auxiliary provides a forum for dialogue between watermen and fisheries policymakers, who are often guest speakers. The largest commercial fishing trade group, the North Carolina Fisheries Association based in New Bern, is perceived by many independent fishermen as being a "dealer organization," a perception which is not without basis as the largest North Carolina dealers provide the organization with much of its funding.

Local fishermen are known for their flexibility in switching gear and fisheries when one "plays out" or is restricted. Many also undertake "pick up" jobs such as "a little bit of" carpentry, net-repair, mechanics, trucking, dredging, and so on to "take up the slack" during poor fishing months. These activities are seen as supplemental to fishing, and few see the possibility of abandoning fishing to these other activities.

*Natives Versus Newcomers* In Atlantic, there is an ambivalence toward tourism that can be noted among both native and non-native inhabitants. Natives stress that the influx of tourism, although economically beneficial to the community, is negative in the long run, for "tourists and commercial fishermen don't mix" and "outsiders love it here so they stay here then they want to change it." An example often cited to support the first statement is the anti-commercial fishing sentiment expressed by "dingbatter sportsmen" at public hearings and in the News and Observer columns coming out of Raleigh. To support the second statement, the recent push to take middle school grades out of Atlantic school is cited: "All those in favor of doing that were residents from off." Non-local retirees tend to frown on more tourism, expressing the sentiment that "we moved here for the peace and quiet and we want to keep it that way; otherwise we'd have moved to Atlantic Beach." Those in favor of more tourism tend to be those few in tourist-related businesses (hotels, restaurants, convenience stores, marinas, etc.) and young residents struggling to make ends meet.

**Religion/Churches** There are three active and one inactive church in Atlantic. The inactive church is the Hunting Quarters Primitive Baptist Church, established in 1829. Originally located along the waterfront, the church was destroyed by a hurricane and rebuilt on a back road in 1918. The church had two members in 1990, and only one lives today. The church is reportedly attended by people who have never formally joined (Hewitt 1990).

Atlantic's Missionary Baptist Church is one of the two dominant churches in the community. Located next to the largest fish house, and attended by the two largest fish dealer families, the Baptist Church enjoys much community support and serves as a center of social life in the village. One of the older churches in the town, the stately brick church replaced another brick building which had burned down three decades ago. That one had replaced a wood-framed church that had been worshipped in for decades. This year, the upper portion of the church caught fire, but was put out before the whole church could be damaged. A fish house worker had seen lightening hit the steeple late that night. One woman joked that the revival which took place earlier in the evening was "really fire and brimstone!"

The Atlantic Methodist Church was established in 1878, but no building was erected until two decades later. Until then, services took place in people's homes or, if the weather cooperated, in the oak grove where the present day church is found. Revivals were held in tents. Today the Methodist church, like the Baptist church, is located in a stately brick building. Most church-goers in Atlantic are said to be "either Methodist or Baptist." This church is also a center for social activities, and the two churches occasionally co-sponsor events or special worship services. One woman in her thirties, who has lived in Atlantic for a few years, attended this church. She noted:

. . . there's great peer pressure in these churches to contribute.  
As you contribute, they post your name, so it's real obvious if  
you don't . . . and if you miss a service, everyone's aware of it.

The most recent church to organize in Atlantic is the Atlantic Holiness Church. This church is relatively small and has a congregation of under thirty people. The Pastor reported that his members tend to be of a lower-income than the larger Methodist and Baptist Churches. He was sympathetic to the plight of his congregation, many of whom are fishing families on the brink of poverty. The Pastor felt that the churches took the place of clubs and other such organizations in Atlantic:

Church has a social function here; they identify each other  
according to their church affiliation. Mary? Oh yeah, I know  
her, she's Baptist, right? You know Joe, he's Methodist . . .

Atlantic, according to the Pastor, could be divided into the church people and "the others." The others, he half joked, "can be found down at Don Morris'" (the campground with a bar

and grill). Firehalls, he added, are a big deal and supply a momentary time of fellowship with frequent social functions.

***Clubs, Service Organizations, and Other Voluntary Associations*** As the pastor in the above passage emphasized, Atlantic's churches largely take the place of clubs and service organizations in the village. Most everyone is identified as a member of this or that church or "other;" that is, a "non-church-goer." Although community members tend to be divided up according to their church membership, the activities of the Atlantic volunteer fire department cross-cut these division and serve to unify "everybody, no matter what their faith or income level." Fire fighters are often described as "local heroes" and the station's frequent fundraisers and social events are well attended. The school serves as a unifying force as well, creating a sense of community pride and solidarity. Atlantic residents are extraordinarily proud of and active in their school.

***Interest Groups*** Although no interest group is based solely in Atlantic, those associated with commercial fishing find membership and support in this fishing village. The North Carolina Fisheries Association (NCFA) is a private trade group which finds membership in the larger dealers of Atlantic. There is a tight network of area dealers from this county to Dare county; the NCFA is the primary means in which they lobby their causes in the public policy arena. Because fishermen tend to perceive the NCFA as being a "dealer organization," the trade group has difficulty recruiting them.

The Carteret County Waterman's Association is a trade group made up of local fishermen who promote watermen's rights and fair fisheries policy. This association filled a gap left by the NCFA, as its membership was almost entirely fishermen. Toward the end of 1992, however, the association suspended its activities because of declining interest and increasing cynicism about the future among local fishermen.

The NCFA organized three "women's auxiliaries" in the Spring of 1992: the Pamlico, Carteret, and Hatteras chapters. The Carteret Chapter finds most of its membership and support from fishermen's wives and dealer's female kin in Atlantic. Although suffering from the NCFA's reputation of being a "dealer organization," the auxiliary is increasingly finding support from fishermen. The goal of the Carteret Chapter was initially to raise money for the plight of commercial fishermen; ten percent of the proceeds were to be sent to the NCFA monthly. After finding numbers dwindling and interest waning at the monthly meetings, the auxiliary shifted its emphasis from organizing money raising events among women to simply providing a forum in which policymakers and fishermen can communicate. Recent guest speakers include the Director of state fisheries, Coast Guard representatives and Albemarle-Pamlico Estuarine Study representatives. These meetings, which occur anywhere from Cedar Island to South River to Salter Path, are attended by numerous local fishermen.

### 3.6.8.2 Social and Cultural Issues

A variety of issues confront modern-day Atlantic. The following describes issues mentioned with high frequency by key informants in the community.

***Sewage Disposal*** The most frequently named issue among respondents was the Atlantic Beach/Open Grounds Farm issue. In 1992, it was proposed that Atlantic Beach pump its treated wastewater to holding tanks in the Downeast Agribusiness Open Grounds Farm. There, it would be applied to the surface of selected crop areas. As described above, there was a tremendous community response, mostly from Downeast residents, who opposed this plan at a public hearing. This issue brought out the perception among Atlantic and other Downeast community members that their area is "dumped on" and poorly treated by county planners who cater to richer areas such as Atlantic Beach and Beaufort.

They think of us as poor ignorant fishermen. Why should they pay attention to us when they got rich towns and pay-offs and politics? Half the time they forget we even exist.

***Water Quality*** The decline of water quality is a preoccupation among fishermen and non-fishermen alike; this is an issue, like the Open Grounds issue, on which native and non-natives agree. The growing scarcity of Core Sound shellfish, especially oysters, is attributed by some scientists to over-development which can increase freshwater runoff. Open Grounds Farm is perceived to be the primary cause of declining quality of local waters because it is situated along major rivers and tributaries. Residents point to the existing problems with farm runoff, and fear the county might support a plan which would increase runoff in a fragile estuarine area. A concerned fish dealer described the potential problem with this method:

If they spread wastewater on Open Grounds Farm you won't see another oyster in Core Sound. You won't see a scallop. You won't see a clam.

***Fisheries Regulations*** This issue was also a concern for native and non-native residents alike. It is generally accepted that regulations are needed in the fishing industry to protect the fisheries stocks. However, it is believed that many of the present regulations are not enforced; rather, a barrage of regulations are "slapped one on top of the other" with no system of enforcement or monitoring. Fishermen are reportedly staggering under the weight of state, regional, federal and Coast Guard restrictions and requirements. A fisherman's wife lamented the slow "killing off" of fishermen by a series of unworkable regulations:

Why don't they just line up all the fishermen, wives and kids and execute them? Why kill us off slowly like this? Just massacre us like they did the Indians. We've lived and fished

here all our lives; we understand the situation this area (water) is in. Newcomers do more harm than good, with the exception of a few who help fight for our rights. Others move here and just want to change it rather than understanding the area.

Informants report lack of attention and cooperation from policymakers who regulate their livelihoods. Dealers and watermen agree on this problem, but some fishermen expressed the idea that dealers were part of this problem in not respecting and working fairly with fishermen. A fishermen's wife reported:

Look at the dealers around here. They all live in mansions. Did they inherit that wealth? No. We earned them that money. I know they help us out a lot. But . . . there is a general lack of support for commercial fishermen by higher-ups . . . dealers as well as marine fisheries people.

***Turtle Excluder Devices*** Sound shrimpers claim that abundant debris in Core Sound will foul up the Turtle Excluder Device, which is a required gear modification designed to minimize loss of sea turtles through fishing practices. Many say they simply cannot afford to buy two 150-300 dollar devices. Some shrimpers resent that no consideration is made of fishermen's efforts to protect turtles:

We pump their breastplates if they're punky, been doing it for years. We try to move them out of the way of the towing so's the next guy don't catch 'em.

Offshore flounder fishermen resent last year's reportedly conflicting and confusing restrictions imposed by the National Marine Fisheries Service. They report a high degree of equipment damage and fish loss due to problems associated with TEDs.

***Employment Alternatives*** The lack of employment alternatives to commercial fishing in Atlantic and the county in general is another important issue in Atlantic. Few residents see the tourism industry as any kind of viable alternative: "With our age and education, that means flipping burgers at Hardees." This problem was associated with middle-aged residents who are perceived as being non-employable because of their advanced age, lack of experience in non-fishing activities, and lack of any advanced education or even a high school education. It is also associated with the young residents who "are leaving this area in flocks 'cause there's no jobs." Neither young or old in Atlantic feel the pattern of out-migration was positive. Most believe Atlantic to be "paradise" and would prefer to find local employment. When asked what kind of employment is preferable to commercial fishing, most simply shrug. The future is truly an unknown to fishing families who can't imagine doing anything else.

***Atlantic School*** Another oft-mentioned issue is the continued erosion of support for Atlantic school. Residents sorely resented an earlier change which removed the high school grades and required high school students to be "bussed" to East Carteret High, in Beaufort. Residents now resent recent proposals to remove middle school grades and "bus" kids to a proposed middle school in Smyrna (now Downeast schools are K-8). More is at stake than the fear of sending "our little ones away;" residents feel the sense of community in Atlantic is threatened, as fewer sports, plays and other such events are organized. One former fisherman and present worker at Cherry Point stated:

Our kids don't get the attention and the community pride we had as youngsters. They get thrown in with hundreds of other county kids and get lost in the crowd. They don't stand a chance of excelling in sports with all the other kids they have to compete with.

Related to the school issue is the idea that the county at large does not give Atlantic the attention it deserves; residents say that less financial and teaching assistance is allocated to Downeast schools than those in Beaufort or Morehead. Nonetheless, the great pride residents have for their school seems to make up for any lack of county attention, for the performance level of Atlantic students is relatively high.

### **3.6.9 Summary**

In summary, the above issues point to an overarching problem that many Atlantic residents are experiencing -- increasing lack of control over their lives. That which fishermen consider their very "lifeblood," commercial fishing, is declining because of what is perceived as outside forces: agribusiness, tourist/resort communities, and policymakers. Furthermore, residents fear the implications of the flight of young Atlantic residents who are compelled to leave because of the lack of job opportunities. In effect, everything that has defined Atlantic in the past century has, in recent years, become jeopardized. Times are changing rapidly and few residents see an alternative occupation that would keep native residents home and happy in the future.

## **3.7 BEAUFORT**

### **3.7.1 Introduction: Beaufort and the Case Study Communities**

Beaufort is one of eight municipalities in Carteret County and is the county seat. It is the second largest municipality in the county; its population was 3,808 in 1990. Beaufort was chosen as a case-study community because of its close proximity to the site of potential OCS-related landfall facilities in Morehead City, and it differs, in many ways, from its larger neighbor, Morehead City. Beaufort's historical ambiance, as promoted by the Beaufort Historical Society, is one of the county's biggest attractions for tourist dollars.

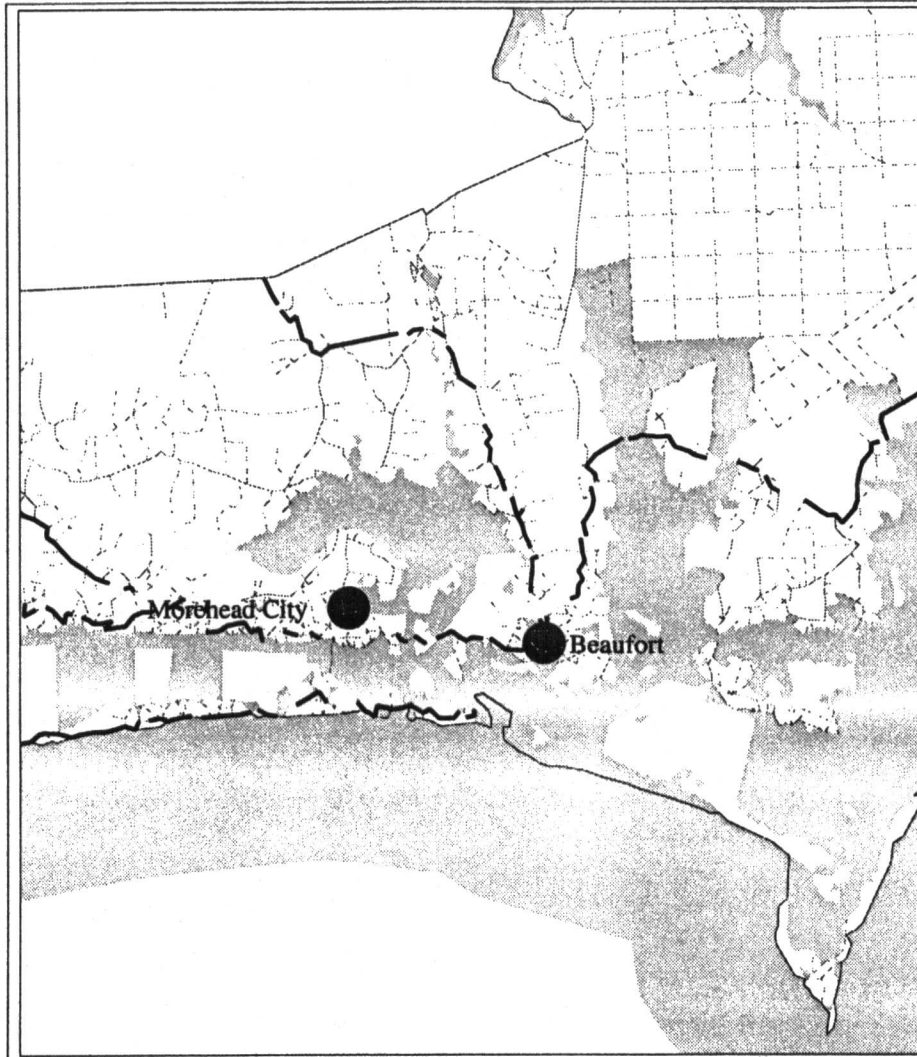
### **3.7.2 Physical and Biological Environmental Overview**

Beaufort's topography, like that of other communities in Carteret County, is flat and somewhat swampy (Holland 1991:I-70). This coastal plain community is bordered on the west by Newport River (from which comes the Intracoastal Waterway), on the east by North River, and on the South by Taylor's Creek and the Atlantic Ocean. Beaufort is protected from the Atlantic ocean by Shackleford Banks (a nine mile long section of the Outer Banks) and the smaller Bird Shoal/Carrot Island bar, situated between Beaufort and Shackleford Banks.

Although the community's physical appearance and abundance of fish and wildlife have changed since its early history, the town has preserved a number of its resources. Today, the town is part of an ecological system which includes barrier islands and estuaries known for their rich flora and fauna and diverse habitats. Rivers, creeks, mud flats, marshes, dunes and bird islands are abundant in the area, as are sand beaches, peat bogs, cypress swamps, pocosins, coastal forests, pond and longleaf pine habitats.

Beaufort is situated within an area scattered with fishing and agricultural communities. Also, it is close to the Cape Lookout National Seashore and the Rachel Carson Estuarine Research Reserve.

Beaufort is frequently cooled by ocean breezes and maintains an average summer temperature of seventy-six degrees. Winter temperatures rarely fall below freezing and average around forty-five degrees (Carteret County Economic Development Council 1992:10). The average annual rainfall is 53.8 inches. Snowfall is minimal, with an average annual accumulation of 1.5 inches.



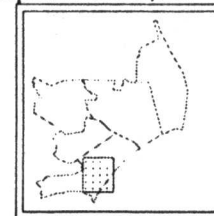
# COASTAL NC STUDY AREA BY COMMUNITY

## Legend Explanations

- Case Study Communities
- County Boundary
- Water Body
- Land Mass
- State Hwys
- ⋯ County Roads
- ⋯ Local Roads



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Both temperate and tropical species of plants and animals inhabit the Beaufort area. Its location within thirty to forty miles of the Gulf Stream allows many species of fish to frequent the area including (but not limited to) inshore species of channel bass (red drum), sea trout, gray trout, mullet, bluefish, pompano, clams, Largemouth bass, flounder, and menhaden; and offshore species of blue marlin, white marlin, shark, croaker, grouper, tuna, bonito, king mackerel, swordfish, hammerhead sharks, wahoo and dolphin (mahi mahi).

Other animals also commonly found in or around the area's waters are crab, shrimp clams, squid, snails, jellyfish, sea urchins, sponges, starfish brittle stars, sand dollars, ctenophores, polychaetes, hydroids, dolphins, sea turtles, gulls, herons, geese, ducks, egrets, skimmers, terns and brown pelicans. Oysters and scallops are also found in the area in less abundance since the red tide that impacted the area a few years ago. Whales can be spotted near the barrier islands close to Beaufort as well.

A population of feral horses grazes on saltwater grass and sea-oats on Carrot Island, directly across Taylor's Creek from the community's waterfront. These sea grasses are among a great variety of sea and marsh grasses in the area. A diversity of sea weeds and phytoplankton can also be found in the region's waters.

### **3.7.3 Community Chronology**

Before the town of Beaufort was established and mapped in 1713, its general area was known as "Wareuock" and was inhabited by the Neuse and Core Indian tribes. After these groups were driven westward by English and French settlers, Beaufort became increasingly popular as a center for maritime commerce. By 1722, shipping was so active that Beaufort was declared a seaport by the Lord Proprietors. It also was incorporated in 1722 and became the third town established in North Carolina. The town has functioned as the seat of Carteret County ever since (Kell 1983).

Throughout the eighteenth century, Beaufort became a base for whaling, shipbuilding, and import and export trade. It was popular not only for its sheltered location along a treacherous coastline, but for the bounty of its land: wildlife for meat and furs; abundant fisheries; timber, turpentine and pitch; and fertile soil and a long growing season for crops (Maiolo and Tschetter 1982:208).

Its popularity as a port made the town strategically important in times of war but also vulnerable to invasion. Beaufort was periodically invaded by pirates in the early 1700's (Kell 1983). Spanish privateers entered the harbor in 1747 and held the town for several days (Ashe 1925:270). During the American Revolution British soldiers entered the harbor and pillaged the town until they were defeated by lack of supplies and hostile townspeople (Kell 1983:76).

During the War of 1812, when the ports of Charleston and Baltimore were blocked, Beaufort was strategically important as a port for privateer operations. One of the major privateers is the greatly celebrated Otway Burns, whose grave and cannon are located in Beaufort's Old Burying Ground (Kell 1983:76).

Beaufort developed not only as a center for maritime commerce but as a resort area. West Indies plantation owners summered there as a respite from mosquitoes and malaria. Others sought the "watering hole" and cool prevailing winds of this sheltered seaside village (Kell 1983:76). The three-story Atlantic hotel was built in 1851, only to be occupied ten years later by Federal troops and converted into a hospital during the Civil War (Kell 1983:76). Upon the close of the War, the community resumed its popularity as a trade and resort center.

At the turn of the century, most communication and transportation occurred via water. Steamship lines ran from Beaufort to Baltimore, freight lines ran to Norfolk and merchant vessels hailed from the world over. In 1908, a railroad was built connecting Beaufort to neighboring Morehead City and points west (Kell 1983:77). A bridge connecting the two towns was not built until 1928 (Maiolo and Tschetter 1982:210).

The development of the Morehead City port, which was deeper and more accessible to large ships than was the port at Beaufort, led to the decline of the town as a merchant port in the late nineteenth and early twentieth century (Maiolo and Tschetter 1982:210). It relied heavily on commercial fishing throughout much of the twentieth century, exporting salted fish and menhaden products via the railroad. For the first half of the twentieth century, the factory production of menhaden dominated the economy of Beaufort and surrounding areas. This industry became the largest employer of the rural population until a technological innovation cut the labor force in half (Frye 1978). Commercial fishing remained strong throughout the twentieth century, but the fastest growing source of revenue in more recent years came to be tourism and recreation. The "urban renewal" campaign of the 1970's transformed Beaufort from a town of rotting wharves and weather-beaten fish houses to an upscale historical waterfront area of yacht marinas and retail stores.

### **3.7.4 Demographic Characteristics**

#### **3.7.4.1 Population History**

Although the population has more or less grown steadily since the town's incorporation, growth has been slow relative to such municipalities such as Morehead City. In 1860, the population of Beaufort was five times greater than Morehead City. By 1910, the two municipalities had populations which were about equal in size (Maiolo and Tschetter 1982:209). After World War II, the population of Morehead far surpassed that of Beaufort. By 1970, Morehead had twice the population of the slower-growing Beaufort (Maiolo and

Tschetter 1982:209). Table 3.7-1 depicts additional population figures for Beaufort for 1980 and 1990.

<b>Table 3.7-1 TOTAL POPULATION: BEAUFORT</b>	
<b>Year</b>	<b>Population</b>
1930	2,957
1940	3,272
1950	3,212
1960	2,922
1970	3,368
1980	3,826
1990	3,808
Source: U.S. Bureau Census Bureau	

#### 3.7.4.2 Recent and Current Population Characteristics

While the municipality has grown slowly in the past few decades, the surrounding unincorporated areas of the township have grown more quickly. A primary reason for slow growth are the restrictions associated with the historical district. Generally, only high-income people can afford to live in historical Beaufort. Very few infrastructural or household changes can be made in accordance to rigid historical district guidelines.

**Total Population** According to U.S. Bureau of the Census figures (1990), the total population of the municipality is 3,808. This shows a decrease of eighteen persons since the 1980 count. The population of the total township of Beaufort was 7,563 in 1990, 3,755 of whom lived outside municipal limits. The 1980 total township count was 6,992, 3,166 of whom lived outside municipal limits. From 1980 to 1990, the population in unincorporated areas increased by 589 persons. The increase is likely due to the suburban housing developments, which are located outside municipal limits (U.S Census 1980, 1990). The population density was 192.3 persons per square mile according to the 1990 census.

Table 3.7-2 POPULATION TRENDS 1980, 1990: BEAUFORT TOWNSHIP, MUNICIPALITY AND UNINCORPORATED AREAS			
Location	1980	1990	Percent Change
Total Township	7,563	6,992	8.2
Municipality	3,808	3,826	-.5
Unincorporated	3,755	3,166	18.6
Source: U.S. Bureau of the Census			

**Age/Gender Distribution** According to the census findings, the municipality had slightly more females than males in 1990. Of a population of 3,808, fifty-five percent were female and forty-five percent were males. The median age of the total population was 37.5 in 1990, slightly higher than the 1980 median age of 35.5.

**Ethnicity** Of the 7,563 persons living in Beaufort township in 1990, 5,793 were Caucasian and 1,689 were African-American. Among the Black population, 908 lived within the municipality of Beaufort. Only forty-five people claimed Hispanic ethnicity, twenty-nine classified themselves as Indian/Eskimo/Aleut and twenty-seven reported themselves to be Pacific Islanders.

**Household Characteristics** The municipality contained a total of 1,714 households in 1990, a 10.08% increase from the 1980 count of 1,557. The number of family households in 1990 was 1,074, while non-family households numbered 640. The family households were comprised of an average of 2.89 persons (see Table 3.7-3).

**Housing Information** In 1990, 3,628 housing units were located on 39.32 square miles of land in Beaufort. Table 3.7-4 depicts additional housing information for the municipality.

<b>Table 3.7-3 HOUSEHOLD INFORMATION: BEAUFORT</b>			
<b>Census Category</b>	<b>1980</b>	<b>1990</b>	<b>% change</b>
Total Number of Households	1,557	1,714	10.0
Average Number of Persons per Household	2.44	2.21	-9.4
Percent of Married-couple Families	72	62.66	-12.9
Percent of Male Householder Families	.57	2.92	412.2
Percent of Female Householder Families	15.92	12.22	-23.2
Percent of Non-family Households	27.87	41.95	50.5
Percent of Householders Sixty-five or Older	10.59	15.16	43.1

Source: U.S. Bureau of the Census

<b>Table 3.7-4 HOUSING INFORMATION 1980, 1990: BEAUFORT</b>						
<b>Type of Unit</b>	<b>Number of Units</b>			<b>Median Value/Rent (\$)</b>		
	1980	1990	% change	1980	1990	% change
Total housing units	1,772	2,085	17.6	--	--	--
Owner-occupied units	1,000	959	-4.2	30,000	61,400	104.6
Renter-occupied units/vacancy rate	557	762/11%	36.8/--	114	254	122.8
Mobile homes	86	132	53.4	--	--	
Vacant housing units	177	364	105.6	--	--	--
Units vacant for seasonal use	38	146	284.2	--	--	--

Source: U.S. Bureau of the Census

In addition to several rental houses available in Beaufort, there are five apartment complexes, including one which is largely low-income. The average monthly rent of the total 762 rental units in 1990 was \$254. The average cost of the 959 owner-occupied housing units in 1990 was \$61,400. Of the 364 vacant housing units, 146 were used for seasonal, recreational, or occasional use.

### 3.7.4.3 Seasonal Variation in Population

Although the municipality has experienced a decrease in permanent population in recent decades, it experienced a great increase in the seasonal, non-permanent population during the same period. From 1970 to 1987, Beaufort showed a sixty-five percent increase in the non-permanent "recreational" population during peak season. The unincorporated areas of Beaufort showed an increase of 25.6% in the non-permanent population for the same period (Holland 1991:I-19).

### 3.7.4.4 Local Population Issues

The municipality of Beaufort has not grown as rapidly as Morehead City or Atlantic Beach, but it is experiencing the same stresses on facilities such as sewer, water and existing roads and bridges. Population growth within Beaufort Township occurs more rapidly in unincorporated areas where subdivisions are increasingly common. Within the municipality, especially in or near the historical district, soaring property values and taxes discourage expansion of a middle to lower-income population.

## **3.7.5 Economic Characteristics**

### 3.7.5.1 Local Business/Industry

Unlike small villages such as Atlantic, historically, Beaufort residents have not been engaged in one primary occupation like commercial fishing. Rather, people of varied income levels worked in a variety of occupations such as farming, fishing, carpentry, trade, politics and law. Today, Beaufort remains part of a county with a relatively diversified economy. Agriculture, manufacturing, real estate, tourism, retail trade, import/export industry, government, the military and commercial fishing are all significant sources of revenue (Holland 1991:I-26). In manufacturing, the largest employer for all of Carteret County is the privately-owned Atlantic Veneer, located in the township of Beaufort. This is the largest veneer operation in the United States and it employs about 700 people. The last remaining menhaden reduction plant in North Carolina, Beaufort Fisheries, is the county's second-largest employer in manufacturing, providing about 120 jobs (Carteret County Economic Development Council 1992a:6, Holland 1991:I-34). Both of these manufacturers distribute their products nationally and internationally. Other manufacturing businesses in the township of Beaufort include two ice plants, five seafood processors/packers, one chemical plant, four boat-building operations, one lumber company and two textile plants (Holland 1991:I-34, 35). Beaufort's concrete plant, Diversified Concrete Products, eliminated fifty relatively high-paying jobs in the area by discontinuing operations in October 1992.

**Commercial Fishing** According to DMF, 607 fishing licenses were issued in Beaufort in 1991. Commercial fishing vessels working out of Beaufort range from eighty-foot steel trawlers to small skiffs. Fisheries targeted include: shrimp, flounder, grey trout, croaker, and spot. Among the most important local fisheries are the menhaden and blue crab fisheries.

The menhaden fishery is one of the most industrialized fisheries in the United States. Of three remaining menhaden plants on the Atlantic coast, one operates in Beaufort. The menhaden industry involves the factory reduction of menhaden (*Brevoortia tyrannus*) into oil and dried meal. The oil is used domestically in paints and resins and is sold overseas as an ingredient in food products. The oil was also recently approved by the FDA for human consumption. The meal is used primarily as an ingredient in livestock feeds and is sold predominantly to poultry companies.

The harvesting of menhaden involves large steel vessels up to 220 feet in length, typically converted navy patrol boats. Menhaden vessels carry a crew of about fourteen persons. The vessels hold two smaller "purse boats" which are dropped upon the sighting of menhaden. Once the purse boats are lowered, five or six persons board each and speed toward the school of fish, a large purse net playing out between them. They circle the school with the net, the net is "pursed," and hundreds of thousands of menhaden are captured. Then the mother vessel nears the "set," and a pump is lowered into the net to load the fish. Once the fish are loaded, the men wait for the next sighting, usually made by a "spotter pilot" flying above in radio contact with the captain. Vessels ply nearshore waters from New York to Georgia. North Carolina is famous for its abundant "fall fishery" when Virginia vessels join local vessels in the Cape Hatteras and Cape Lookout area to make "Christmas money."

The North Carolina labor force for the menhaden industry differs from other local fisheries in ethnicity and in employment status. Whereas most fishermen in Carteret County are whites, white and Black fishermen work together in the menhaden industry. Historically, the crewmen were almost always, Black while the captain and officers were white. This hierarchy persists on many vessels today, although it is common to have both Blacks and whites as crewmen, and occasionally, a Black crewman will work his way to captain. The employment status of fishermen in the menhaden industry is unique because captains and crewmen alike are hired employees and receive unemployment benefits during off-season months. Thus, like crews in other fisheries, crewmen receive a "share" of the catch; unlike other fishermen, menhaden crewmen have financial benefits when not fishing.

In recent years, fisheries regulations imposed upon the menhaden industry have resulted from "user conflicts" with various sportsfishing groups. These groups have argued that menhaden vessels catch "food" fish or "break the food chain" and indirectly harm the sports fisheries. Many of these conflicts are perceptual. Menhaden factories and vessels are unsightly, an old cacaphony of industrial equipment and stench. Incoming recreators and retirees to Beaufort

and surrounding areas are offended at finding the trappings of industrialism in their post-industrial sunbelt south resort area (Garrity-Blake, in press).

When factories dominated Beaufort and surrounding areas from the 1920's to the early 1970's, the local slogan was "the smell of menhaden is the smell of money." Now public consensus seems to be "the smell of menhaden is the smell of pollution." The most recent conflict comes from Dare and Currituck counties, where some are pushing to have menhaden vessels restricted from inside three miles of the coast. The reasons cited are aesthetic; residents simply "do not want to see the shad boats off their beach." The blue crab (*Callinectes sapidus*) or "hard crab" fishery, as locals put it, is an inshore water fishery harvested by pots, dredging, or trawling. Pots are most common among Beaufort and other county crabbers, and currently there is no limit to the number of pots per crabber except for those who set pots in Newport River (150 pot limit per fisherman). There are also restrictions on taking crabs with dredges, a practice common in cold water months when crabs are found under layers of mud along river and estuary bottoms. Those who trawl for crabs, oftentimes shrimpers converted to crab trawling during non-shrimping months, have a three inch stretched mesh size requirement (North Carolina Division of Marine Fisheries 1992:207). Beaufort residents who trawl for crabs usually do so in the Neuse River or Core and Pamlico Sound. Crab trawling and dredging is a supplementary activity; few depend primarily on these activities (North Carolina Division of Marine Fisheries 1992:29).

**Marine Services** Beaufort has five marinas, eleven marine supply stores, three boat builders/repairers, three charter boat outfits, two canvas works, two sailmakers, eight boat dealers, two boat storage facilities, six seafood dealers, eight fish wholesalers and one tackle dealer. One salvage diving company works out of the community, as does one sport diving company. Three marine contractors are based there. One marine towing and salvage company works out of Beaufort.

**Tourism Services** The largest source of revenue for the municipality of Beaufort is tourism and recreation. The Beaufort Historical Association is particularly important. The Beaufort Town Administrator has referred to it as Beaufort's largest "drawing card" for tourists and tourist dollars. Annual activities such as the Old Homes Tour and the Revolutionary War re-enactment attracts great crowds, as do daily bus tours of the historic district which offer a look at centuries-old cemeteries, churches and homes. The presence of the North Carolina Maritime Museum and boat-building facility is also a local attraction, as is Carrot Island, a natural area inhabited by wild horses directly across from the Beaufort waterfront. Area shops and restaurants benefit greatly from the town's historic appeal.

**Food Services** Beaufort has no major grocery stores although two are located within the township. A common complaint among yachtsmen with no land transportation and among native townspeople is that Beaufort proper has very limited grocery supplies. Some of the latter point to the lack of grocery stores as evidence that historical Beaufort is no longer "liveable."



There are twelve restaurants in Beaufort, ranging from one fast food restaurant to several moderate-to high-priced waterfront restaurants. One fast food restaurant and two low priced lunch cafes are located outside town limits (Nance and Greene 1992:79-90).

**Lodging** The town of Beaufort has one low-priced motel which is frequently booked by scuba divers, and six moderate- to high-priced inns and bed and breakfast establishments (Nance and Greene 1992:120-125). There are no lodging accommodations outside the town limits.

**Medical** As the County seat, the town houses a county health department which provides immunizations, AIDS tests, birth control, and nutritional and pregnancy counseling. Three physicians and two dentists have private practices in Beaufort. Beaufort residents are five to ten minutes from the General Hospital and the Medical Park in Morehead City. The Beaufort Rescue Squad provides ambulance service to the hospital.

**Construction** There are sixteen general contractors in Beaufort and two excavators, one of which specializes in septic tank installation. Ten companies specialize in various facets of home improvement.

**Other Businesses/Industries** Five marine science and research facilities are located in the area, two of which are in Beaufort. The National Marine Fisheries Service has its federally-maintained Beaufort Laboratory on Pivers Island. Duke University owns and operates a large marine laboratory and educational facility on Pivers Island.

The municipality has four women's boutiques, about two dozen gift shops, one drugstore and two hardware stores. Outside the town limits are two shopping centers, each with a grocery store, a drugstore, a discount store and one with a shoe store and laundromat. There are also four marine supply stores within the town limits, as well as two building supply stores.

There are numerous miscellaneous services offered, including private legal assistance, accounting assistance, automobile repair, banking services, beauty salons, construction companies, a slaughter house, house and office cleaning services, caterers, five-day care facilities, electricians, florists, furniture stores, insurance companies, landscape designers, painters, pest control, photographers, plumbers, real estate companies and appraisers, septic tank installers, tire dealers and wrecker services.

### **3.7.5.2 Public Sector Sources of Employment**

The largest employer in Carteret County is the Carteret County school system, which employs over 950 residents (Carteret County Economic Development Council 1992a:6). In addition to the school system, other public sector agencies provide a large number of jobs in the area. About 600 residents are employed by the County or State in fishery agencies and

the Department of Transportation. Approximately 100 people are employed at each of the following facilities: the Morehead City State Port, the National Oceanic and Atmospheric Administration (NOAA) Beaufort Laboratory and Carteret Community College (Carteret County Economic Development Council 1992a:6).

A significant number of civilian and military personnel have been employed at the nearby Cherry Point Marine Corps Air Station and Camp Lejeune. In 1988, an estimated 1,400 military personnel and 2,400 federal civilians associated with these installations resided in Carteret County (Holland 1991:I-43). However, few new civilian jobs have been available in recent years. Considering the general reduction in U.S. armed forces, it is possible that even fewer jobs at the military installation will be available for Beaufort residents in the future. According to the Carteret County Economic Development Council (1991a), 293 residents of Beaufort were employed at Cherry Point. Combined gross annual income was \$10,122,398. Gross pay for the 1500 Carteret County native employed at Cherry point was 51,251,330.

In Carteret County, federal government jobs accounted for thirty-nine percent of the earnings and twenty-seven percent of the employment in 1988. State and local government in Carteret County was a major employer and provided jobs in education, fisheries, planning and development, transportation and environmental regulation (Holland 1991:I-42).

### 3.7.5.3 Private Sector Sources of Employment

As previously stated, the largest single employer in the private sector is the manufacturing company of Atlantic Veneer, employing some 700 people. The second largest private sector employer is Carteret General Hospital, with 400 health-care workers. Well over 200 people work in County nursing homes. Major chain grocery/discount/retail stores are important sources of employment: Food Lion employs between 90 and 240 residents depending on the season, Wal-Mart has 200 employees, Roses employs 132, Sears has 110 workers, and Belks employs between 120 and 170 residents. Henry's Tackle and Sporting Goods employs 171-202 people. Although clothing manufacturing has declined in recent years with the closing of such major factories as Bluebell, remaining companies such as Down East Togs and Cross Creek Apparel employ over two hundred workers each.

Commercial fishing employment accounts for an estimated ten percent of the County's working population (i.e., approximately 3,200 people) who harvest on a full-time basis. A total of twenty percent of the County's population is directly or indirectly employed as a result of commercial fishing, including seafood dealers, marine supply stores, and fisheries research and enforcement. Luther Smith and Son Seafood in Atlantic employs over one hundred residents, as does the Beaufort Fisheries menhaden plant during peak season (Carteret County Economic Development Council 1992:3,4,6).

#### 3.7.5.4 Seasonal Variation In Local Economy

Beaufort experiences its heaviest tourism during the summer between Memorial Day and Labor Day. However, the difference between "on-season" and "off-season" is perhaps not as dramatically felt as in previous years, or as it is now felt in nearby Atlantic Beach, because Beaufort experiences tourism throughout the year as visitors come to see the historical district.

#### 3.7.5.5 Local Economic Issues

The general consensus is that the area needs economic stimulation. The form that the stimulation should assume (e.g., promoting tourism, bringing in new industry, changing regulations to help fishermen) is debated by citizens and local government alike.

The median family income in 1990 was \$28,187, up 89% from the 1980 median of \$14,929. The 1990 per capita income was \$11,385, up 81% from the 1980 per capita income of \$6,273.

There is a perception on the part of a number of residents that the level of taxation is a factor that is "forcing" some long-time residents to sell their property and move out of town because they cannot afford to pay tax on the rising property values. This has reportedly caused bitter feelings for those who move. Town government has reportedly been trying to reduce the burden on some of these citizens. This action, in turn, is said to have irritated another part of the population that supports higher taxes so that Beaufort will have more money to spend on infrastructural improvements, promotion of tourism and improvement in the general standard of living in the area.

Both long-term residents and visitors interviewed are wary of the most recent trend of tourism, as few trust the dependability of a service-based economy. Beaufort's Black community, some of whom live in town "on the other side of the tracks" but many others who live a good distance north in the rural community of North River, have essentially been left out of this most recent economic transformation. The contrast between such impoverished communities and the upscale downtown Beaufort is stark; a recent example of the distance between these two worlds is illustrated in the situation of a young Black resident of North River who recently signed on for a much publicized multi-million dollar contract with the New York Yankees baseball team. The local news station interviewed "hometown residents" to get their reaction: rather than reporting from North River, the newscast broadcasted interviews of middle and upper class whites along the waterfront of Beaufort, seemingly oblivious of the fact that this was far from the young man's "hometown."

### **3.7.6 Locally-Active Governmental Institutions and Services**

#### **3.7.6.1 Governmental History**

Beaufort, the third oldest town in North Carolina, was incorporated in 1722 (Kell 1983). The town has since functioned as the seat of Carteret County, housing the courts, the county jail, the tax office and other such administrative offices (Kell 1983).

#### **3.7.6.2 Federal Government**

The U.S. Post Office in Beaufort employs eighteen people. Ten of these are full time, including one postmaster, two clerks, six mail carriers and one maintenance worker. The Beaufort Post Office serves 920 post office boxes and has the capacity for 4,097 total possible deliveries.

The National Marine Fisheries Service (NMFS), under the auspices of the National Oceanic and Atmospheric Administration, is located on Pivers Island within the Beaufort Township. NMFS is a fisheries and fishery habitat research center for the Southeastern United States. The agency is primarily concerned with fisheries important to recreational and commercial groups in Federal waters from three to 200 miles offshore, although it reserves the power, in certain cases, to regulate activity state waters. The NMFS Beaufort Laboratory manages the Southeast Fishery Center's Habitat Protection, Menhaden and Herrings, and Reef Fish Programs (Carteret County Economic Development Council 1992b:9).

The Department of Agriculture has an office of Agriculture and Stabilization Conservation in Beaufort. This office administers a number of programs to county farmers working in areas outside town limits. These include cotton, tobacco, feed grain, wheat, a price stabilization program on commodities, a conservation reserve program, a forestry incentive program, a stewardship incentive program, an emergency feed program, disaster assistance services, and the recently implemented wetland reserve program whereby farmers return wetland acreage to the federal government for easements used for hunting and fishing. The Department of Agriculture also has a Soil Conservation District office in Beaufort.

#### **3.7.6.3 State Government**

The North Carolina Division of Marine Fisheries (DMF) is based in Morehead City, approximately four miles west of Beaufort. This agency has jurisdiction throughout coastal North Carolina for estuarine fisheries and fisheries, that occur from zero to three miles offshore. As a division of the Department of Environmental Health and Natural Resources, the DMF is charged with the management of all marine and estuarine resources (both commercially and recreationally used) in coastal creeks, bays, rivers, sounds and in state

ocean waters. It is further charged with the enforcement of fisheries regulations (Carteret County Economic Development Council 1992b:9). The Rachel Carson component of the North Carolina National Estuarine Research Reserve is also in Beaufort, which gives educational tours of the reserve to the public.

Other state government offices located in Beaufort are primarily those associated with the judicial system, such as probation and parole offices, juvenile court and vocation rehabilitation services.

#### **3.7.6.4 County Government**

Beaufort is the Carteret County Seat and houses numerous agencies and offices typically associated with county government. The county courthouse and associated facilities are located in there, as is the administration building with the Tax Assessors office, the Register of Deeds, the Fire Marshall's office, the County Planning Department and the County Manager's office. The Carteret County Health Department provides services such as immunizations, pre-natal care, and well-baby care. Community Action is located in Beaufort, as is Social Services with programs such as food stamps and foster care

The Carteret County Board of Commissioners is made up of five members who serve four-year staggered terms, one serving as Chairman. The Board of Commissioners is charged to enter orders, adopt resolutions, adopt ordinances, adopt the County Land Use Plan, hold public hearings, appoint the County Manager, the County Attorney and the Clerk to the Board.

The Carteret County Planning Board is a nine-member advisory body created by the Board of Commissioners. The Planning Board is responsible for making studies and plans and providing input for the development of Land Use Plans according to CAMA planning guidelines. The Planning Board advises on the location of new public facilities, makes recommendations regarding zoning ordinances for the County and advises in the approval of subdivision plats (Green 1981:301).

The County Department of Planning does the initial research before requests are put before the Planning Commission. The Planning Department played a central role in developing the County Land Use plan, undertaking research, consulting citizens and hiring a consultant to write the plan.

Beaufort residents are within Carteret County Division I, District 3 Court, which includes Pitt, Craven, Pamlico and Carteret Counties. Superior Court, which involves jury trial, covers Carteret, Craven and Pamlico Counties. Offices in the Carteret County Courthouse are the following: Clerk of Superior Court, Criminal Division, Civil Division, Estates Division, Community Service Division, District Attorney's office, Magistrate's office, Public Defender's office, Child Support office and office of the Superior Court Judge.

Carteret County Health Department is based in Beaufort and offers a full-service laboratory for such needs as blood tests, sexually-transmitted-disease testing, cancer screening, immunizations and pregnancy tests. The health department offers programs such as WIC, child/adolescent health, adult health, prenatal care, Baby Love, neurology and speech pathology, general health education and health promotion.

The county health department also offers environmental/public health services, such as septic tank inspections, water testing, on-site soil evaluation for sewage, food and lodging facility inspections, day care and rest home inspections, and solid waste inspections. The health department is also instrumental in mosquito and rabies control.

### 3.7.6.5 Community Government

The community government in Beaufort is based on a Town Board system. Beaufort's Town Board is comprised of five elected commissioners and a mayor. The commissioner's terms are staggered and last four years. The elected mayor has a two-year term and does not have a vote on Town Board decisions, except in the event of a tie. Beaufort also has one town administrator.

The 1992 town budget was \$1,821,267. Money is allocated to general government, public safety, transportation, environmental protection, economic development, recreation and capital outlay/reserve.

***Law Enforcement Facilities and Services*** Beaufort is under the jurisdiction of the Beaufort Police Department. The department employs thirteen staff and averages twenty-one calls per day in the summer and fifteen calls per day in the winter. Typical calls are false alarms at businesses, domestic calls, calls to unlock vehicles, calls to assist the rescue squad and larcenies.

The Carteret County Sheriff's Department, based in Beaufort, has jurisdiction in all County areas outside municipal limits. The Sheriff's Department employs sixty people and deploys twenty-five vehicles. It averages fifteen calls per day, mostly from the western part of the County. Most calls are reported to be drug-related, alcohol-related or domestic disputes.

Carteret County has a jail within the Sheriff's Department facilities. The Carteret County Prison is located in Newport, about eight miles west of Beaufort.

***Fire Prevention and Suppression*** The Beaufort Fire Department is staffed by eight paid firemen (including one Chief and one Inspector) and forty-two volunteer firemen. The Department operates five trucks including three pumpers, one tanker and one equipment truck. It averages fifteen calls per month. It has a number six fire insurance rating. The Beaufort Fire Department will provide service beyond corporate limits in the event of a mutual aid call.

**Emergency Medical Services** Emergency ambulance service is provided by the local Rescue Squad, which employs two paid and twenty-seven volunteer workers, and is supported by county tax dollars. The Rescue Squad averages ninety calls per month for Beaufort Township, treating and/or transporting patients to Carteret General Hospital. The squad has three ambulances, one crash truck and one first-responder unit. No rescue squad in the county employs or receives assistance from paramedics.

**Public Works** The Public Works Department offers services similar to those in Morehead City, except Beaufort does not contract out these services to other agencies. The department is a full-service municipality with programs such as curbside recycling, trash collecting, street work, tree-trimming, grass-cutting and, unlike Morehead City Public Works, includes wastewater and sewer services. Beaufort Public Works employs thirty personnel, including those who are employed to work at the water and sewer facilities.

**Education** The Carteret County school system serves Beaufort public schools. The elementary school had a 1989 enrollment of 679 students, seventy more than in 1984. Beaufort Middle School had an enrollment of 353 in 1989, thirty seven less than in 1984. East Carteret High School, one of two high schools in the county, serves all high school students in Beaufort and east of the town to Cedar Island. This facility had 749 students in 1989, 113 less than the count in 1984. Although not as overcrowded as Morehead City public schools, Beaufort's schools are at, or exceed, capacity as defined by the state basic education plan. Beaufort Middle School is particularly overcrowded (Holland 1991:I-105,106).

The only private school in Beaufort is Beaufort Christian Academy, which offers day classes for K through 12. Some Beaufort students attend private school in Morehead or Newport.

Beaufort high school graduates either leave the county to pursue a college education or attend the Carteret Community College (CCC) in Morehead. CCC offers vocational/technical training, as well as general education course transferable to East Carolina University in Greenville, North Carolina.

Duke University Marine Laboratory is located on Pivers Island, 150 yards across the channel from the town and within township limits. Originally constructed as a summertime training and research facility in 1938, this inter-disciplinary marine laboratory now conducts classes and year-round research. Twenty-three buildings (including dormitories, classrooms, research buildings, a residence, a boat house, a storehouse and a maintenance complex) and a 50-foot research vessel are components of the campus. It is staffed by resident faculty and research scientists in the fields of biochemistry, botany, ecology, geology, oceanography, physiology, zoology and systematics. The school offers undergraduate as well as graduate and professional degree programs. Operating from the lab is the University's Marine and Freshwater Biomedical Center, which conducts studies concerning marine organisms and their relationship to human and environmental health (e.g., the effects of various pollutants

on various plant and animal systems are a concern in the research efforts at the center). Support is provided to the Biomedical center from the National Institute of Environmental Health Sciences.

***Social Services*** The Department of Social Services in Beaufort offers the following public assistant programs: Aid to Families with Dependent Children, Food Stamps, Medicaid, Special Assistance, Low Income Energy Assistance Program, Crisis and Emergency Programs, Adult Foster Care, Health Support Services, Individual and Family Adjustment Services, Housing and Home Improvement Services, Adult Protective Services, In-home Aid Services, Transportation Services, Community Alternatives Program, Child Day Care, Protective Services for Children, Foster Care for Children, Adoption, Individual and Family Adjustment Services, Job Opportunities and Basic Skills Program, and Carteret Home Health Service (Carteret County Department of Social Services 1990).

The Department of Social Services reported a large increase in applicants during the period 1991-1992. This change has been attributed to the nation-wide recession, the overall reduction of manufacturing jobs in the county and to the increase in minimum-wage service jobs. In recent months the typical number of applicants visiting Social Services is about 2,000 in a thirty-day period. The agency also receives about 9,000 telephone calls in an average month. The most common types of service requested are Medicaid, Food Stamps and AFDC.

Beaufort Housing Authority provides 100 total apartments in four Beaufort location for low-income residents. Rent is based on the applicant's income and ranges from zero to six hundred dollars per month. This HUD agency operates under Federal guidelines.

***Cultural and Recreational Services*** The Carteret County Public Library is located in Beaufort and is the only public library in the County, although the public has access to a privately-funded library in Morehead and the Community College library as well. The Public Library employs eighteen full and part-time workers and houses over 40,000 volumes.

The facility also maintains a bookmobile which makes rounds in outlying communities from Stella to Cedar Island three days a week, arriving in villages such as Atlantic at monthly intervals.

Although Beaufort does not have as extensive a community center as Morehead City, Carteret County Parks and Recreation operates the "Old Queen Street Gym." This facility offers basketball and weightlifting throughout the year and has occasional programs such as a summer camp for school aged children.

There is no senior citizen center in Beaufort, but seniors (sixty years and older) have easy access to the County's Senior Center located in Morehead City. Transportation is provided by the Center to elderly homes in Beaufort proper, as well as outlying areas such as the



community of North River. Seniors are transported to banks, grocery stores, doctors offices and for other necessities.

Beaufort also houses Carteret County Parks and Recreation Department. This county-funded agency has nine full-time employees who operate five large community parks dispersed throughout the county including Freedom Park in Beaufort. The department offers programs at various times of the year, such as swimming and tennis lessons, softball leagues for all ages, football, volleyball, basketball games and summer day camp. The Parks and Recreation Department is very important in a social sense to Carteret County residents, since its services are used at a high volume both locally and in outlying areas such as Sea Level and Atlantic.

The town has no public beaches, although part of Radio Island (a 240-acre island created in 1936 from dredging Morehead City channel) is informally used as a local hangout for swimmers, sunbathers and all-terrain-vehicle riders. The Rachel Carson National Estuarine Sanctuary, located within the Town of Beaufort extraterritorial jurisdiction, is a short boat ride from the waterfront, as are other portions of the National Seashore system.

The Beaufort Historical Site, maintained by the Historical Association, is a section of town comprised of restored homes, historic public buildings and a nineteenth century apothecary and doctor's office. Guided tours and occasional classes, workshops and events such as the mid-April "Public Days" re-enactments are offered (Nance and Greene 1992:208).

The North Carolina Maritime Museum commemorates maritime and coastal natural history with a variety of programs. A Small Craft Program focuses on the research and preservation of traditional boats. Summer Science School at the museum offers a variety of classes in maritime/ natural history to school-aged children. Coastal ecology classes are offered to the public at Cape Lookout at the old Coast Guard station. The museum-sponsored Wooden Boat Show draws participants from around the country. The Strange Seafood Exhibition draws large crowds willing to sample such delicacies as trout bladders and sea urchin eggs (Nance and Greene 1992:208).

The Beaufort-By-the-Sea Music Festival in late April showcases a variety of music from jazz and blues to cajun and gospel. This event is sponsored by the Business and Professional Association (Nance and Greene 1992:208). The North Carolina Symphony also visits Beaufort and Morehead for occasional concerts. By rural standards, Beaufort offers a variety of cultural events and facilities, but urbanites moving to the area criticize the lack of cultural opportunities such as ballet, opera, theater and films.

### 3.7.6.6 Local Government Issues

Before its urban renewal project revitalized the waterfront and historic district into a popular tourism attraction, Beaufort was what some called "a dying community." Since the urban renewal projects, however, local government has been faced with the new challenge of how to direct community growth and tourism.

Important infrastructure issues also face local government. For example, a thoroughfare plan would involve a new high-rise bridge from Beaufort to Morehead City. At the present time, Beaufort's drawbridge is lifted, stopping automobile traffic several times a day to allow the passage of large vessels. How and where to construct a new bridge have become concerns to local government authorities because a high-rise bridge could affect the amount of traffic that is directed through the town. A high-rise bridge would have to be over forty-five feet high to allow passage to a range of vessels; if the bridge is over sixty-five feet in height, however, it may require that auto traffic be rerouted around the Historic District thereby reducing tourism. The subject of annexing outlying communities into the municipality, a move that would increase the town's tax base, is also an important local government issue.

### 3.7.7 **Physical Infrastructure and Land Use**

#### 3.7.7.1 Infrastructure History

For much of its history, the town was cut off from the mainland and was accessible only by boat. At the turn of the century, most communication and transportation were still by water. Steamship lines ran from Beaufort to Baltimore, freight lines ran to Norfolk and merchant vessels hailed from the world over. Not until 1908 was a railroad built connecting Beaufort to Morehead City (Kell 1983:77). A bridge connecting the two towns was built in 1928 (Maiolo and Tschetter 1982:210). Once the bridge connected Beaufort to Morehead and beyond, the flow of people to and from the town grew. This development, an apparently increasing regional interest in the state's coastal areas and the town's urban renewal project in the early 1970's combined to attract many visitors to the area, furthering the need for new infrastructure.

#### 3.7.7.2 Physical Infrastructure and Related Issues

**Marine Facilities** There is one sizeable public boat ramp, with four launching areas, one small public ramp for small sailboats, two relatively new ramps and a dock. The latter two are maintained by the County Parks and Recreation Department (Nance and Greene 1992:243-245). The United States Coast Guard is based in Fort Macon (Atlantic Beach) to carry out marine rescue efforts for boaters in emergency situations.

Beaufort Township also has five marinas, two of which offer dry stack storage as well as wet slips. Three marine contractors offer dredging services, marine construction and other services. One business offers marine electric service and numerous companies offer marine supplies. There is one marine towing company.

***Transportation System*** Beaufort benefits from an adequate arterial highway system: the primary highway is US 70, from which one can reach the state capital in three hours (155 miles). The growing municipal airport is paved, lighted and offers charter service but no commercial flights. The nearest commercial airport is forty miles away in New Bern; it has three commercial lines and thirteen flights departing daily. The Beaufort/Morehead railroad has piggyback service. It is used by county industries and the Morehead City State Port Terminal. The Intracoastal Waterway, maintained by the U.S. Corps of Engineers, provides an important route for commercial barge traffic, fishermen and recreational boaters (Holland 1991:I-100-101). There is no public transportation system (i.e., no municipal bus line). Residents and tourists often rely on the two cab companies or the one automobile rental agency based in Beaufort. The Carolina Trailways terminal in Morehead City provides bus service nationwide.

Highway 70 and State Road 101 are the primary routes to the community. These can become heavily congested during peak summer months. Congestion frequently becomes "intolerable and poses a significant safety hazard, as well as a negative impact on the tourism trade" (Holland 1991:I-101). Both highway 70 and 101 into Beaufort have a drawbridge for Intracoastal Waterway traffic that, especially for Highway 70, causes significant vehicle backup. Highways 70 and 101 are in good condition, but 101 and portions of 70 are single-lane roads through Beaufort.

The average daily volume along Highway 70 through Beaufort in 1987 was 12,800 vehicles. This is about half the volume Morehead City experienced on Highway 70 during the same year. Highway 101 averaged about 4,500 vehicles per day in 1987 (Holland 1991:map 12). While Beaufort's traffic problem is not as severe as that of neighboring Morehead City, the town's residential, commercial and tourist traffic is increasing to a level greater than road system can adequately support.

***Water and Sewer Services*** The town of Beaufort operates its own municipal water system. The maximum daily capacity is 1,400,000 gallons. Elevated storage holds 400,000 gallons and ground storage holds 300,000 gallons. Unincorporated areas of Beaufort Township are served by the North River community water system, recently taken over by the Town of Beaufort. All municipal and community water systems obtain water from aquifers located in the Yorktown/Castle Hayne formations. Because of extensive groundwater withdrawal by the Texas Gulf phosphate mine in Aurora, the aquifer has been designated as a "capacity use area." This means that the use of water resources threatens to exceed the replenishment ability to the extent that regulatory control may be required (Holland 1991:I-96).

Beaufort, like Morehead City, owns and operates a central wastewater collection and treatment system of the contact stabilization type. The treatment plant is a secondary type aeration facility with a treatment capacity of 1.5 million gallons a day. The municipality is served by twelve pumping stations. Dried sludge is transported to the county landfill, while treated effluent is discharged into Taylor's creek (Holland 1991: I-97,98). Beaufort has a separate storm sewer system (N.C. Department of Economic and Community Development 1992).

***Solid Waste Disposal*** The municipality has a solid waste collection and disposal service that is regulated by the County Board of Health. Residents of the township of Beaufort living outside the municipal limits either contract private firms to pick up refuse or transport refuse to county operated "green boxes" which are periodically emptied into trucks and transported to the county's only sanitary landfill. The landfill, located in Newport Township is a county operated system that is the ultimate disposal site for all domestic and commercial waste. The landfill is adequate to handle the county's solid waste with no evidence of groundwater contamination. The county is working with Pamlico and Craven Counties, however, in designing a new landfill to serve the tri-county area (Holland:I-104).

***Energy*** Carolina Power and Light supplies the entire municipality of Beaufort with electricity. Carteret-Craven Electric Membership Corporation, a cooperative formed by people in unincorporated areas originally not served by Carolina Power and Light, supplies much of the non-municipal areas. Natural gas is not available, but fuel oil, coal and LP gas are available through private companies and distributors.

***Communications*** A county newspaper is published three times a week and is one of the major ways local information is communicated. There is one locally broadcasted talk radio station and one top-40 music station. A locally-based cable station broadcasts local commercials and public service announcements. Beaufort is also within range of a New Bern public radio station and within range of a public television station that broadcasts from Charlotte. Carolina Telephone, a Sprint company, provides local and long distance service.

***Infrastructure Issues*** Beaufort is the most important infrastructure issue. Although towns such as Morehead, Atlantic Beach and Beaufort have their own treatment systems, these are increasingly strained by the rapidly growing population of tourists and residents. Pressure mounts for County Commissioners to take initiative on a county-wide sewer plan. Another public facilities issue is the inadequacy of the drawbridge during peak season months, when traffic can be backed up throughout much of the town, while many commercial vessels and sailboats pass under the bridge.

Although Carteret County is largely rural, towns such as Beaufort and Morehead City have many of the amenities and services of urban areas due, in part, to the consumption associated with tourists and nearby military communities.

### 3.7.7.3 Land Use Patterns and Related Issues

**Land Ownership** The county owns the land on which the Beaufort-Morehead municipal airport is located (Holland 1991:I-59). The county or town owns land on which the following public facilities are placed: the Beaufort Fire Department, Beaufort Middle School, Beaufort Elementary School, Freedom Park, the county courthouse and administrative offices complex, the North River Volunteer Fire Department, the North River Community Center and East Carteret High School.

The North Carolina State Ports Authority owns Radio Island (Nance and Greene 1992:278). Cape Lookout National Seashore, including Shackelford Banks since 1986, is federally controlled (Nance and Greene 1992:262). Across Taylor's Creek near Beaufort is Carrot Island -- the Rachel Carson component of the North Carolina National Estuarine Research Reserve. In 1977, the island's owner planned to develop it, but Beaufort residents formed "The Beaufort Land Conservancy Council" and raised money in order to preserve it. With the help of the Nature Conservancy, \$250,000 was raised from businesses and individuals to purchase it and keep it in its natural state as state-managed estuarine reserve (Nance and Greene 1992:272).

**Zoning and Land Use** The land area of Beaufort township is predominantly forested "404" wetlands. The southern two-thirds of the township within Carteret County planning jurisdiction is zoned mostly as single-family residential. Portions of commercial zoning lay along Highways 70 and 101, intermixed with residential usage. Some industrial zoning exists along the Intracoastal waterway and north of the municipal airport (Holland:I-59).

Most developed areas outside the Beaufort planning jurisdiction are along Highways 70 and 101. All ten of the major CAMA development permits issued within the Beaufort township since 1984 have been along these roads, particularly in the Newport River shoreline area of 101 (Holland 1991:I-59). Also along Highways 70 and 101, there are significant areas of agricultural usage on some of the regions with better-drained soils.

## 3.7.8 Social and Cultural Characteristics

### 3.7.8.1 Sociocultural Aspects of the Community

**Physical Appearance** If one looks past the gift shops, restaurants and marinas along the waterfront, one may get a sense of Beaufort almost out-of-time. Across the creek is "Carrot Island," part of the Rachel Carson Estuarine Reserve. Wild ponies are frequently seen on its sand dunes and in its shallow waters. The island is covered in myrtle and yaupon bushes, ground cherries and cat briar. Parts are cross-cut by slim, twisting channels of water. Beyond Carrot Island is Shackelford Banks and the Atlantic Ocean. The outlying areas

opposite the Beaufort waterfront are comprised of large expanses of marsh, woodland, farmland and meadow.

Once one arrives in town off the drawbridge and enters the heart of Beaufort (the historical district), the streets get smaller and shady. They are symmetrically organized and the houses are orderly; white houses with double porches and picket fences are common. Beaufort is neat and clean, with everything seemingly in its place. Many houses, in and outside the historical district, have a plaque declaring its history. The houses invite photographs and close scrutiny. In warm months, it is common to see droves of tourists wandering the streets, reading plaques, visiting the Old burying ground and speaking to the Historical Society workers dressed in period clothes of long dresses, knickers and caps.

Beaufort's historical "quaintness" wears off as one travels east toward Atlantic Veneer and the menhaden factory. On Ann Street (one street from the waterfront) two-story, double-porched houses give way to small, one-story, company-style houses built during World War II. North of the historical section, across the railroad tracks, is the Black section of Beaufort comprised of cottages, churches and small stores. Highway 70, which traverses Beaufort on the way east to the Cedar Island Ferry, bisects the Black section of town. East of the historical section near the menhaden factory is "Lennoxville," a small, secluded community. Lennoxville appears as a small Atlantic: curvy roads contain houses of all shapes and sizes, most appearing fairly aged. It is inhabited largely by commercial fishermen, including active and retired menhaden captains. A sign reads: "Caution, old fishermen crossing."

Front Street, which borders Taylor's Creek and comprises part of the historical district, is crowded with restaurants and shops to the west, then stately historical mansions as one moves east toward the menhaden factory, then more modern homes and finally apartment complexes next to the fish meal plant.

*Living in Beaufort* Although the population is smaller than Morehead City's and is growing less rapidly, Beaufort's residents are increasingly diverse in class, ethnicity and cultural background. In that respect, the town is becoming similar to Morehead City. Beaufort differs, perhaps, in the high concentration of wealthy families that are buying historic homes in the historical district downtown and on the waterfront. These homes were inhabited by "old money" families and, although some of these continue to be inhabited by descendants of these "first families," the trend is for many to be sold to wealthy retirees or investors. This has contributed to increasing property values and the flight of middle or low income residents who can no longer afford to live in the downtown area. In effect, Beaufort is turned "inside out"; many descendants of the early eighteenth and nineteenth century inhabitants now live outside the historical zone commemorating their ancestors, unable to afford its authenticity.

The old money families are also "old name" families who are extremely proud of their ancestry and their history as part of Beaufort. Many continue to be powerful players in local politics and, to a lesser extent, in the Historical Association. Most Beaufort natives are not

wealthy. They live within the town limits in modest homes or outside the town limits along rural roads or in small subdivisions.

Long-term residents, whether wealthy or not, have a proclivity for spending long afternoons or evenings, telling well-worn tales of friends, relatives, fishing mishaps, childhood memories, childhood days and so on. Storytelling is honed to a fine craft and sometimes one person would reprimand another, after a story was told for "not telling it right" and then would proceed to re-tell it.

Outsiders moving to Beaufort appreciate the village-like atmosphere. People comment on the casual lifestyle of the town and its perceived safety -- some brag that they do not lock their doors and leave keys in their car ignition. The small size of Beaufort proper is appreciated and people soon learn that they can walk or bike-ride virtually everywhere in town.

For Beaufort natives, many feel ambivalent about Beaufort proper. Some natives like to refer to the pre-1970's before the Urban Renewal campaign that transformed the town to what it is today. A Beaufort fishermen commented:

They said they wanted the waterfront to look old-timey, fix it up to look old. Well here's the joke: Beaufort never looked like that. Downtown waterfront used to be a place of menhaden steamers, trawlers, fish houses, grocery stores, fuel docks. Now it's all gift shops, restaurants and yacht marinas. They don't want to see us. We're not allowed to tie up there anymore, and commercial fishing is what built this town (Garrity-Blake, in press).

Some natives feel their town has been "bought out" from under them and is controlled by outside interests. Several commented that they no longer knew anybody downtown, in stark contrast to earlier decades when everyone frequenting the general stores were Beaufort natives or villagers from nearby areas like Harkers Island or Smyrna who boated to town to shop on Saturdays. An elderly Beaufort native whose family worked in the menhaden industry remarked:

The people that own these beach houses, they're almost thinking of (menhaden fishing) as an invasion of their privacy. It's like they're offended to see people making a living. . . (they've) made their money in Raleigh or upstate or someplace else (and) want to put (fishermen) out of work just so (they) can have a pretty beach (Garrity-Blake, in press).

***Environmental Values and Perceived Threats*** Environmental values and perceptions about potential sources of change to the environment vary widely in Beaufort. Two groups with particularly dissimilar perspectives are scientists who work at either the Duke, Chapel Hill,

or National Marine Fisheries Service marine laboratories and local fishermen. Scientists tend to see the environment as a biological system that can be adversely affected by the actions of human beings. They also see it as predictable, explicable and subject to positive intervention based on their knowledge. This is in contrast to the view held by many native, commercial fishermen, who see the environment as almost a moral system governed by Mother Nature and God. For fishermen, man's place is within this system, to make use of the resources while living in deference to the mystery of nature that can never be dissected and known. One retired fishermen explained:

No man can predict what nature -- not when it comes to fishing on the water . . . fish go by the weather. And man can't predict the weather just a week ahead of time -- 'cause I think it's all connected . . . a shift of wind . . . all fish, shad and everything, time and the weather has a lot to do with it (Garrity-Blake, in press).

Whereas biologists gather their knowledge from tests and experiments, fishermen might gather their knowledge from signs in the natural world. One captain described such signs:

Whenever you see those horses coming on this side of the island, the wind will shift -- I betcha. I've always heard old timers say, and I've found it to be true, first day of a northerly wind (the fish) don't show good. . . But you know the fish are there, they ain't just disappeared. . . I don't know why they (hide), they just have some way of knowing the weather before we do . . . there'll be . . . fish showing and all of a sudden, an hour later, there's none. I mean the pelicans can't even find them. It's amazing (Garrity-Blake, in press).

Fishermen often view humans as being inextricably part of the natural system, not outsiders who must be fended off from ravishing the natural world, but as another God's creature who lives by living off other living things. For fishermen, the "balance of nature" is not necessarily maintained by protecting nature from people. Rather, fishermen play a part in keeping the balance of nature by exploiting the resources. Fishermen in the menhaden industry believe that if they were not able to harvest the prolific fishery, the "world would be overrun" by menhaden because the population would not be kept in check. A fish house dealer explained:

If you don't go to catching these menhaden, they'll probably destroy other fish. They have to eat, and they eat eggs and the spawn of other species in the water. So you go and do away with the industry so that somebody is not going to take them, you're going to run into other problems (Garrity-Blake, in press).



The relationship of fishermen to the natural world is so connected that some fishermen question their own moral standing when fish is scarce. A menhaden captain reflected on a season when prices for fish meal were so low the boats were forced to tie up. Although he understood the market situation, he nonetheless questioned his own life in regard to his inability to fish:

Last summer was bad, when we couldn't fish. Went crazy, nothing to do. And them (menhaden) would haunt me . . . there'd be more fish'rn ever been. See 'em? Go right there in the boat, get right up there in 'em, just drift, look at 'em, my mouth'd be watering. My gracious, you just get so down and out, so depressed and stuff, and gosh, I reckon in this world . . . fish here close and we (can't) fish. I'm sitting there -- what am I, why am I, am I living wrong, or doing something wrong, or what (Garrity-Blake, in press).

Fishermen and non-fishermen agree that overfishing can harm the environment. Watermen are known to say "If you get the nits there grows no lice," making the point that if nursery areas are destroyed or juvenile fish caught the stocks will dwindle. Few Beaufort residents, native or non-native, disagree on the importance of water quality to the fisheries environment. A good illustration of this is the public hearing held by the county commissioners in Beaufort in the spring of 1983. This hearing looked at a proposal to loosen the restrictions on building in areas classified as wetlands. The hearing was attended by a roughly equal number of residents who fished commercially, who were retired, who worked at one of the marine laboratories and who were members of environmental interest groups. All those in attendance who spoke, save those sponsoring the proposal and an economic development official, were united in opposing a proposal that would add to the decline of water quality and threaten the natural ecosystem.

***Major Changes of the Last Decade*** Probably the most significant change that has occurred in Beaufort in recent decades is the urban renewal campaign of the early 1970's that transformed the waterfront from rickety fish houses commercial vessel dockage to upscale marinas, restaurants and boutiques. Although many old timers and fishermen express disdain for a downtown that they perceive as being somehow artificial and exclusive. Few would argue that the transformation has not been an economic boon to Beaufort. A business owner in Morehead City, complaining about "poor planning" on the part of city decision-makers, stated that "the renewal is the smartest thing Beaufort ever did. Morehead should be so smart."

The most recent physical changes that occurred in Beaufort were the dredging of Taylor's creek in the mid 1980's that left an unsightly dredge spoil on large portions of Carrot Island, and the still ongoing construction of a new jail next to the county courthouse. The dredging in all was welcomed, for the relatively slim passage of Taylor's Creek had steadily narrowed, and it was not uncommon for larger boats to run aground just shy of the creek's

center. It also presented a problem with large commercial vessels and yachts that had to find their way precariously, past anchored sailboats on one side of the creek and docked sailboats on the other. Once the dredging was completed, however, the view across the creek to Carrot Island had changed: much of the greenery on sand dunes had been buried beneath hills of grey sand dumped by the dredge. Those who complained were assured that the vegetation would eventually return and Carrot Island would look aesthetically pleasing once again. In fact, this process has begun to happen. The new jail downtown is the closest thing to a high rise that Beaufort has. Although there is likely much support for the new addition, the few letters to the editor of the local paper have been negative. The jail has been referred to "a hotel for prisoners" and a "waste of taxpayers money."

***Population Flux and Factions*** In Beaufort proper, the population has experienced slow growth in the past five decades, compared to many booming municipalities of coastal North Carolina. From 1980 to 1990, the population actually dropped by eighteen people. The reasons for this are two-fold. First, there is limited room for new construction within the town limits of Beaufort. Second, native and non-native residents alike tend to live outside Beaufort city limits in one of the many subdivisions of the township or along the main highway. Increasingly, residents within the town limits are well-to-do outsiders who can afford to purchase houses in or near the historical district. Many natives continue to live in the eastern portion of town near the fish meal plant and the northern portion of town in the Black neighborhoods. There are more Black residents living within the town limits than outside the municipality.

***Socioeconomic Status*** Between the well-to-do "old name" families of Beaufort and incoming investors, scientists and retirees, there is a growing number of well-off families in the township. Some of these families support the arts, particularly the North Carolina Maritime Museum and the Beaufort Historical Society. There is also a growing number of middle-class and poorer Black and white families within Beaufort Township. The blue-collar workers are finding fewer job opportunities with the passing of time. The closing of several manufacturing plants within the last decade has forced many to depend on social services. Low-income housing is available in Beaufort, and the county Health Department offers programs such as WIC and Baby Love. The organization known as Habitat for Humanity has built new homes for some destitute families of Beaufort. Not all low-income residents are out-of-work locals; the waterfront of Beaufort attracts seafaring drifters who may live aboard their boats and hang around for months or years, seeking "pickup" jobs until they save enough money to move on.

***Seasonal Differences*** There is a marked difference in Beaufort between the warmer months and winter months. Warm months, from Memorial Day to Labor Day, attract the highest number of tourists. During these months, shop and restaurant owners are happiest, since business is brisk. Traffic is slow-moving and parking scarce. Special events occur, such as the Old Homes Tour, a historical re-enactment, the Arts Coalition Show and the Beaufort Music Festival. The fishing season is busy. Large commercial trawlers, small commercial skiffs and steel menhaden vessels are commonly seen entering and exiting Beaufort Inlet.

The waterfront bars are packed at night with college students from Duke and Chapel Hill marine summer programs. A group of people who might be called non-native locals -- boat-loving people who sailed to Beaufort, fell in love with the town and decided to stay, studiously avoid the waterfront bars in the summer months because of the "tourist invasion."

In winter months, the bars, particularly "Backstreet Pub," are almost exclusively filled by these locals who hail from a diversity of faraway ports, sharing a love of boats, the sea and the community found in a waterfront bar in the dead of winter. Some pass the time playing chess or checkers, reading paperback books made available through an "exchange" shelf, or sipping coffee while sharing tales of their seafaring adventures. Several of the live-aboard people who normally anchor out in Taylor's Creek free of charge and row in on a dinghy, move their boats to the docks for a reduced winter rate.

Winter or summer, commercial fishermen and other native-born residents of Beaufort rarely frequent the bars popular among either college students or live-aboard boaters. Rather, they pass their time away at a local pub known as the Royal James Cafe, or "Vic's," as it was once called. Here locals and some non-locals engage in pool tournaments or partake in inexpensive food and drink. Some fishermen feel that the "Dukey crowd" or the "blow-boat crowd" are snobbish. A boat person described the locals as "okay on a superficial level, then you get to a point where you can't hold a conversation with them."

Diverse types of people live in Beaufort. There are persons of different ethnicities, different income levels, different age groups and different backgrounds. Whether one is a physician living in a restored historical home who sponsors art openings, a wayward boat person, a member of an old-name family with local political power, or a Black laborer for Atlantic Veneer, residents appear to appreciate the village-like atmosphere, its sense of history and its natural surroundings.

***Local Fish Harvesters*** Commercial fishermen of Beaufort range from employees at the capital-intensive menhaden plant to independent fishermen with small skiffs and commercial gear. Beaufort fishermen, like Atlantic fishermen, have a strong sense that their "days are numbered" and that recreational interests are "taking over." They tend to view sportsmen as both childish in wanting "all the fish to their selves so's they can play," yet unnervingly dangerous because of their political power. These Beaufort fishermen comment:

Sports fishermens gonna stop this business . . . they got too much control. And the fishermen, you can't get them together. And the sports fishermens are together. We don't catch their fish. But they don't believe it. They can get anything they want to. And they got a foothold in now, fish a certain time, fish so far from the beach, keep adding a little more to it, a little more . . . and then you hang it up (Garrity-Blake, in press).

And ah, the old fella I used to (fish with), he's dead now, I recall him saying sports fishermen was going to ruin it you know for the commercial fishermen. Just so many of them . . . I don't know, they want the whole ocean to their self (Garrity-Blake, in press).

These opinions might be said to stem from the economic shift from manufacturing, with its emphasis on production, to service-based business with its emphasis on consumption. A fish factory foreman's wife complained:

It makes me sick to my stomach what they're building now . . . everthing's getting to be living home sites. Everything can't be residential, who's doing the working? You got to allow for business, for industry -- they say that sports fishing and tourists are worth such and such millions -- is that industry? What does it produce? Nothing! These newcomers live here but they don't work here . . . sports fishing, that's outside money comes in, outside money goes out, right back to Raleigh. They don't contribute a thing to the economy of Carteret County. I don't know what's going to become of it all. But like I've always said, greed will destroy the world . . . was it Khrushchev? He was right. Americans don't need to worry about Russia. It's us we have to worry about. We'll destroy our own selves (Garrity-Blake, in press).

Those who grew up in families that fished, farmed, worked textiles, or cut lumber struggle to make sense of the world of recreation and services. A menhaden crewman, now deceased, reflected on this change while gazing across his yard at an overgrown field:

Farming's like fishing. You take most of the farmers that gone out of business, now they're building homes and supermarkets and stuff on the land where they used to farm . . . we used to plant beans and cabbage and corn, white potatoes, beans, they ain't doing it no more . . . cabbage and stuff like that, not much of that going on. Sweet potatoes, ain't none of that going on. It don't make sense. And you gotta have the stuff to live. People got to eat . . . I don't know what we'll do -- starve to death, I reckon. Same thing with fishing, got to have this stuff. (But) they don't want to smell the (menhaden) factory. You're going to have to close it down. It's bad (Garrity-Blake, in press).

**Property Values** Beaufort has some of the most valuable property in the County, particularly that which is located on Taylor's Creek and in the historical section of town. Although values have rapidly risen in the past decade, some incoming residents feel that the land is relatively cheap. One second-home owner from Baltimore purchased land and built a large house on Taylor's Creek. He reported that:

"the soaring price craze hasn't hit here like it has up North. Beaufort hasn't hit that point yet where it just goes off the graph. But it will. That's one reason I wanted to make this investment."

**Natives Versus Newcomers** Many of the current social disparities found in Beaufort can be attributed to changes in the economic base which has occurred since about the 1970's. Formally geared to extractive industries and manufacturing, the economy has swung to a predominantly service-based one of tourism and recreation. With this has come rising property values and higher taxes. In such coastal resorts, many things have become a commodity. In Beaufort's case, even its own history is packaged and sold to tourists. Some of the more resentful feelings that native-born residents from old name families hold toward tourists, tourism promoters, developers and sport fishermen, stem from feelings that the marketability of local history and culture is forcing them out of the area of their heritage. They feel that the "heart" of Beaufort, including grocery stores on the waterfront that extended credit and served as a general meeting place, was bought out, torn down and replaced by "fakery:" tourism-gearred restaurants and shops. As "Beaufortness" becomes increasingly desired, the average Beaufort native can no longer afford to live there.

However, there is much ambivalence toward tourism. Many native residents have profited from the tourism boom. Some have businesses such as fish markets or restaurants, others have sold their property at inflated prices. And just as some natives are quick to categorize others as "Dingbatters" and "Dit Dots," many work with non-natives and see them as persons, not categories. Therefore, a native might rail against the "Blowboaters," but when asked about specific people will answer, "Well, he's okay. Her? Well, she's different . . . " This same process occurs with non-natives in regard to the "Hoi Toiders:" as categories, there are differences, but as individual acquaintances, barriers between people seem less clear.

For Beaufort natives, the more generations one can document and the farther back your family goes in Beaufort or at least in the county, the more "native" you are. There are about a dozen family names which pervade the area. It is typical to hear a native make statements such as "Now, mama was a Taylor. Her mama was a Mason. So I'm a Davis but I got Taylor and Mason in me too on my mama's side." Although there may be, say, fifty families of Smith, many on the same street, natives are very particular about who they are kin to and who they are not. Few family names are limited to Beaufort; they can be found throughout the county and, in some cases, the region. Some associate certain names with

high status, others with "commonness" or "low-lifeness." Beaufort natives are known to associate whole communities with moral attributes, or lack thereof: "Oh, what do you expect, he's from \_\_\_\_\_."

If one is born in Beaufort but has parents who moved in "from off," he may be a local but does not have the same status as those with Beaufort family names, for at least those with the names.

Just as the Beaufort natives tend to be ambivalent about the merits of tourism, some non-native business owners share that ambivalence. Beaufort tends to attract "politically correct" thinkers who are aware of the marginalization of many native peoples. One shop owner advocates "socially responsible" business practices; she abhors the idea of business people moving into an area, profiting off the area and giving nothing back to the community.

**Religion/Churches** Considering the township's population of less than 7,000, the town has a variety of churches including five Baptist, three Free Will Baptist, two Christian, one Jesus Christ of Latter Day Saints, one Episcopal, one Jehovah's Witness, two Methodist, two Pentecostal Holiness and one Presbyterian. When combined with the option of attending religious establishments in Morehead City or in the Downeast communities, the diversity accessible to Beaufort residents is substantial.

**Clubs, Service Organizations, and Other Voluntary Associations** Civic organizations such as the Kiwanis Club contribute to the community by organizing and involving members and other citizens in local activities and events. For example, the Kiwanis Club helped organize the Beaufort Christmas parade to help encourage community pride and people out having fun. Other service organizations active in Beaufort are the Lion's Club, the Rotary Club, the Jaycees, the Masons, the Elks, and the Shriners as described in the Morehead City section of this report.

A number of other social service-type organizations are active in Beaufort, including Habitat for Humanity, a Christian organization which builds homes for the underprivileged, Alcoholics Anonymous, Caring Connections (a cancer support group), the Diabetic Support Group, the American Red Cross, the Carteret Literacy Council, Disabled American Vets, Hospice of Carteret County, the Carteret Senior Center and the Station Club (training and finding employment for handicapped persons).

Organizations for the arts active in Beaufort are the Carteret Community Theater, the Carteret County Arts Council, the Carteret County chapter of the North Carolina symphony and Carteret Writers.

Probably the most active and important organization is the Beaufort Historical Association. Organized in 1960 to celebrate the town's 250th anniversary, the BHA oversees the restoration of historical structures within the "Beaufort Historical Site" and within the historical district (Nance and Greene 1992:441). The organization has moved old structures

to the historical site, which can be toured with a guide in period dress for a fee. The Historic Preservation Commission is charged with reviewing any proposed changes of sites within the historical district.

***Interest Groups*** Two prominent environmental interest groups are the Carteret County Crossroads and the Coastal Federation. Carteret County Crossroads is concerned with the protection of wetlands, water quality and coastal wildlife. The organization provides information to its 500-plus members on environmental issues of critical concern to Carteret County. Membership in the organization, which is open to anyone who pays the five dollar yearly fee, is from all sections of Carteret County. The group tries to maintain a strict apolitical stance and present their information on basis of science and fairness rather than emotions. It is an organization managed by volunteers and includes twelve board members who meet once a month to divide into groups and focus on different environmental issues. Board meetings also are open to members and the general public. Issues the organization has focused on include: Atlantic Beach wastewater, offshore oil and gas exploration and development, the ammonia facility at the port (proposed by Texas Gulf), Radio Island (keep open to public access), military actions (low-level flights, dedicated airspace, electromagnetic warfare training), permits for marinas and other issues. Crossroads' activities include reviewing Environmental Impact Statements, attending public hearings, writing letters to public officials, sending newsletters to members, having an annual meeting that all members are encouraged to attend and keeping in contact with other local and national environmental groups (e.g., the Sierra Club and the North Carolina Coastal Federation).

The North Carolina Coastal Federation is based in Swansboro but is active in Beaufort. It promotes the involvement of the community members in government decision-making as it relates to the coastal environment and economy (North Carolina Coastal Federation 1992). The organization is interested in protecting the economy, managing resources properly and maintaining a positive approach to the future. They publish and distribute quarterly newsletters, issue-related periodic updates and alerts, bumper stickers and books/guides such as *A Citizen's Guide to Coastal Water Resource Management*. The Coastal Federation has approximately 3,000 members mostly from coastal North Carolina, but some are from as far as California (North Carolina Coastal Federation 1992). Yearly membership fees range from \$15 - \$500 a year. The Carteret County Clean Committee is based in Beaufort. This has a "Keep America Beautiful" program, which promotes clean waters, beaches and the management of solid wastes.

Community-developmental and business-promotion interest groups, based and/or active in Beaufort include the Beaufort Historical Association, Beaufort Business and Professionals and the Downeast Chapter of the American Business Women's Association. The Beaufort Business and Professional Association began in 1980 and has grown to include about 100 members (primarily doctors, attorneys, and other professionals in the area). The Association's purpose is to promote economic growth and orderly development, to preserve the character and heritage of the town, to facilitate communication between the Association and Government, to support and cooperate with all civic groups, and to promote community

pride in Beaufort. The association has monthly meetings open to the public and they produce an informal monthly newsletter. The Beaufort Business and professional Association is not so much a politically-influential body as it is an educational body intent on informing its members on all sides of issues, although the Board has taken sides on issues in the community (Beaufort Business and Professional Association 1992).

### 3.7.8.2 Social and Cultural Issues

A variety of issues is of importance to the community of Beaufort. The following is a summary description of issues mentioned frequently by key informants.

***Environmental Protection*** The environment was described as being extremely fragile and was in danger of harm under the heavy hand of humankind. Overdevelopment was seen as a prime culprit, causing problems such as fresh-water runoff, which degrades the water quality and harms shellfish. Most informants saw the need for a better balance between the environment and development/economics, and they perceived lack of foresight on the part of town and county leaders as the main reason for current problems. On the other hand, informants named "protection of the environment" as a problem, seeing it as over-regulated (particularly areas designated as wetlands) and as having seriously curtailed growth. One informant saw the increased competition for resources, resulting from increased tourism and population, as a primary force changing the nature of the community:

Tourists clog up the roads with cars. The prices of property have increased along with the population, and there has been a decline in the sense of community as resources have become more limited . . . competition [for the resources has increased], and humanity changes.

***Water Quality*** The Open Grounds Farm/Atlantic Beach controversy (see subsection 3.6.6.6) and the attendant problem of declining water quality, also was seen as an important issue. Since a public hearing occurred several weeks before this interviewing process, the issue was fresh on many residents' minds. It points to a pervasive concern of coastal residents; how can growth be controlled in such a way as to accommodate increasing numbers without jeopardizing the environment that attracted people in the first place? The Open Grounds Farm/Atlantic Beach sewage treatment controversy only highlighted an underlying resentment of residents that "richer" towns such as Atlantic Beach could "dump on poorer towns" in rural Downeast areas.

***Job Availability*** Many felt the ideal solution to the lack of employment in the area would be more small, non-polluting businesses, such as textiles or computer chip manufacturing that hired fifty to one hundred people, rather than "big polluting industries that come here, degrade the environment, and then leave, laying hundreds off." Although few felt tourism could or should be depended on entirely, others felt tourism should be further developed:



The Urban Renewal Project was effective, but there should be more of a united effort to promote and control tourism. The county commissioners don't believe in tourism as the most powerful economic force, and they would like to keep Beaufort like it is, but tourism is the lifeblood of the area. We don't have a lot of big industry . . . it's become a bedroom community. A lot of new people have moved here too and 99.5% of the newcomers have brought in talent.

Several informants expressed concern for the increasing numbers of "displaced fishermen who are left with no opportunity now that commercial fishing is gone." Others worried about the lack of job opportunities for rural Black residents since many of the manufacturers closed down or laid people off -- "So you get young and old with nothing to do and no money, and an increase in crime and drug use." Many informants perceived a Catch-22 for Beaufort and surrounding areas. On one hand, new industry was desperately needed to support a growing population who lived here, and on the other hand, the coastal infrastructure and environmental restrictions discouraged new industry from relocating to the area:

New industry won't come in . . . because it is too expensive and there are no adequate water or sewer systems. The sad irony is that there is no way for manufacturing industry to come in with higher paying jobs, so there is nothing for the displaced fishermen.

***Population Growth*** A litany of problems was named in relation to coastal development: the destruction of primary nursery areas by water pollution and runoff, the degradation of beach dunes and turtle nesting grounds by condominium development and four-wheel-drive traffic, the problem of waste treatment, the prevalence of marinas and the associated problems of water quality degradation, trash on the roadsides and beaches and so on. Many informants attributed the problem of planning for growth not to the growth itself but to the planners. Some informants anticipate a lack of foresight and direction on the part of town and county decision-makers, which they claimed hurt both the economic growth of the area and the environment:

Incompetent local government--municipal and county--is a problem . . . it is too much a product of self interest rather than community interest . . . the local government is resisting change instead of controlling it. This has a backlash, because it [change] happens anyway, so they could do something, but they're now doing nothing. They could help the economy by participating in the process of change . . . there is too much unplanned development . . . We're going to get raped if somebody doesn't take control of it.

**Education** The perceived quality of the local public schools is an issue. In stark contrast to Atlantic residents who expressed great pride in their school and feared the middle school grades would be taken away, Beaufort informants felt that the quality of education in the school system was mediocre:

Education is poor. I feel like the kids get more education at home . . . with CAT scores, North Carolina ranks fiftieth out of fifty States . . . Potential clean industries don't come here because of [the low] skill base.

One resident felt so strongly about the inferior quality of Beaufort schools she home-schooled her children this year. But she expressed loneliness because "most of the other home-schoolers in this county are "holy-roller Christians" and I just can't relate to them and vice versa . . . so I have no one to talk to." Most informants felt that some of the reasons schools were poor were "lack of resources, lack of decent pay for teachers, lack of foresight on the part of the school board." Two teachers felt that their attempts at creative teaching were crushed by a non-progressive administration; one former teacher is currently planning to start a non-denominational private school in the fall of 1993: "I don't like the elitism associated with private schools. I've always been a public school person. But I'm also a realist." At a public meeting to introduce the concept of the independent school to the community, all those present were newly-arriving residents looking for alternatives to county schools.

**Natives versus Non-natives** One general issue that was quick to surface in Beaufort is the tension between native residents with a family history in the community and non-native "Dingbatters" who have moved in from elsewhere. Some long-term residents complain that their community has been bought out from beneath them and is controlled by outside money, while newly-arriving residents complain that natives are provincial and prone to anti-growth/anti-environmentalism. One native business owner expressed his frustration at outsider encroachment and control:

People move into the area because it's informal and there's not a lot of restrictions. Then before you know it, they try to restrict the locals on doing everything they have done for years. And the sport fishermen come down here like they know what they're talking about, raising hell about this and that . . . the politicians fall for it. Doesn't matter if the sports guys are dead wrong.

This issue takes form in local politics, fisheries controversies, town planning conflicts and so on. This non-local informant is sympathetic to the position of natives in a rapidly changing community:

I think it was a good thing that the local government had lowered the property in the tax slightly, because the tax burden was hard on some of the people that had been around here the longest. There needs to be a delicate balance between the relationship of the natives and the non-natives in the area. Preserving the heritage and traditional qualities of the town is important, and the natives are a big part of that.

A long-term resident informant felt that the main problems locals had in relation to newcomers were economic inequality and lack of fair work opportunities in the same area:

The fact that people can't pay their taxes shows that the economic base of the area needs improving. People living here have depressed lifestyles and there's a weak base for high-paying jobs.

### **3.7.9 Summary**

Beaufort increasingly relies upon its historical maritime background to draw tourists to the area. This was central to the process of re-gentrification that occurred in the 1980's. The town also maintains its traditional ties to commercial fishing, the menhaden fleet being an important industry in the area. A key issue of concern for many residents is the ability of local government to respond to problems in a coastal zone that must support growing permanent and seasonal populations. Variation in perspective on important issues is apparent. Many residents were disturbed by recent decisions to lower taxes. While this was designed as a means for relieving some of the burden on the working class and was generally supported as such by that sector, others felt this could sacrifice the quality of local education and plans for conserving the environment. Some residents noted differences between wealthy newcomers who could afford to pay high property taxes and lower-income residents who were often being forced out through inability to meet tax demands. Generally, the concerns of middle-class, blue-collar residents revolve around jobs and the economy, while well-educated white-collar workers focus on the environment. Other residents have a mix of perspectives. Commercial fishermen, for instance, are concerned about water quality and other environmental issues that affect their livelihood but many also support lower taxes.

## **3.8 MOREHEAD CITY**

### **3.8.1 Introduction: Morehead City and the Case Study Communities**

Morehead City is the largest and most economically diverse community among the seven CNCSS study communities. It is also the fastest-growing municipality in Carteret County. The current population is 6,046. Morehead also is home to one of the state's two industrial ports and is adjacent to Atlantic Beach, one of North Carolina's major resort communities.

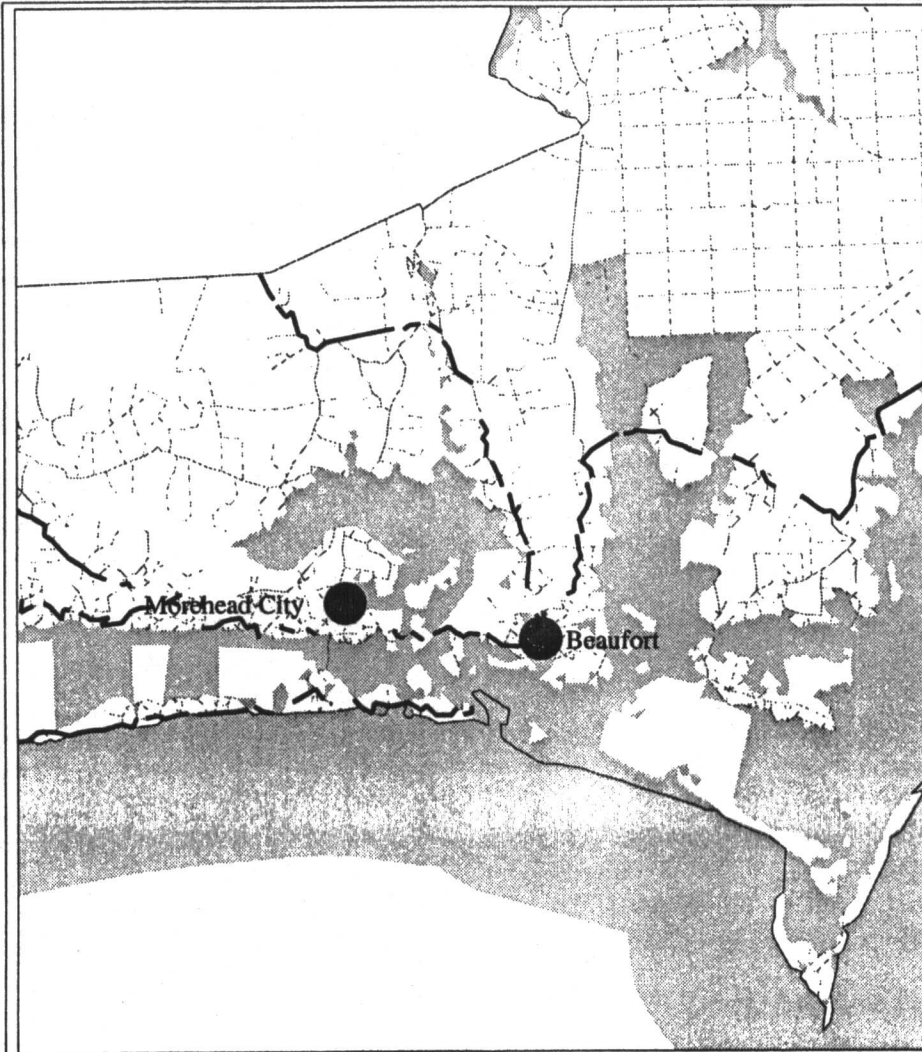
Morehead City was chosen for study, since it will be a base for exploration-related facilities if exploration goes forward and will be a candidate for an OCS landfall facility should any OCS development occur. The town also has significant seasonal and permanent populations of ocean and coastal resource users potentially affected by OCS-related activity, including an active commercial and recreational fishery in the inshore, nearshore and offshore waters of North Carolina.

### **3.8.2 Physical and Biological Environmental Overview**

The city is situated on the mainland area immediately behind Bogue Banks, a barrier island in central coastal North Carolina. The area is generally flat and swampy. The community is bordered by the Newport River (part of the Intracoastal Waterway) to the north, the town of Beaufort to the east, Croatan National Forest to the west and Bogue Sound and Bogue Banks to the south. Bogue Banks contains the resort towns of Atlantic Beach, Pine Knoll Shores, Salter Path and Emerald Isle.

Morehead City is cooled by prevailing southwesterly breezes in summer and maintains an average summer temperature of seventy-six degrees. Winter temperatures rarely fall below thirty-two degrees and average forty-five degrees. The average annual rainfall is 53.8 inches. Snowfall is minimal, with an average annual accumulation of 1.5 inches (Carteret County Economic Development Council 1992a:10).

Perhaps the most significant geographical feature of the area is the deep water passage at Beaufort Inlet. The inlet has been a relatively stable entry point to and from the Atlantic since the area was settled in the eighteenth century. Jetties were built in 1881 to help stabilize the shoreline around the inlet. The Army Corps of Engineers currently maintains the depth of the passage to a minimum of thirty-five feet (Young, 1983:200), which allows large container ships and other vessels to enter the port at Morehead City.



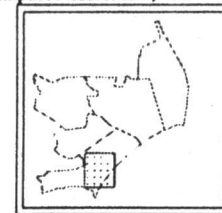
# COASTAL NC STUDY AREA BY COMMUNITY

## Legend Explanations

- Case Study Communities
- County Boundary
- ▨ Water Body
- Land Mass
- State Hwys
- County Roads
- Local Roads



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In the past, the economically important natural resources in the Morehead City area included timber, wild game and fish. The region remains an important source for pulp wood, and hunting continues as an important recreational and subsistence activity in Carteret County. The presence of abundant living marine resources in the Morehead City area, however, are most important to the economic health of the region. The area is well-known for its excellent fishing and seafood and draws many thousands of tourists annually for this reason.

### 3.8.3 Community Chronology

The ancestors of some Morehead City residents, especially those in its "Promised Land" section, lived along Cape Lookout, Shackelford Banks, Core Banks and Portsmouth Island in the eighteenth and nineteenth centuries. These "Ca'e-bankers" kept cattle, sheep, and subsistence- fished and hunted. The most famous of these communities was "Diamond City," a whaling community on Shackelford Banks, with a population of 500 in 1897 (Harkers Island United Methodist Women 1990:1,3). After their communities were devastated by hurricanes in 1896 and 1899, the Ca'e-bankers moved to Marshallberg, Broad Creek, Salter Path and the "Promised Land" in Morehead City. Other early settlers were of European descent from upstate who followed the railroad to this newly settled port town in the mid- to late-nineteenth century (Morehead City Women's Club 1982). The Black sections of present-day North Morehead City were instrumental to the town's late-nineteenth and early-twentieth century growth, providing labor for many of the sawmills, grist mills, fish packing houses, loading docks and so on. Although documentation is lacking, local opinion says these Black residents were ex-slaves or descendants of slaves from regional plantations who arrived in Morehead and Beaufort to seek work.

Morehead City was incorporated in 1861 by Governor John Motley Morehead, the 20th governor of North Carolina. Governor Morehead thought the area, then known as Shepherd's Point, was preferable to Beaufort as a deep water port. Shepherd's Point had become a hub of development and trade after the completion of a railroad spur from inland areas in 1858. By 1861, numerous homes and businesses had been built. Some of the earliest structures included mercantile buildings, hotels, a post office, a Chinese laundry and a doctor's office (Morehead City Women's Club 1982:7,21,30).

The railroad and the port were instrumental to the growth of Morehead City. "Pier Number One" was built around 1857 at the site of the present port. The pier included a 90' X 164' warehouse. Lime, salt and ice were common commodities then, as was salted fish. Area "fishmongers" shipped several boxcars of their products each week from Pier Number One, giving the railroad its local nickname, "the old mullet line." Processing of menhaden fish oil and guano began in Morehead City in 1911. Factories were first built on Bogue Sound near the present site of Carteret Community College, a good distance from the tourist hub. The menhaden industry employed a large number of laborers who worked as ship's crew and in

the factory, until the companies closed in the early 1970's (Morehead City Women's Club 1982:42-43,51,116).

Morehead City also supported a thriving tourist business in its early years. Visitors could easily reach the town by train. The elegant Atlantic Hotel, located just across from the train depot, was a popular nineteenth-century destination for elites and diplomats. Hotel guests were carried to the then uninhabited Atlantic Beach by sailboat. After the Atlantic hotel burned in 1933, the less grandiose Jefferson Motel was built in its place. Restaurants, fish houses and party boats appeared soon after the turn of the century. Morehead City soon became one of the largest sport-fishing centers on the Atlantic coast. An annual "Coastal Festival" began in 1938 (Morehead City Women's Club 1982:54,103,202,227).

The Morehead City Port Terminal was completed in 1934, replacing Pier Number One. Commodities such as iron, steel and salt were brought to port from countries as distant as Japan and Africa (see Appendix A). During World War II, the U.S. Navy leased the entire port facility from the City. Shortly after the war, the State Ports Authority took control of the port to partially fulfill its mandate to create two deep-water ports in North Carolina, the other being the facility in Wilmington. These were financed through the sale of revenue bonds. The port also became the point of embarkation for Camp Lejeune and the Marine Corps Air Station at Cherry Point (Morehead City Women's Club 1982:46).

Morehead City has grown considerably throughout the twentieth century, bypassing adjacent Beaufort in both area and population. The 1920 census counted 2,957 residents. The population had doubled by 1960. Bridges to Beaufort and Atlantic Beach were built after World War I, increasing the flow of tourists through the town. During World War II, new military installations brought both marines and civilians into the area (Morehead City Women's Club 1982:227). Growth brought churches, schools, banks, medical facilities, a post office, theaters and research institutions, such as the University of North Carolina Institute of Marine Sciences and the Duke University Marine Laboratory on Piver's Island. A combination of port-related industrial development and tourism have combined to make Morehead City the growing community it is today.

### **3.8.4 Demographic Characteristics**

#### **3.8.4.1 Population History**

The first census of Morehead City taken in 1860 counted 316 residents (Morehead City Women's Club 1982:25). The population reportedly (Morehead City Women's Club 1982:28) decreased during the Civil War, as a result of persons travelling to fight distant battles. Population size grew substantially at the turn of the century, however, when large numbers of "Ca'e Bankers," people from whaling villages on Cape Lookout, settled in the

"Promised Land" section of the city, following a large hurricane and subsequent decline of the whaling industry (see Table 3.8-1).

<b>Table 3.8-1 TOTAL POPULATION: MOREHEAD CITY</b>	
<b>Year</b>	<b>Population</b>
1860	316†
1920	2,957
1930	3,403
1940	3,695
1950	5,055
1960	5,583
1980	4,359
1990	6,046
Source: United States Census Bureau † (Morehead City Women's Club 1982:25)	

### 3.8.4.2 Recent and Current Population Characteristics

**Total Population** The township of Morehead City (which includes the incorporated areas of Morehead City, Atlantic Beach, Indian Beach and Pine Knoll Shores and various unincorporated rural areas) is the most densely populated township in Carteret County (Holland 1991:I-61). According to the 1990 census, its population density was 598.9 persons per square mile. The area has grown considerably during the last decade. The total township population was 15,803 in 1980 and 21,836 in 1990 (see Table 3.8-2).

**Age/Gender** Of the 6,046 Morehead City residents counted in the 1990 census, 54.6% were female and 45.3% were male. The median age of the total population was 36.3 years -- very little change from the 1980 median age of 36.2 years. The percentage of persons under eighteen years of age was 22.3, and the percentage of persons over the age of sixty-five was 20.8. In 1980 the percentage of persons under eighteen was 23.95 percent, and the percentage of persons over sixty-five was 19.59 percent.



Table 3.8-2 MOREHEAD TOWNSHIP POPULATION TRENDS		
Area	1980	1990
Morehead City	4,359	6,046
Atlantic Beach	941	1,938
Pine Knoll Shores	646	1,367
Indian Beach	54	146
Unincorporated	9,803	12,339
TOTAL TOWNSHIP	15,803	21,836
Source: United States Census Bureau		

**Ethnicity** According to the 1990 census, 80.6% of Morehead City residents were Caucasian and 17.6% were African-American. Native Americans, Asians or Pacific Islanders and persons of Hispanic origin together comprised just 2.7% of the population. These figures are very close to those registered in 1980.

**Household Characteristics** The 1990 Census counted 2,692 households in Morehead City. This is a 58.5% increase from the 1980 household count (see Table 3.8-3).

Table 3.8-3 HOUSEHOLD INFORMATION: MOREHEAD CITY			
Census Category	1980	1990	% change
Total Number of Households	1,698	2,692	58.5
Average Number of Persons per Household	2.45	2.15	-12.2
Percent of Married-couple Families	67.3	39.9	-40.7
Percent of Male Householder Families	.41	3.0	631.7
Percent of Female Householder Families	11.8	15.6	32.5
Percent of Non-family Households	31.6	41.2	30.5
Percent of Householders Sixty-five or Older	13.8	16.6	20.4
Source: U.S. Bureau of the Census			

**Housing Information** In addition to many hundreds of rental homes, there are six apartment complexes in Morehead City, including one that houses mostly low-income residents (Table 3.8-4 depicts summary housing information for Morehead City for the 1980 and 1990 census years).

Table 3.8-4 HOUSING INFORMATION 1980, 1990: MOREHEAD CITY Coastal North Carolina Socioeconomic Study						
Type of Unit	Number of Units			Median Value/Rent (\$)		
	1980	1990	% change	1980	1990	% change
Total housing units	1,979	3,206	62.0	--	--	--
Owner-occupied units	1,107	1,479	33.6	30,400	56,600	
Renter-occupied units/vacancy rate	591/na	1,196/9.3	102.3	119	270	
Mobile homes	34	360	958.8	--	--	--
Vacant housing units	239	531	122.1	--	--	--
Units vacant for seasonal use	42	277	559.5	--	--	--

Source: U.S. Bureau of the Census 1990

#### 3.8.4.3 Seasonal Variation in Population

Morehead City and surrounding beach communities are popular tourist destinations during the summer months. Seasonal tourist travel to the area has increased in recent years, a result of growing populations of seasonal beachgoers from urban centers such as Raleigh, Jacksonville, Raleigh, Durham, Chapel Hill, Greensboro and Winston-Salem. The non-permanent recreational sector of the Morehead City population (tourists) increased 51.1% during the peak season (summer) between 1970 to 1987. Nearby Atlantic Beach increased by 246.7% in non-permanent residents during the same period (Holland 1991:I-19). Incoming residents and visitors from out-of-state reportedly are predominantly from New Jersey and Long Island, New York (Morehead City Chamber of Commerce 1992; personal communication).

#### 3.8.4.4 Local Population Issues

Morehead City is the county's most densely populated area and continues to grow rapidly. Population expansion is occurring primarily in a westerly direction toward the town of Newport.

Currently, Morehead City is discharging its partially treated waste water in Calico Creek. Increasingly, this is a controversial issue because large areas of sound and river waters which are periodically or permanently closed to shellfishing as a result of pollution. Morehead City, like other growing municipalities, watched the controversy surrounding Atlantic Beach's proposal to pump waste water to the Downeast Open Grounds Farm. Many of those who opposed this plan suspected that Morehead and Newport would "hook into" the pipeline since the proposed route was circuitous and passed through these municipalities. Officials insisted, however, that the route was planned only to avoid laying pipe across the port's deep water channel. Morehead City is now investigating the possibility of discharging waste water into the port basin during outgoing tides, although this will likely meet opposition from the North Carolina Shellfish Sanitation Department because of fears of a public health threat in the event of shellfish contamination if the system malfunctioned (Carteret Economic Development Council 1993:4).

A recent conference in Atlantic Beach explored the feasibility of an ocean outfall system for the county and surrounding counties. Although such a system would facilitate further coastal development, it is generally recognized that this area does not have the population to justify such expensive infrastructure at this time. Sewage disposal is probably the primary population-related problem facing the Morehead City and surrounding towns today. The Carteret County Economic Development Council summarizes the situation:

The coastal plain is one of the poorest regions of North Carolina. Centralized waste water and other infrastructure improvements are essential to attract well-paying, year-round employment with basic benefits. As the North Carolina Coastal Federation notes. . . for good or bad, the major factor now limiting high-density development in many parts of eastern North Carolina is sewerage treatment and disposal (Carteret County Economic Development Council 1993:9).

### **3.8.5 Economic Characteristics**

#### **3.8.5.1 Economic History**

As noted earlier, the economic history of Morehead City is primarily linked to the existence of a deep passage at Beaufort Inlet and the related development of the port facility. The increasing tourism in the area also is significant. Many coastal areas in the United States are experiencing growth as the coast is increasing in popularity for visiting and residence.

### 3.8.5.2 Local Business/Industry

**Morehead City Port Terminal** Morehead City is located in a county with a diversified economy. Agriculture, manufacturing, real estate, tourism, retail trade, import/exports, government, the military and commercial fishing are all significant sources of revenue (Holland 1991:I-26) in Carteret. As the largest municipality in the county, Morehead is in many ways the focal point of economic activity in Carteret and The Morehead City Port Terminal is the key infrastructural feature of this activity. Located in east Morehead City where Bogue Sound meets the Newport River, the terminal can berth eight 600-foot cargo vessels and one tanker simultaneously. The port employs 114 persons, has four approved foreign trade sites and is designated as a Foreign Trade Zone (Holland 1991:I-37). Services include cargo handling, dockage, storage, fumigation and railroad switching. Railroad services are provided by Norfolk Southern Railroad.

The military is an important port user. According to Port officials, the military accounts for about ten percent of the general terminal business. The Navy Port Control Office reported that the Morehead City Port generated \$541,456 from military shipments in 1992, which is about nineteen percent of all the revenue from non-bulk shipments (Morehead City Port Authority 1992; personal communication). The Navy Port Control office operates on a budget in excess of \$500,000 for docking, pilot and tug fees. A routine six-month deployment rotation to the Mediterranean occurs, and military activity at the Port is expected to increase with the Clinton Administration's current stance on military activity in Bosnia.

Texasgulf is the largest commercial user of the port facility. The corporation exports phosphate rock, phosphate fertilizer and phosphoric acid. These materials are transported by barge from the company's Aurora, North Carolina mine to the terminal's bulk handling facility via the Intracoastal Waterway (Nance and Greene 1992:463). Weyerhaeuser's New Bern facility has become one of the port's largest exporters, since a recent \$1.8 million renovation of the export terminal converted coal-handling facilities to accommodate the growing wood chip trade. Other commodities handled by the terminal include wood pulp, lumber, veneer, tobacco, coal, salt, fish meal, potash, colemanite ore and military cargo. Although trade in these materials fluctuates widely each year, total trade has not increased significantly since 1987 (Nance and Greene 1992:463).

The gross revenue of the Port Terminal has increased in recent years from \$7.68 million in 1986 to \$8.82 million in 1987 and \$9.57 million in 1989 (Nance and Greene 1992:I-38). The port is critical to manufacturers in Morehead City and surrounding areas. As more foreign markets open for local products, production should increase. Morehead City manufacturers that directly or indirectly benefit from the port include Owens-Corning Fiberglass (a Fortune 500 company), a block and tile company, a pallet and lumber plant, a newspaper company, a printing company, a machine shop, a boat-building outfit and seafood processors (Nance and Greene 1992:I-35).

***Commercial and Recreational Fishing*** Commercial fishing in Morehead City differs from that in Atlantic. In Morehead, there is somewhat less dependency on oysters and clams because of areas closed to harvesting. In fact, there is less "inside" or sound fishing in general, as many Morehead boats fish nearshore or offshore. The county's deep water snapper/grouper fishery fleet primarily works out of Morehead City and Beaufort. This fishery is all but foreign to Downeast communities, such as Harkers Island and Atlantic. Like some ocean-going Atlantic vessels, however, several vessels owned by Morehead City fish houses ply waters from New England to Florida in search of flounder, shrimp, sea and calico scallops. Another major difference between Morehead and Downeast fishing villages is Morehead's involvement in both the commercial and recreational sectors of fishing. Not only is there significantly more recreational fishing out of Morehead City, but many of the "head boat" and "charter boat" captains of the recreational fishing industry consider themselves commercial fishermen. It is common for these captains to switch gear and fish commercially during off-season months for tourism. The line between commercial and recreational fishing also is blurred because of the growing practice of recreational anglers selling their catch at Morehead City fish houses. According to DMF, 331 fishing licenses were issued to residents of the city in 1991.

Morehead City and Beaufort are two of the state's six ports where reef fish are landed; Morehead City has the lion's share of snapper/grouper vessels in Carteret County, with nine full-time vessels out of a total of fifteen for the county. About twice that number harvest on a part-time basis, mainly charter boats that switch gear and fish commercially in the winter months. Snapper-grouper is a year-round fishery; the fish do not migrate in winter but inhabit rocky outcrops.

Morehead City is the sportsfishing center of Carteret County. In addition to the hundreds of private sportsfishing boats, many of which are equipped with sophisticated fish-finding technology, the waterfront is harbor to two large "head boats" and dozens of charter boats. A head boat, named as such because the trip cost is based on a per-person or per-"head" basis, carries up to 100 anglers for half or full day trips. Head boats usually target deep water or pelagic fish. Charter boats typically pursue benthic species such as billfish and tuna. These are hired by private parties on a per-trip basis rather than a per-angler basis and are considerably smaller than head boats, typically carrying four to six passengers. Charter boat fees are relatively high, but anglers may choose their own fishing sites, although the expertise of the captain is usually sought. Captains of both charter and head boats are usually keen on the best fishing spots on a given day and often fish areas known to be productive, such as shipwrecks.

Surf fishing and pier fishing are popular in Morehead Township along Atlantic Beach and Emerald Isle. Bluefish, red drum, flounder, spot, croaker, Florida pompano and mackerels are commonly caught from the beach (North Carolina Division of Marine Fisheries 1992:45). In recent years, pier owners report declining numbers of anglers, however. A battle is currently raging in which pier owners attribute the decline to fall "stop netters" of Salter Path

who allegedly are "catching all the fish." Private boating is soaring in popularity, evident in the prevalence of large dry storage/marina facilities. The majority of private boat owners reside in non-coastal areas (p. 46).

***Marine-related Business/Industry*** The marine industry in Morehead City is one of the most significant contributors to the local economy. Morehead has more marinas, dry storage facilities and yacht brokers than any other town in the area. It also has a good share of marine supply stores, sail makers, canvasworks, marine construction outfits and railways. It is the location of fourteen marinas, seven marine supply stores, four boat builders/repairers, eighteen charter boat outfits, six canvas works, seventeen boat dealers, one boat storage facility, nine seafood dealers, seven fish wholesalers, four tackle dealers, two sport diving companies and six marine construction contractors.

***Tourism Services*** Tourism and recreational fishing contribute significantly to Morehead City's economy. Charter and head boat fishing is very popular in the late spring, summer and fall months. These enterprises bring in many thousands of fishermen each year. Related businesses include seafood restaurants and wholesale/retail fish markets that buy fish from sport and commercial fishermen.

The waterfront has long been the center of tourism in the town, and some of the restaurants have been operating there for decades. Some residents feel Morehead should model its tourist industry after Beaufort, which has recently undergone considerable gentrification along its waterfront and is currently flourishing in the tourism sector as a result.

Retail sales in Morehead City accounted for forty-four percent of retail sales in Carteret County in 1987 (Wooten Company 1991:9).

***Food Services*** There are roughly fifty restaurants in Morehead Township. About half of these are located within city limits. An increasing number are located in the unincorporated areas and sprawling shopping mall developments on Highway 70 towards Newport. Morehead restaurants range from several fast-food and family chains to high-priced gourmet cafes (Nance and Greene 1992:90-99). Morehead is well-known for its many seafood restaurants. There are three grocery stores within city limits and three in the unincorporated areas of the township. Also, numerous convenience stores supply a limited selection of groceries.

***Lodging*** Morehead City has ten private motels and two bed and breakfasts. It currently has 515 rooms not including the two bed and breakfasts. There are three national chain motels within the city limits of Morehead. The nearest campground is twelve miles from the city on Highway 24 (Nance and Greene 1992:158).

***Medical Services*** Carteret General Hospital in Morehead City is the county's only full-service hospital. The facility provides around-the-clock emergency and major health care services for county residents. If extensive cardiology or prenatal care are required, the

hospital can arrange for air transportation to Greenville or Raleigh hospitals. The hospital has two subsidiary facilities in the county, a clinic in Cape Carteret and a clinic in Sea Level (Nance and Greene 1992:452). Most county physicians have offices in a large office complex near the hospital known as "Medical Park." Morehead City has a total of some twenty eight full-time physicians.

**Construction** There are thirty-eight general contractors in Morehead City. Thirteen companies specialize in home improvements. There are also numerous plumbing, electrical and other construction service-oriented companies.

**Other Business/Industries** Morehead City has the largest number of retail trade stores in Carteret County. There are six drugstores, numerous tourist-oriented gift shops, several hardware stores, two large shopping complexes with major retail chains such as Sears and Belk-Beery, discount stores, furniture stores, office supply stores, major car dealerships, women's boutiques, book stores, garden centers and sports shops (Nance and Greene 1992:173-184).

Numerous personal services are available in Morehead City. These include: legal assistance, accounting, automobile repair, banking, beauty salons, house and office cleaning, catering, day care, electrical, florists, insurance, landscape design, painting, pest control, photography, plumbing, real estate, real estate appraising, construction, electric, plumbing and septic tank installation.

### 3.8.5.3 Local Employment

In addition to the port terminal, which employs 114 persons, a variety of public and private sector enterprises are based in Morehead City. While many employees are residents, others travel from outlying areas to work in town. Many Morehead residents travel to work in other areas of the county. The following provides a general picture of employment in the area.

**Public Sector Sources of Employment** The largest public sector employer in the Morehead City area is the Carteret County school system, which employs over 950 residents (Carteret County Economic Development Council 1992a:6). About six hundred residents of the general area are employed by the county or state in federal and state fisheries agencies and the Department of Transportation. Over one hundred residents are employed at the state port and about one hundred at the National Oceanic and Atmospheric Administration (NOAA) research facility, Beaufort Laboratory (Carteret County Economic Development Council 1992a:6). Carteret Community College employs an additional one hundred area residents. Three hundred and fifty people were employed at Cherry Point Marine Air Station in 1991 (Carteret County Economic Development Council 1991a). Their combined gross annual pay was \$23,122,606. New jobs have been scarce at this facility in recent years and, considering

the reduction in U.S. armed forces, few new openings are expected. The facility is under review for closing due to federal budget cuts.

Five marine science and research facilities are located in the area, two of which are in Morehead City. The University of North Carolina Institute of Marine Fisheries Laboratory is situated on Bogue Sound along U.S. 70. Created to facilitate the Marine Sciences Program at the University of North Carolina, Chapel Hill, the institute offers both undergraduate and graduate courses and research programs in biological, chemical, geological and physical aspects of marine science (University of North Carolina at Chapel Hill Marine Sciences Program brochure nd:1). The Institute employs more than forty Carteret County citizens, including eight faculty members.

The North Carolina Division of Marine Fisheries (DMV), also located in Morehead City, is charged with managing and regulating fisheries resources in state waters and estuaries. The DMV enforces fisheries regulations, tests water quality and compiles statistics fisheries landings statistics. The agency employs about 170 Carteret County citizens.

***Private Sector Sources of Employment*** The largest private sector employer in the Morehead City area is Atlantic Veneer. This manufacturing company is based in nearby Beaufort and employs some 700 people.

The health services industry is a significant employer in the Morehead City area. The second largest private sector employer in the county is Carteret General Hospital, which staffs 400 health-care workers. More than 200 county residents work in county nursing homes.

National and regional retail chains are also important sources of employment. Food Lion employs between 90 and 240 residents, depending on the season, Wal-Mart has 200 employees, Roses employs 132, Sears has 110 workers, and Belk-Beery employs between 120 and 170 county residents. Henry's Tackle and Sporting Goods employs 171 to 202 persons. Down East Togs and Cross Creek Apparel employ over two hundred workers each.

Finally, there is a great variety of food service facilities and small retail businesses in the Morehead City area. An accurate count of employment in these businesses is not available.

#### **3.8.5.4 Seasonal Variation in Local Economy**

The peak season for tourism in Morehead City and the nearby beach communities along Bogue Banks is the non-school summer months between Memorial Day and Labor Day. Morehead, as well as nearby Atlantic Beach, draws a large number of visitors who may go to the theater, or to one of the many restaurants or stores in Morehead City during their stays. Morehead is only partially dependent on tourism during these months, however.



Activity within the port terminal and other local enterprises ensures relative stability throughout the year for a large sector of the local economy.

### **3.8.6 Locally Active Governmental Institutions and Services**

#### **3.8.6.1 Governmental History**

Annexations during the 1980's have increased the population of Morehead City and the responsibilities of local government. The town interacts with county government agencies based in the nearby county seat of Beaufort.

#### **3.8.6.2 Federal Government**

Federal institutions based in Morehead City include: Army, Navy and Coast Guard recruiting offices; an Army reserve unit; a National Guard armory; a U.S. Army Corps of Engineers Docks and Facilities office; the National Park Service Cape Lookout National Seashore headquarters; the Navy Shore Patrol office; and U.S. Customs Service offices at the port.

The U.S. Coast Guard station at Fort Macon on Bogue Banks, while not based in Morehead City, regulates commercial and recreational marine traffic in the area. Established in 1952, the station deploys four large cutters and several small vessels. Coast Guard personnel patrol an area from Drum Inlet on Core Banks to the North Carolina-South Carolina border. The Coast Guard is charged primarily with law enforcement, and search and rescue in the event of emergencies, maintenance of navigational aids and drug interdiction. The Coast Guard also enforces regulations of the National Marine Fisheries Service.

The U.S. Post Office in Morehead employs four full-time clerks, five part-time clerks, five full-time carriers, three part-time carriers, two full-time rural route carriers, three part-time rural route carriers and one maintenance worker. The facility serves 1,184 active post office boxes, 5,283 city roadside boxes and 2,740 rural route boxes.

The U.S. Dept. of Agriculture Animal and Plant Protection and Quarantine Programs are active at the port terminal, to assure that no exotic plant or animal species or disease enters the county via shipping. U.S. Customs office is also located at the Morehead City Port, as is the Corps of Engineers Docks and Facilities office.

NMFS is charged with the management of marine fisheries in federal waters, from three to two hundred nautical miles offshore. Morehead City sport and commercial fishermen therefore are impacted by NMFS regulations, particularly those targeting deep water reef fish such as snapper-grouper, or other offshore fisheries, such as the bill fishes, spanish and king mackerel, dolphin, drum, shark, etc.

### 3.8.6.3 State Government

Several state agencies maintain offices in Morehead City. These include the Employment Security Commission, the Alcoholic Beverage Control, the Highway Patrol, the Coastal Management Division of the Department of Environmental Health and Natural Resources (DEHNR), the Department of Motor Vehicles, the DEHNR Division of Marine Fisheries, the DEHNR Division of Shellfish Sanitation, the Morehead Office of the State Ports Authority and the Deputy Assistant Secretary of Transportation. The University of North Carolina Sea Grant program operates the North Carolina Seafood Laboratory in the Division of Marine Fisheries building in Morehead City. The lab helps market seafood, tests aquaculture methods and educates the public about North Carolina seafood.

The DMF manages all marine and estuarine resources in coastal creeks, bays, rivers and sounds, and a distance of up to three miles offshore. The agency enforces fisheries regulations in state-jurisdiction waters (Carteret County Economic Development Council 1992b:9).

### 3.8.6.4 County Government

The town of Beaufort lies just east of Morehead City. Beaufort is the Carteret County county seat and houses the majority of county government offices. County offices based in Morehead City include the Carteret County Farm Bureau and the Carteret County Tourism Development Bureau. Program offices of Carteret Community Action are also based in Morehead City. These include Job Training, Foster Grandparents, the Senior Center, Head Start and the Council on Aging. Although Morehead City is incorporated, it remains under the jurisdiction of the Carteret County Board of Commissioners.

### 3.8.6.5 Community Government

Morehead City is governed by a mayor, a city manager and a five-member, elected town council. Council members serve four-year terms. The mayor also is a member of the town council but votes only in the event of a tie. The city manager is appointed by the mayor.

Morehead City municipal government is responsible for a wide variety of planning and policy matters. These include land use and development, urban growth, state and federal regulatory considerations, tourism and many other issues.

The 1991 town budget for the municipality of Morehead City was \$4,864,750. About sixteen percent of this money was allocated to general government, thirty-three percent to public safety (fire, police, rescue, building inspection), fifteen percent to economic development, thirteen percent to capital outlay/reserve, ten percent to transportation, eight

percent to environmental protection and four percent to recreation (Morehead City Town Hall 1991).

***Law Enforcement*** The Morehead City Police Department (MCPD) employs nineteen full-time officers, four part-time officers and a reserve force of ten personnel. MCPD deploys nineteen squad cars within its jurisdiction. The department averages 1,200 - 1,500 calls per month, most of which are non-crime service calls for bank escorts, locked cars and so on. Domestic and drug-related responses are also common. In 1991, there were a total of 527 crimes reported, fifty-six of which were classified as violent. These figures are almost twice the number of crime responses reported for Beaufort in 1991 (North Carolina Department of Justice 1991:84).

***Fire Prevention and Suppression*** The Morehead City Fire Department is comprised of thirteen paid members and about thirty volunteers. The facility has two fire stations, three pumpers, two tankers and an equipment truck. The Fire Department averages thirty calls per month for two response areas. One response area is a 2.3 square mile municipal district. The other is a 13.5 square mile rural county district. The Morehead City Fire Department operates under the auspices of the Carteret County Emergency Management Plan. Fire fighters usually receive initial training at Carteret Community College and participate in in-station training at least twice a month. They are required to receive training in "Fire Fighter One" (a state certification) and have the option of ascending to levels Two and Three. Special training sessions required include hazardous materials training for "awareness" level in which the trainee learns to identify hazardous materials. Training in the "operational" level, whereby one operates defensively and comes into contact with hazardous materials, is optional. The hazardous material technician level requires about 200 hours of a chemistry class; local fire fighters typically forego that level of training and call the Cherry Point or Camp Lejeune fire department in the event of a serious hazardous material problem.

***Emergency Medical Services*** The Morehead City Emergency Medical Service (MCEMS) has four paid employees and seventeen volunteers. MCEMS employs three ambulances, one utility truck and one Suburban for general business purposes. The squad averages 110 calls per month, most of which involve transporting nursing-home or rest-home residents to Carteret General Hospital. Emergency Medical Technician (EMT) training requires a 142 hour course at Carteret Community College. Some volunteer personnel are certified as ambulance attendees. There is no paramedic training in the county and no paramedics working with the EMS staff.

***Public Works*** The Morehead City Public Works Department (MCPWD) is responsible for street and sidewalk repair, storm drain maintenance, park and cemetery landscape maintenance, maintenance of city-owned vehicles, new street inspections and solid waste disposal. MCPWD sponsors the Voluntary Curbside Recycling program which maintains 921 recycling bins for paper, aluminum, glass and plastic. The department employs twenty full-time workers.

**Education** Morehead City public schools are part of the Carteret County school system. Camp Glenn Elementary School had an enrollment of 589 students in 1989. Morehead Elementary had an enrollment of 593; Morehead Middle School had an enrollment of 593; and West Carteret High had 1,431 students enrolled in 1989. All Morehead public schools, particularly Morehead Elementary and West Carteret High, are considered overcrowded. Morehead Elementary is scheduled to be replaced by a larger facility within the next couple of years (Holland 1991:I-105; Nance and Greene 1992:417).

Morehead City also is home to two private schools -- Grace Christian, which teaches kindergarten through twelfth grade, and St. Egbert's Catholic school, which teaches kindergarten through fifth grade. Some Morehead City students attend the Gramercy Christian school in Newport. This institution teaches kindergarten through the ninth grade (Nance and Greene 1992:419-420). During the early 1980's, the county-wide trend was toward an increase in private school enrollment. This trend has reversed in recent years with an increase in public school enrollment (Holland 1991:I-105-I-106).

The county's only community college, Carteret Community College (CCC), is located in Morehead City. This accredited institution offers Associate degrees in a number of programs and basic adult education and high school completion courses (Nance and Greene 1992:457). About 1,591 students were enrolled in credit courses and 1,925 in non-credit extension courses in 1992. In the fall of 1992, the college had 332 students enrolled in a continuing education program sponsored by East Carolina University (Carteret County Economic Development Council 1992a:8). The college has a 20,000-volume library and is open to the public.

CCC once offered numerous vocational courses in auto mechanics, welding, photography and boat building (Carteret County Economic Development Council 1992a:8), but budgetary constraints and lack of student interest led to recent cutbacks. Auto mechanics courses are no longer offered, and some classes in welding and air conditioning repair have been cut.

The University of North Carolina Institute of Marine Sciences, an interdisciplinary teaching and research laboratory, is also located in Morehead City. The institute's curriculum includes research of human effects on coastal ecosystems. The facility has a full-time faculty of eight.

**Social Services** Morehead residents, like all Carteret County residents, have access to the public assistance programs offered by the Department of Social Services and Carteret Community Action in Beaufort. Although social services does not break down its applicants in terms of community of residence, the director reports that the bulk of people receiving aid are from Beaufort and Morehead City, while fewer are from the wealthier Bogue Banks area and the relatively poorer region of Downeast. The latter residents often subsistence fish and garden, make a living doing odd jobs during difficult times, or receive cash advances from fish houses, and, thereby, avoid the need for public assistance.

Carteret County's only senior center is located in Morehead City. The center serves residents sixty years old and older, residing in all parts of the county. The director of the center is the only full-time employee, but six senior citizens (fifty-five and older) are employed part-time. The center is funded by federal, state, and county monies on a matching fund basis.

Senior Center programs include free lunch daily for county citizens sixty years old and older; free legal assistance; bi-weekly transportation to Morehead City from Atlantic and Sea Level; craft classes; and courses in basic skills and biblical history. Weekly leisure activities include an exercise program, a music program, table tennis and billiards. The center functions on a full-time basis. The rate of program usage at the center is high among both native and non-native retirees. Center services are of particular benefit to low-income seniors who are without transportation.

***Cultural and Recreational Services*** The Carteret County Parks and Recreation Department, based in Beaufort, operates a number of public parks in the county, including Swinson Park in Morehead City. Recreational programs include men's and women's softball, T-ball, and boys and girls softball. The service also sponsors tennis lessons, volleyball tournaments, and football and basketball games. Many residents use Swinson Park year-round. The county offers a variety of athletic activities at the center. These include weight training, aerobics and tennis. Youth athletic programs include T-ball, softball, basketball and karate. The facility occasionally offers special programs such as dog obedience school.

There are three libraries in Morehead City. The privately funded Webb Memorial Library employs two people and contains approximately 50,000 volumes. The library does not charge a user fee and has a high level of use. Carteret Community College has a 20,000-volume academic library open to the public. The Carteret County Historical Society museum houses a library of approximately eight hundred volumes. It is staffed by a fluctuating number of volunteer personnel and one salaried office manager.

Morehead City has one of the largest full-time community centers in Carteret County. The Morehead City Recreation Department operates the municipally-funded facility. The center also receives a small membership fee from citizens residing within city limits and a slightly higher fee from persons living out of town. The community center serves all ages and is popular with local residents.

The Carteret County Museum of History and Art is located in Morehead City. The museum, housed in a turn of the century school building, contains the Carteret County Historical Society's library, which is used by local historians and genealogists. The museum displays several historical and prehistorical collections and periodically exhibits works by local artists.

The Carteret County Historical Society sponsors an Annual Harvest Festival in late September. This function features local art, crafts and music. The North Carolina Seafood Festival, the largest festival in the county, occurs in Morehead during the first weekend of

October. The festival offers a variety of seafood, arts and crafts, music and dances, and draws thousands of visitors from around the country.

The North Carolina Aquarium at Pine Knoll Shores is designed to educate the public about the "state's fragile marine resources." The facility sponsors numerous programs on marine ecology, such as an annual sea turtle hatchling release (Nance and Greene 1992:216).

Fort Macon State Park is located on the far northeastern end of Atlantic Beach. Construction of the earthen and stone fort was begun in 1756 to protect Beaufort from Spanish raiders, but was not completed until 1834. Named for a North Carolina State Senator, the fort was given to the state as a public park by an Act of Congress in 1924. Fort Macon is the most visited state park in North Carolina, attracting one million visitors each year.

The community college, a local theater association and West Carteret High School periodically sponsor drama productions. The Carteret County Arts Council conducts a children's art workshop annually at the community college. Classes in drama, music, painting, writing, carving and photography are also taught there. Morehead City also has two movie theaters with a total of five screens. A relatively new cinema in Atlantic Beach offers an additional five screens.

#### **3.8.6.6 Local Governmental Issues**

Crime prevention, especially curtailment of drug trafficking, is a growing concern for Morehead City officials. Like many port cities, Morehead is not immune from drugs and related problems. Other major issues facing the municipality include the following (as adapted from Wooten Company 1991:55):

- \* the potential economic impact of continued residential development;
- \* maintenance of low-density development;
- \* protection of views and breezes from high-rise development;
- \* redevelopment of the downtown area;
- \* consideration of the economic impact of the state port;
- \* management of commercial development along U.S. 70;
- \* consideration of the impact of tourism; and
- \* improvements to major thoroughfares.

In recent years there has been increasing friction between local commercial fishermen and the U.S. Coast Guard. Fishermen say Coast Guard vessels harass and unfairly penalize them for not complying with regulations the fishermen say are confusing and rapidly changing. The Coast Guard has also been criticized for putting a priority on boarding of vessels for drug searches and equipment checks, while not responding to vessels in need of towing. Although Coast Guard vessels once provided towing to most disabled vessels, its current policy is to refer disabled vessels to private marine towing companies.

### **3.8.7 Physical Infrastructure and Land Use**

#### **3.8.7.1 Infrastructure History**

Morehead City has enjoyed good transportation linkages to other parts of the region and state. Indeed, growth of the municipality has been directly related to its physical links to the Atlantic Ocean, the Intracoastal Waterway and the southern rail system.

Transportation of commodities through Morehead has been an important factor in local economic growth since the nineteenth century. The institution of Morehead as one of the state's two port terminal facilities in 1952 was a critical step.

An effective transportation infrastructure also allowed the tourism industry to prosper in the early years. Tourists from inland counties travelled to Morehead City by rail. Before the Atlantic Beach causeway was built after World War I, Morehead City hoteliers would provide lodging for tourists and ferry them across Bogue Sound to enjoy the isolated beaches.

More recently, the Newport River highrise bridge was built in the sixties to replace the smaller drawbridge originally constructed in 1912. This allowed simultaneous passage of larger vessels and auto traffic. The construction of the new Atlantic Beach causeway bridge in the late eighties expedited travel to and from the beach areas. Construction of bridges and development of a good road system have been key factors in today's expanding tourism industry in Morehead City and surrounding communities.

#### **3.8.7.2 Physical Infrastructure and Related Issues**

***Marine Facilities*** There is one state-maintained boat ramp in Morehead City. The facility, located in Morehead City Municipal Park, contains several launching areas and a large, unpaved parking lot (Nance and Greene 1992:245).

Morehead City enjoys four large privately-owned marinas. Three of these facilities offer both dry stack storage and wet slips. Fifteen smaller private marinas are dispersed throughout the waterfront areas in the town.

Five marine contractors are based in Morehead. These offer dredging, sea wall construction and other services. Four businesses in Morehead offer marine electronics services, and numerous companies offer marine supplies. There are also four marine towing companies in Morehead City.

**Transportation System** The Morehead City area is linked to points west by U.S. 70 and points south and west by State Route 24. State Route 58 serves the Bogue Banks area. These routes are maintained by the North Carolina Department of Transportation, as are all area bridges. The drive to the state capital in Raleigh is just under three hours (150 miles).

Morehead City maintains over twenty-six miles of streets. According to Wooten Company (1991:43), five streets in the municipality are at or exceeding capacity. The causeway from Morehead City to the Atlantic Beach area is also at or above capacity.

The Beaufort/Morehead Municipal Airport is located in Beaufort, roughly three miles east of Morehead City. The facility does not yet handle commercial flights, but charter service is available. The nearest airport served by commercial carriers is thirty miles distant in New Bern.

The Norfolk Southern Railway joins Beaufort/Morehead railway at the Port terminal. The rail serves local industry, the military complex to the west and the port. The Intracoastal Waterway, maintained by the U.S. Corps of Engineers, serves as an important route for commercial barge traffic, fishermen and recreational boaters (Holland 1991: I-100-101).

The county's only bus station is located in Morehead City. Carolina Trailways provides service. There is no municipal bus service (Nance and Greene 1991:343). One taxi company operates out of Morehead City, as does one limousine service (Nance and Greene 1991:343). There are four car rental businesses in Morehead City.

**Water and Sewer** Morehead City operates its own municipal water system. The maximum daily capacity is 2,000,000 gallons. Elevated storage tanks hold 500,000 gallons of water. Unincorporated areas of Morehead Township are served by the recently formed West Carteret Water Corporation, which also serves the towns of Cape Carteret and Cedar Point. Township areas along Bogue Banks, namely Pine Knoll Shores and Indian Beach, are served by Carolina Water Services (Holland 1991:I-96).

Morehead City owns and operates a central waste water collection and treatment system. The system meets National Pollutant Discharge Elimination System (NPDES) permit requirements, but it has severe inflow and infiltration problems due to its age (Holland



1991:I-97). Morehead's system has a treatment capacity of 1.7 million gallons daily. Twelve pumping stations serve the municipality. Dried sludge is transported to the county landfill. Treated effluent is discharged into Calico Creek under the provisions of a Special Order By Consent issued by the Division of Environmental Management. This special order calls for the city to eventually make improvements to eliminate discharge of untreated effluent during periods of heavy rain (Holland 1991:I-97-98).

***Solid Waste Disposal*** Residents of Morehead City use a solid waste collection and disposal service regulated by the County Board of Health. Morehead Township residents living in unincorporated areas either contract with private firms to pick up refuse, or transport their trash to the county-operated "green boxes." These boxes are periodically emptied into trucks and transported to the county landfill.

The county landfill, located in Newport Township, is the disposal site for all domestic and commercial waste. The landfill is adequate for the county's solid waste and there is no evidence of groundwater contamination (Holland 1991:I-104). Morehead City has started a curbside recycling program sponsored by the Public Works Department.

***Energy*** Carolina Power and Light (CP&L) supplies power to Morehead City. Carteret-Craven Electric Membership Corporation, a cooperative formed by persons in unincorporated areas not served by CP&L, supplies energy to many of the non-municipal areas. Natural gas is not available, but fuel oil, coal and lp gas are available through private companies and distributors.

***Communications*** Carolina Telephone provides local and long distance phone service to Morehead City customers. A county-wide newspaper is published in town three times a week. There is one local talk radio station, and one top-forty music station. A local cable company provides cable television programming to the area and broadcasts local commercials and public service announcements.

***Infrastructure Issues*** Sewer treatment is the most pressing facility issue in Morehead City and surrounding communities. Although towns such as Morehead City, Atlantic Beach and Beaufort maintain their own treatment plants, these are becoming inadequate for a rapidly growing population. There is growing pressure for County Commissioners to take initiative on a county-wide sewer plan. Some proposed plans call for a central sewer system. Morehead City currently discharges partially treated waste water into nearby Calico Creek, a procedure unpopular with local residents.

A centralized sewer plan would also address the waste water situation in Atlantic Beach. That municipality recently proposed to pump treated waste water to a large farm in the Downeast portion of the community. This proposal prompted opposition from many county residents who perceived dire risk to estuarine water quality in the event of farm runoff. Atlantic Beach is now considering an ocean outfall method of waste water treatment. This possibility also has provoked controversy between developers who see ocean outfall as a

means for allowing more development and persons who see it as having the potential for damaging the ocean environment.

Another important infrastructure issue is the capacity of the highway system during peak season months. A recent expansion of the Atlantic Beach bridge helped to alleviate some peak season congestion, but many residents feel that U.S. 70 needs expansion or re-routing as well. Routes 70 and 24 are the primary routes to, and through, Morehead and become highly congested during peak season months and throughout the year at rush hour, although Highway 70 was recently widened. According to Holland (1991:I-101), congestion in Morehead City and surrounding municipalities frequently "poses a significant safety hazard as well as a negative impact on the tourism trade."

Annual daily traffic near the junction of 70 and 24 is the highest in the county. Traffic in the Morehead/Beaufort/Atlantic Beach area has increased significantly in the last decade (Holland 1991:I-101). One solution was the new high-rise bridge built between Morehead City and Atlantic Beach in 1987. Some plans envision another bridge between the mainland and Bogue Banks to alleviate congestion at the Atlantic Beach bridge during summer months (Holland 1991:I-102-103).

Yet another important issue is the availability and quality of drinking water. All regional municipal water systems obtain water from aquifers located in the Yorktown/Castle Hayne formations. With increasing demand for water, salt water intrusion is a foreseeable problem (Holland 1991:Map 12).

### 3.8.7.3 Land Use Patterns and Related Issues

**Land Ownership** Although it is in close proximity to the federally-owned Croatan National Forest and Cape Lookout National Seashore, most land within the Morehead town limits is privately or commercially owned. Within the township, a substantial amount of former farmland and some wetlands have been developed for subdivisions and commercial uses within the last decade (Holland 1991:i-47). The county or state owns land on which the following public facilities are placed: Morehead City Fire Department, Morehead City Community Center, Morehead Elementary School, Camp Glenn Elementary, Morehead Middle School, West Carteret High, Carteret Community College, Swinson Park and the North Carolina Division of Marine Fisheries.

**Zoning and Land Use** With the exception of a small area known as Crab Point, all areas in Morehead City are zoned. The land areas parallel to U.S. 70 are zoned for commercial and/or industrial use. The land along State Route 24 is mainly residential but also includes some commercial zoning areas (Holland 1991:I-61).

Residential development is heaviest along State Route 24 and the Bogue Sound area: the soils here are well drained and most suitable for development. Shoreline-related commercial

development in the Morehead City area has been heavy. Within the municipal areas, there are nine marinas and numerous fish house facilities. There are seven marinas and one fish-packing operation in the unincorporated areas of Morehead Township (Holland 1991:I-61,62).

A portion of Morehead township is not developable due to environmental regulation. This area includes the ocean hazard area on Bogue Banks, numerous wetlands areas and areas near Bogue Sound Outstanding Resource Waters (ORWs) (Holland 1991:I-62). ORWs are waters with special attributes, such as fish nursery areas, that are protected for common good. Most of the land within the township, however, is suitable for development (Holland 1991:I-62).

Continued "strip development" is expected along U.S. 70 and State Route 24. One of the largest obstacles to growth along the highway is increasing traffic congestion. The 1991 Land Use Plan declares Route 24 to be "ineffective as a major thoroughfare" (Holland 1991:I-62).

Most commercial and industrial development in Carteret County has occurred in Morehead township. Commercial and industrial growth is expected to accelerate westward along U.S. 70 toward Newport, facilitated by the expansion of central water and sewer services (Holland 1991:I-62) and the existence of few wetland areas.

**Hazard Areas** All of Carteret County is considered a flood hazard area and much of the easterly portion is only a few feet above sea level. Although not as vulnerable as Downeast areas such as Atlantic, Morehead City (at ten feet above sea level) is subject to storm flooding from hurricanes, tropical storms, or other weather disturbances such as "nor'easters." The situation is exacerbated by a slowly but steadily rising sea level (Holland 1991:I-71).

Several sites in Morehead township store hazardous materials. Most notable is the state port terminal which stores a variety of dangerous materials including: fuel oil, heating oil, blending oil, propane, gasoline, limestone, titanium dioxide, lime, Talc TC 100, saran coated polypropylene film, Kraton rubber, polyester fiberment, fiberglass, roofing material, atatic polypropylene, poly wax, methyl bromide and phosphoric acid. Most of the marinas store gasoline and fuel oil. Local automotive, gas and oil companies store gasoline, kerosene, fuel oil and motor oil. Carolina Power and Light and Carolina telephone also store hazardous materials. The Town of Morehead City stores nitric acid, sulfuric acid, chlorine, propane and fuel. The Town of Pine Knoll Shores stores gasoline and chlorine (Holland 1991:appendix III).

**Visual Considerations** Highway 70, as it passes through Morehead City, is by and large a "strip development" of fast food chains, motels, shopping centers and car dealerships. The port and highrise bridge are the most visible structures in Morehead City. This section impresses the traveller as being a highly industrialized zone of ships, storage tanks and heavy

crane equipment, all permeated with the sour smell of wood chips and fish meal. The side streets and much of the waterfront area of Morehead generally are well kept and quaint, offering shady yards and nice homes. Currently, there is a movement to beautify downtown Morehead so that it is on par with the "nicer" areas of town and with Beaufort.

***Land Use Issues*** An important land use issue in the Morehead City area is restriction of development in wetland areas. Both commercial and residential development is constrained by the existence and regulation of submerged lands.

### **3.8.8 Social and Cultural Characteristics**

#### **3.8.8.1 General Socioeconomic Background**

Morehead City was founded as a center for commerce and trade, and the establishment of a deep water port with a connecting railroad was central to that vision. A younger town than Beaufort, Morehead City was in full swing, with a port, houses and businesses by its incorporation in 1861 (Morehead City Woman's Club 1982). Morehead's early residents migrated into the area for work in the young, thriving town. Tourism began early as up-staters rode the train to the Atlantic hotel, where they could be ferried out to the then uninhabited Bogue Banks.

Compared to Beaufort, Morehead City is, by and large, a more rough and ready town, anxious to court new businesses, trade and other opportunities. Morehead, connected to upstate cities via railroad, rapidly came to outgrow Beaufort and acquired more of a diverse population. This trend increased with the establishment of the Cherry Point military base around World War II, as military personnel began visiting and settling in the Morehead City area (Morehead City Women's Club 1982:227).

The twentieth century was a good time of opportunity for Morehead City; between the port, nearby military facilities, tourism and the menhaden factories, native residents and newcomers alike could find work. Today, more than any other town in Carteret County, Morehead City is home to a diversity of people of different ethnic and cultural backgrounds, income levels, education levels and religious beliefs. Unlike other county towns, the sport and commercial fishing industries considerably overlap. Unlike Beaufort, the downtown waterfront is not an upscale tourist showcase but a scattered arrangement of fish houses, restaurants, gift shops, head boats and commercial fishing trawlers.

#### **3.8.8.2 Sociocultural Aspects of the Community**

***Physical Appearance*** Morehead City is surrounded by water on three sides -- Bogue Sound to the south, Newport River to the north and the Beaufort Inlet/Intracoastal waterway to the east. West of Morehead City is the town of Newport, then Havelock and New Bern. When

one travels east past the port over the Beaufort/Morehead bridge, one sees a large expanse of river and marshland. Just north of Morehead in the Newport River is the Phillips and Annex Islands Nesting Colony (Holland 1991:1-90). These two islands contain large nesting colonies of heron, egret and ibis. One island is covered in wax myrtle, silverling, yaupon, marsh elder and red cedar. This nesting area is considered to have statewide significance. Barely visible on an island nearing Beaufort is the remains of an old menhaden plant, a partial brick chimney one of the few reminders of the earlier dominance of this industry to Morehead City and Beaufort.

Morehead City is not impressive from an aesthetic point of view, seen from highway 70 to Beaufort. It is bordered by "strip development" of fast-food chains, motels, shopping centers, car dealerships, office buildings and grocery stores. Downtown, on 70, every block has a poorly-timed traffic light as one passes thrift stores, a Salvation Army store, some abandoned office buildings, banks, lunch counters, high-rise condominiums, and finally comes to the port. The port and highrise bridge are the most visible structures in Morehead City; (this section impresses the traveller as being a highly industrialized zone of ships, storage tanks and heavy crane equipment, all permeated with the sour smell of wood chips and fish meal.)

The waterfront of Morehead City has a "honky tonk" quality to it that is lacking in Beaufort's waterfront. Presently, city officials are planning to improve or modernize the waterfront, but many people find the present-day waterfront charming. Commercial fishing trawlers and yachts are found almost side by side, docking for fish houses and seafood restaurants lie next to one another. Tourists walking the waterfront may dodge baskets of seashells for sale, shaded by masses of wind chimes made of pastel painted shells. If the tourist passes the rows of charter boats or the head boat docks at the end of the day, he or she can witness great rows of dolphin, wahoo, grouper, mackerel, or shark being slid up on the dock, hosed down, hoisted for pictures and wheeled to the nearby fish houses to be clean or sold. The smell of deep fried hushpuppies from one of the several restaurants permeates the air. A giant statue of King Neptune arises from the sidewalk, beckoning passers-by to visit the dive shop.

The residential sections of Morehead City are varied: the south side of town, near the waterfront, is predominantly traditional bungalow style older homes, with sloping roofs and front porches. The streets are generally well-kept and shady. This area includes the "Promised Land," a section once inhabited by nineteenth century refugees of Shackelford Banks who moved to points on the mainland after storms devastated their barrier island village of "Diamond City." Some descendants of these "Ca'e-bankers" continue to live in this section of town. The northern side of town, across the street from the waterfront area, is another old section of town of shady streets and grand old homes, many in need of repair. West of this area is "Crab Point," an old section that once had a sizeable population of Black fishermen and families. It is now inhabited largely by native white residents and, increasingly, non-native upscale residents who are moving into new subdivisions.

Black families are concentrated west of this, near the Newport River, an area of bungalow-type homes with front porches. The Black section of Morehead extends a good distance westward, to a community known as "Mansfield." Juxtaposed near these Black communities are relatively new subdivisions and a country club community known as Mandy Farms. In a subdivision near Crab Point, a line of new, sizeable houses was built within sight of a line of small houses built years ago and inhabited by Blacks. In 1992, a new homeowner complained about the "unsightliness" and "danger" of one of the backyards in the Black community. The backyard contained junked cars and piles of wood. This received television news coverage, including the cameraman getting snapped at by a pit bull in the yard of the "offender." The owner of the junked yard seemed confused by the fuss; the city gave him a set time within which he was ordered to clean up his yard. This is one example of the increasing clash of lifestyles and the influence of incoming people who are wealthier than the average county native.

*Living in Morehead City* Morehead City is the closest thing to "city life" in Carteret County. People like to joke that it must be a big city because it has a Sears and Walmart. For residents east of Morehead, the city is a place to shop, visit the doctor, or be hospitalized. For Morehead residents in the upscale subdivision areas, Morehead is convenient and has most amenities within a short driving distance. It also is not far to points west, such as New Bern or even Greenville. It is a very short drive to Atlantic Beach and Fort Macon. Morehead is a place of expansion: New homes, marinas and shopping centers are cropping up every year, particularly in the western portion of the township. For many native born residents, Morehead is growing "out of bounds," with the incoming residents and tourists being mixed blessings. The natives' biggest complaint is the traffic in the summer, mainly people traveling to Atlantic Beach. This is a complaint shared by non-natives as well.

For the sake of analysis, the residents of Morehead City may be categorized into a number of social groups, although the actual situation is far more complex. Many Morehead natives are descendants of seafaring peoples from Diamond City on Shackelford Banks, and a portion of these migrated to the "Promised Land" section of Morehead after fierce storms caused the whole island community to take leave. These residents are very proud of their history, and many stories are told and written describing the migration of people, livestock and even houses to the mainland. The Promised Land is still recognized as a distinct block of homes in Morehead City; the houses are characteristically a small, bungalow-type architecture. In general, natives of Morehead, called "Moreheaders" by natives of Beaufort and beyond, speak with the ubiquitous Elizabethan brogue of Carteret County natives. Some Beaufort residents hint that "Moreheaders" are a lower class of people while some Morehead natives expressed the idea that "Beauforters" are snobbish.

Most African-Americans residing in Morehead City are natives of the area. Throughout the last decades of the nineteenth and first decades of the twentieth centuries, numerous Black families moved into the area to seek work in the young, booming town. In fact, it is generally accepted that much of the town today was built on the efforts of Black laborers.

African-American women, particularly, have been important in local seafood packing houses, while men have formed the bulk of the labor force for the many menhaden fish oil factories and vessels. Today, while a few African-Americans have gained entry into good positions in local government, the local African-American community in general suffers with poverty, unemployment, teenage pregnancy, high school dropouts, rising crime and drug use. This is in large part due to the paucity of blue-collar industry in the region. As the area continues to court tourism, second-home owners and retirees, the low-income minority class of Morehead City and Beaufort are increasingly left out.

The non-native retirees of Morehead City are a growing sector of the population. Although most move to the Pine Knoll Shores section of Bogue Banks in the Morehead Township, some make their homes in Morehead City proper. According to the Chamber of Commerce, many retirees are from New Jersey, New York and Virginia. Others retire from upstate, and some return to the area after being stationed at Cherry Point at an earlier point in their lives. Retirees seem to be an active set of people. Many sign up for the Retired Senior Volunteer Program (RSVP) which is part of Carteret Community Action. Under this program, seniors volunteer their time at area institutions such as libraries, museums and the hospital. Many are active environmentalists, participating in turtle release programs, trash clean-up drives, and join the membership of the North Carolina Coastal Federation or Carteret County Crossroads. Favorite past-times seem to be golf, gardening, water color painting, fishing, beach walking and bird watching. Area retirees are also enjoying increasing political clout.

Another rapidly growing segment of the population is that of young, non-native middle to upper class families. This sector tends to reside in Morehead City subdivisions such as Mandy Farms and Brandywine Bay (which are also inhabited by retirees). Unlike retirees, the young non-natives tend to be professionals who moved into the area to work in the medical profession, law, education, marine science and other such well-paying occupations. Many are active in environmental issues and in the arts. They are most likely to enroll their children in area private schools such as St. Egberts or Newport Gramercy school. Some have expressed a general disdain for local "back room" politics, and it is common for them to shake their heads or roll their eyes at this or that school board or county commission issue and say "Well, that's Carteret County for you."

Overnight visitors to Morehead City proper tend to be those planning to charter a boat, fish off a head boat, or go scuba diving. Otherwise, those who plan on vacationing with their family are more likely to stay "on the beach" along Bogue Banks. However, Morehead City's waterfront seafood restaurants are renowned, and attract resident tourists from Bogue Banks to Beaufort.

***Environmental Values and Perceived Threats*** Sport fishermen might be said to have a water-oriented appreciation of the environment. While some may have a very visual/aesthetic appreciation of the natural world, they also exhibit a more technical knowledge in their care for fisheries populations and the goings-on underwater. Armed with the latest in sophisticated depth finders and fish finders, recreational fishermen have a

technical awareness of the bottom and whereabouts of fish. The most vocal angler interest groups appear to care about the environment as it relates to their targeted species and their sportfishing "way of life." Some groups from outside the county charged the menhaden industry with causing the decline of sport fisheries by "breaking the food chain." In public hearings held in Wilmington, Beaufort, and Morehead City, anglers and interest group representatives charged that commercial menhaden fishermen overfish the stocks and take the food of trophy fish, thereby "breaking the food chain:"

(We) are vitally concerned about the noticeable decline in the menhaden population in the past several years and the attendant decline in sports fish species that feed on them, namely tarpon, king mackerel, jacks, bluefish, etc. On behalf of these people, I make an urgent request that this fisheries commission adopt some meaningful regulations at this meeting that will put a stop to the continuing rape of this valuable baitfish chain (Garrity-Blake, in press).

Some anglers feel that commercial netting not only harms the environment, but poses a threat to the coastal economy by "holding back" recreational fishing. One angler stated at a public hearing:

If you break that food chain, you've started destroying your sports fishing . . . (but if) our fisheries improve in North Carolina, we'll have a continuing betterment for everybody's enjoyment, a better economy, and contribute more sales tax. But if (the fisheries) decline, it just goes in reverse (Garrity-Blake, in press).

A common argument made by anglers at public hearings is that sport fishing is "worth more" than commercial fishing, therefore policymakers should take heed and "protect" angler interests:

What this is all going to boil down to is the old philosophy of Democracy: majority rules. The needs of the many outweigh the needs of the few. Sportfishing is going to outvote commercial fishing. We can already do it. We outspend them too (Garrity-Blake, in press).

Even though some species are more heavily fished by recreational fishermen than commercially, anglers hold a view that their method of "hook and line" is ecologically sound, whereas fishing for profit is environmentally destructive (Garrity-Blake, in press). There is a sense of entitlement from the more vocal anglers that they have first rights to a public resource; many express resentment that commercial fishermen attempt to "profit off of



something that belongs to all of us." In a bulletin from the Sport Fishing Institute, it was stated:

People who desire to make commercial use of a shared public resource should be allowed to do so: (1) only after the citizenry as a whole has taken what it desires; and (2) only upon the payment of a fee devoted to the perpetuation of the resources, since they desire to profit monetarily from something that belongs to everyone (Garrity-Blake, in press).

It is evident that more are at issue than contested ideas of the natural environment and people's role in that environment, including a general order of society and how the world should work (Garrity-Blake, in press).

***Major Changes of the Last Decade*** Recent changes affecting Morehead City include structural changes at the community college, economic changes and infrastructural changes. Until about eight years ago, the college was known as "Carteret Technical College." This facility had a heavy vocational bent, offering programs in mechanics, welding, air conditioning repair, and so on. As Carteret Community College, the school began to phase out vocational classes and to develop a more academically oriented program and a transfer program to East Carolina University. Considering the number of blue-collar workers who have lost jobs in the past ten years, the elimination of many vocational programs has been a loss to the county.

Economically, Morehead City has become increasingly oriented to tourism, retirement and recreational services in the past ten years. Carteret County, according to a representative of the Economic Development Council, has lost some 1,200 jobs in manufacturing during this period. Blue-collar Black and white laborers have difficulty finding comparable work in the service sector, which tends to offer seasonal, low-paying jobs.

The most significant infrastructural change made in the past ten years is the building of the high-rise bridge from Morehead City to Atlantic Beach. This has alleviated the traffic congestion considerably, while helping to usher-in a greater density of seasonal visitors to Morehead as well as to Bogue Banks.

***Socioeconomic Status*** Morehead City, indeed, has its share of socioeconomic disparities; the symptoms of a growing underclass are increasingly evident: theft, drug use, violent crimes and vagrancy are more common in Morehead than in other county towns. In the African-American community last year, parents and church leaders organized a march against drug abuse, bringing much publicity to a growing problem in their neighborhood. The "Dare" program is active in all county schools in an attempt to head-off drug abuse by reaching fifth graders. The juxtaposition of Black communities near Crab Point and Mandy Farms and upscale country-club neighborhoods is a visible reminder of the vast differences in wealth which exist in Morehead City and surrounding areas. A Black social worker

expressed the need for better communication and shared responsibility between the "haves" and "have-nots," stressing that this distinction does not necessarily break down along racial lines.

In coastal communities such as Morehead City, booming tourism seems to most favor inside and outside investors who bring in chain restaurants, gift shops, retail stores and the like. Yet the problems that beset such communities affect all residents.

In coastal communities such as Morehead City, it is increasingly possible for "separate worlds" to exist in one place. Retirees and young, upscale residents on Bogue Banks can afford to care about the environment, perhaps perceiving little relationship between, say, the building of their condominiums on the beachfront and the decline of sea turtles they strive to protect.

Commercial fishermen and out-of-work blue collar laborers are primarily concerned with meeting bills and making a way for their children. They have difficulty sympathizing with the plight of natural species when they perceive their own immediate welfare to be at risk.

The very different "worlds" that exist in coastal communities are often evident at public hearings over fisheries issues, where beachfront property owners may object to the commercial netting of fish on environmental and aesthetic grounds, while fishermen cite economic needs and family tradition. At such meetings people of the same community often seem to talk past one another, almost in different languages. People ultimately are not arguing over coastal resources, but over their rights and place in the world as persons.

*Local Fish Harvesters* Morehead City appears to have the highest number of non-native fishermen in the county. Moreover, unlike Beaufort and especially Atlantic, Morehead fishworkers are not entirely native born "Downeasters," but hail from New England, Florida and even inland areas. On the basis of personal observations, there seems to be a high degree of non-native fishermen in the Morehead snapper-grouper fishery compared to fisheries such as shrimp and flounder. Perhaps this is due to the relatively recent entry of area fishermen in this type of fishery.

Native and non-native fishermen alike share the perception that "rich folks and sport fishermen" are primary causes of fishermen's woes. However, native-born fishermen tend to specify as to what kind of rich folks are "running them out": Yankees. Even "upstaters" or "people from Raleigh" are often assumed to be transplanted Yankees. Common are comments like "those spoiled damn Yankees, they run out of coast up north and now they want to come down here and run us out." Thus, to an extent, local fishermen make sense of the changing shape of their county and the changing nature of the economic base from a manufacturing to a service emphasis, in terms of a "Yankee invasion" (Garrity-Blake, in press). A fisherman explained:

Sport fishermen, they from up north, you take like on the fourth of July, thirtieth of May, we never fished that day because of the sport fishing, that was their day . . . and I don't think right now here, I believe they passed a law now that you can't fish out here on holidays, you know, 'cause of sport fishermen. That's their day (Garrity-Blake, in press).

***Property Values*** Property values have increased greatly in the past decade, particularly in non-municipal subdivision areas. Still, there is ample affordable property for trailers and small homes as well as ever-growing expensive areas.

***Natives Versus Newcomers*** Morehead City, like surrounding areas, is not immune from native-newcomer hostilities. Yet these sentiments are perhaps not as pronounced as in Atlantic and Beaufort. A greater tolerance of non-native residents may be linked to the town's original heterogeneity.

***Religion/Churches*** Morehead City has the most variety of churches in the county, including one Assembly of God, nine Baptist, one Catholic, one Church of Christ, one Jesus Christ of Latter Day Saints, one Episcopal, one inter-denominational, one Unitarian Universalist, one Jehovah's Witness, three Methodist, one Pentecostal Holiness, one United Pentecostal, one Presbyterian and one Nazarene.

The variety of churches reflects the diversity of people residing in or near Morehead City. In the past, Baptist and Methodist churches were more dominant in the area and one might assume native residents frequent these more than others. One of the largest congregations in Morehead is found at the Episcopal church, comprised of native and non-native members. The Catholic church also enjoys a large congregation, most of which is non-native. The Catholic church has a private school, but the majority of students are from families that are not members of the Catholic church; rather, they choose the school for its academic excellence.

***Clubs, Service Organizations, and Other Voluntary Associations*** There are a number of social service-type organizations based or active in Morehead City. These include Alcoholics Anonymous, Caring Connections (a cancer support group), the Diabetic Support Group, the American Red Cross, the Carteret Literacy Council, Disabled American Vets, Hospice of Carteret County, the Carteret Senior Center and the Station Club (training and finding employment for handicapped persons).

Professional/business service clubs in Morehead are the Rotary Club, designed to foster community service among businessmen; the Kiwanis Club, providing service in vocational guidance and social aid; and the Lion's Club, devoted to citizenship, civic improvement and aid to the underprivileged and handicapped. The Chamber of Commerce has its branch organization "Jaycees," with members limited to those between the ages of twenty-one and thirty-six. The Jaycees are concerned with "community betterment."

Fraternal organizations are the Masons, a secret, non-sectarian benevolent society devoted to community service and providing death benefits to members; the Shriners, a service organization of the Masons, the Order of the Eastern Star, a Masonic organization for the wives, daughters, sisters and mothers of Masons; and the Order of the Elks.

Organizations for the arts in Morehead are the Carteret Community Theater, the Carteret County Arts Council, the Carteret County chapter of the North Carolina symphony and Carteret Writers.

The organization that gets the most publicity is the Bald Headed Men of America, which holds a bald-headed men's convention. The group annually receives national media coverage.

***Interest Groups*** For a description of Carteret County Crossroads, North Carolina Coastal Federation and Carteret County Clean Committee, see subsection 3.7.8.1 of this report. These groups are not based in Morehead City but undertake projects/issues relating to Morehead City and surrounding areas and have members/participants who live in Morehead. The North Carolina Coastal Federation is most powerful on a regional level, and Carteret County Crossroads has considerably clout at the local level. Both have highly educated people among their membership with training in science and policy, and neither tries to engage in divisiveness and emotionalism when dealing with opposing groups, but strives to present fact-driven recommendations. Carteret Crossroads played a strong role in opposing Atlantic Beach's proposal to pipe treated waste water to Open Grounds Farm.

Developmental interest groups include the Carteret County Economic Development Council and the Chamber of Commerce; both Morehead organizations promote active and potential industries in Carteret County. The Carteret County Waterman's Association, a trade group for commercial fishermen that was active until very recently, operated out of Morehead. The Carteret County Board of Realtors is based in Morehead City, as is Women At Work, promoting women in professions.

Recreational interest groups include Carteret County Ducks Unlimited, a hunting and fishing/conservation organization; and the Carteret County Sportfishing Association, which meets in Atlantic Beach but has high Morehead membership. This organization promotes the Ladies King Mackerel tournament, "take a kid fishing" program and the establishment of artificial reefs. The Carteret County Sportfishing Association has maintained good relations with area commercial fishing interests.

Political interest groups in the study area include the Crystal Coast Republican Women's Club and the Democratic Women of Carteret County (based in Pine Knoll Shores). Presently, both the Democratic and Republican headquarters for the county are located in Morehead City.

### 3.8.8.3 Social and Cultural Issues

***The Economy*** Key informants in Morehead City often discuss their current economic status and the status of other city residents compared to years past. Informants cite the decline in local job opportunities and the attendant rise in social service dependencies, drug use and crime as economic problems. The root of these social problems is perceived to be the declining number of decent paying blue-collar jobs.

Few informants view tourism as the answer to the wage-labor problem and people emphasized that tourism is seasonal and low-paying, while year-round manufacturing jobs with decent pay and employee benefits were desperately needed. Recent lay-offs at the state port at Atlantic Veneer, past closings of the Conner mobile home plant, Bluebell apparel and the recent closing of Diversified Concrete Products were cited. A member of the county development council in Morehead described the difficulty in attracting new industry and the ramifications this had for blue collar workers:

Stringent environmental regulations hurt minority people the most, by impeding our ability to attract non-polluting industry. . . Eighty percent of the county is deemed wetlands and therefore have stringent regulations attached to it . . . New businesses are discouraged by the lack of sufficient land with infrastructure in place for their companies, so they go to the Piedmont . . . There are too many permits required here. This burdens our social service population, which experiences high infant mortality, high poverty and high unemployment.

This informant went on to describe the Endangered Species Act, which is behind the recent National Marine Fisheries Service ruling requiring Turtle Excluder Devices, as being "a terrible act because it factors in nothing socioeconomic." Some informants likened the coast in recent years to a "playground" for the wealthy and the retired, with nothing for "real families with bills to pay." An academic at the community college felt new business was reluctant to come because of the "beach party bingo" reputation of the Crystal Coast:

there's a perception that coastal residents prefer beachgoing to working. It's unfortunate, because we have the permanent population that rarely goes to the beach and is desperately looking for decent employment. Also, company reps come here for vacation; who wants to open a factory in the middle of his own playground?

***Overdevelopment*** There is a significant local concern for the status of the wetlands, maritime forests, sand dunes, estuarine waters and fisheries resources that surround

Morehead City. These are perceived to be stressed by a growing population and attendant increase in construction, sewage and general pollution.

There was a perception that city and county planners and decision-makers were not adequately planning for development in a way that would not be detrimental to the environment. Lack of foresight was mentioned, as was the presence of "good old boy" politicking.

One Morehead fish dealer discussed what he perceived to be the delicate nature of the environment and the need to balance environmental protection with economic development. He was distrustful of big industry and did not feel that was the answer to Morehead's economic woes:

I sit here at my desk and watch those pelicans diving. I love that. I can go out on the dock during certain times of the year and see straight down to the bottom to the oysters. I see a need to balance the economy with the protection of the environment. But you take an industry like offshore oil. I was a nuclear start-up engineer for 14 years. The commercial nuclear industry is very, very regulated. But it still has potential for disaster. The oil industry is not nearly as regulated as the nuclear industry, but the potential for disaster is huge. This is a notoriously bad-weather area . . . There is an inability to plan and safeguard here . . . You can't guarantee no environmental damage. If oil companies can prove to me that no bad effects will occur, I'll think about it twenty or thirty years and get back to them.

***Over-regulation of Fisheries*** Often the "regulation" of the marine fisheries is perceived to mean unnecessary and counter-productive regulation as opposed to effective and needed regulation. One snapper-grouper fisherman expressed his personal frustration:

It costs the boat between three and four hundred dollars in expenses just to leave the dock . . . even if the weather takes a bad turn and we return with no fish. On top of that we got all these regs that are absurd. A red snapper this size, if you can believe it, is undersized. By the time we get it aboard, it's very dead. Yet we're supposed to throw it overboard, regardless. A fish this size could feed some poor sucker who can't afford to eat . . . like me. And the Coast Guard regulations . . . they're more in the business of harassment these days than search and rescue . . . and you have wealthy sportfishermen who are doctors and lawyers who are pushing us out so they can have their sport.

According to some informants, what ultimately suffers by over-regulation is "the whole seafood industry that's going right down the tubes." Several Morehead commercial fishermen, like those in Atlantic, attributed over-regulation as a ploy to eradicate commercial fishermen so "rich people can have all the resources to themselves . . . they'd just as soon we import all our seafood." But there is also the perception that sport and commercial fishermen were ultimately in the same boat, as "one gets shot down, the other's soon to follow." Many felt that policymakers made little attempt to work with fishermen and felt exasperated after attending public hearings. A tackle shop owner offered his perceptions:

There is a lack of communication between policymakers and fishermen. There is no dialogue at public hearings. No effort to consult fishermen. A refusal to communicate with fishermen. Not only does the local economy suffer, but a social heritage is being destroyed.

The issue of Turtle Excluder Devices (TEDs) frequently was named as a locally important issue. One informant felt the TED problem stemmed from shrimpers refusing to comply with this regulation and thereby endangering sea turtles: "They don't want to use TEDs and they need to use TEDs."

Some informants felt the problem was the government imposing an unworkable regulation on small-scale Core Sound fishermen; putting "the lives of turtles over the lives of men." A seventy-four year old local woman was very concerned with the TEDs issue: "The TEDs will destroy livelihoods. Livelihoods are more important than turtles."

A fish dealer discussed the recent winter when flounder fishermen reportedly got contradictory and confusing orders regarding TEDs and federal observers:

Do you see any flounders around here? Nobody's messing with them because of that TED fiasco. Who can afford to keep up with that? Lots of boys are still shrimping in South Carolina; others are catching and landing their flounder up north where the regulation isn't in effect. So here we are with nothing this winter. This is not only hurting dealers, but the fuel docks, the ice houses, the net makers and on and on. Look around here this winter. Believe me, this makes a big difference around here, a difference for the worst; the whole economy suffers.

### **3.8.9 Summary**

Morehead City is more diversified, in economic terms, than the other study communities. This ensures more overall stability should one or another sector experience problems. Still, more than informants in either of the other Carteret County study communities, Morehead residents feel that a lack of new jobs is the primary problem facing their community today. Thus, while the community has more categories of employment opportunities, it is clear that some sectors, i.e., blue collar, are suffering. Morehead is generally facing more urban problems than surrounding communities: unemployment, drug use, crime and general poverty are on the rise. Informants felt the power to change the community for the better rested in the hands of planners and other local government officials.



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**APPENDIX: INFRASTRUCTURE AND POTENTIAL LANDFALL SITES**



## **APPENDIX A: INFRASTRUCTURE AND POTENTIAL LANDFALL SITES**

Two areas have been identified as potential landfall facilities for support of oil production activities, if they occur, in the area offshore of North Carolina. These are the ports of Hampton Roads, Virginia, and Morehead City, North Carolina. This appendix provides basecase data to help characterize these potential landfall sites.

The two ports are treated quite differently in this appendix in terms of the level of detail of the data presented. Data regarding Morehead City as a whole may be found in the main body of this community studies volume (it was one of the communities selected to be characterized in detail) as well as in the county studies volume (i.e., the Carteret County chapter). The Morehead City data in this appendix are intended to supplement the more comprehensive data presented elsewhere; specifically, it is the intent of the Morehead City section of this appendix to provide a description the community's port facilities and activities (to the exclusion of data appearing elsewhere). On the other hand, this appendix provides more comprehensive data for Hampton Roads. Like the Morehead City section, the description of Hampton Roads is focussed on infrastructure and port activities in order to facilitate port-specific impact analysis, if required, at a later date. Unlike Morehead City, however, contextualizing data for Hampton Roads have not been developed and presented elsewhere in the Coastal North Carolina Socioeconomic Study Program series, and so are presented here. These data are not intended to provide a full description of a large, complex metropolitan area, rather, they are intended only to provide an interpretive context to allow the development of a sense of scale vis-a-vis the relative importance of port activities to the communities and region of Hampton Roads.

Data for Hampton Roads are presented in Section A.1. Section A.2 provides data for Morehead City.

### **A.1 HAMPTON ROADS**

Description of existing economic conditions and industrial production constitutes the most important consideration in base case characterization of the Norfolk/Hampton Roads area. The Norfolk/Hampton Roads area is a world-renowned urban port and houses hundreds of industries and numerous military facilities. Given these facts, and the large size of the area in terms of population (approximately 1.4 million) and geography, analysis of industrial production and economic configuration of the area will necessarily be general in coverage.

The majority of the data presented in this section are in tabular form for ease of reader access. The wealth of data available for the metropolitan area of Hampton Roads is formidable. Although the outline of this section follows the outline for data presentation developed for the study communities found in the main body of this Community Studies Volume (as well as the parallel county outline followed in the presentations in the County Studies Volume), multi-jurisdictional complexity and a tight study focus have kept narrative data presentation for Hampton Roads to an absolute minimum.

### **A.1.1 Introduction**

In the late 17th century, when the region was a British colonial outpost, the name "Hampton Roads" was given to what is commonly referred to as the world's largest natural harbor where the James, Nansemond, and Elizabeth Rivers empty into the mouth of the Chesapeake Bay. "Hampton" derives from one of the founders of the Virginia Company and early supporters of the colonization of Virginia, Henry Wriothesley, the third Earl of Southampton. Signifying the safety of a port, "roads" in nautical terminology means "a place less sheltered than a harbor where ships may ride at anchor" (Forward Hampton Roads nd).

### **A.1.2 Background and History**

Hampton Roads has been the site of commercial maritime and port activities since the first English colonialists settled at Jamestown on the James River in 1607. At first, the colonialists depended almost exclusively on supplies brought by sea from England; as the local countryside was cleared and brought into agricultural production, products of the colony, including the still economically important tobacco crop, were sent by sea to English markets (Virginia Port Authority nd:1).

While the vessels of the early 1600s were capable of sailing directly to plantations located on the numerous creeks and rivers in the area to deliver supplies and accept return cargoes, as early as 1640 efforts were made to establish ports where ships could call to deliver and receive cargoes (and where taxes could readily be assessed and collected). Because of its proximity to the original colony, one of the first major ports developed was Hampton. In 1682, Norfolk was established, based on its favorable location for seaborne trade (Virginia Port Authority nd:1).

Today, waterborne commerce remains a cornerstone of the region, and the 75 square mile ice-free harbor is served by 50-foot deepwater channels with extensive port facilities. The Port of Hampton Roads is composed of both publically and privately owned facilities. Over 70 shipping lines, which call at 251 ports in 100 nations, serve the port and approximately 5,300 ships call at its piers each year (Virginia Port Authority nd:2). According to a study done by Old Dominion University, shipments through the port in 1990 supported an estimated 116,760

jobs, \$2.4 billion in wages, and \$273 million in taxes. This represented an increase over the previous year of approximately 2,900 jobs, \$100 million in wages, and \$7.6 million in taxes. Also in 1990, the Port of Hampton Roads handled 70.5 million tons of foreign waterborne commerce, more than any other port in the United States for a second consecutive year.

### A.1.3 Physical Geography and Land Use

The term "Hampton Roads" is often used to refer to the metropolitan area around the body of water named Hampton Roads. There is no city or county of Hampton Roads, however, and the term has been used to include different portions of the area when used by different entities; to further complicate comparisons, definitions of inclusion have changed over time.

The two largest areas commonly referred to as "Hampton Roads" are (1) the fourteen jurisdictions in the Hampton Roads Planning District (HRPD) and (2) the fifteen cities and counties in the Metropolitan Area (MA) as defined by the federal Office of Management and Budget (OMB), formally known as the Norfolk, Virginia Beach, Newport News, Virginia-North Carolina Metropolitan Statistical Area (MSA).<sup>1</sup> These areas overlap to a considerable degree, but each includes jurisdictions not included in the other. There are also a number of terms that are in common use locally that refer to smaller aggregates of jurisdictions within the greater Hampton Roads area. The following table presents these terms and their constituent jurisdictions; these are then displayed graphically in the immediately following maps.

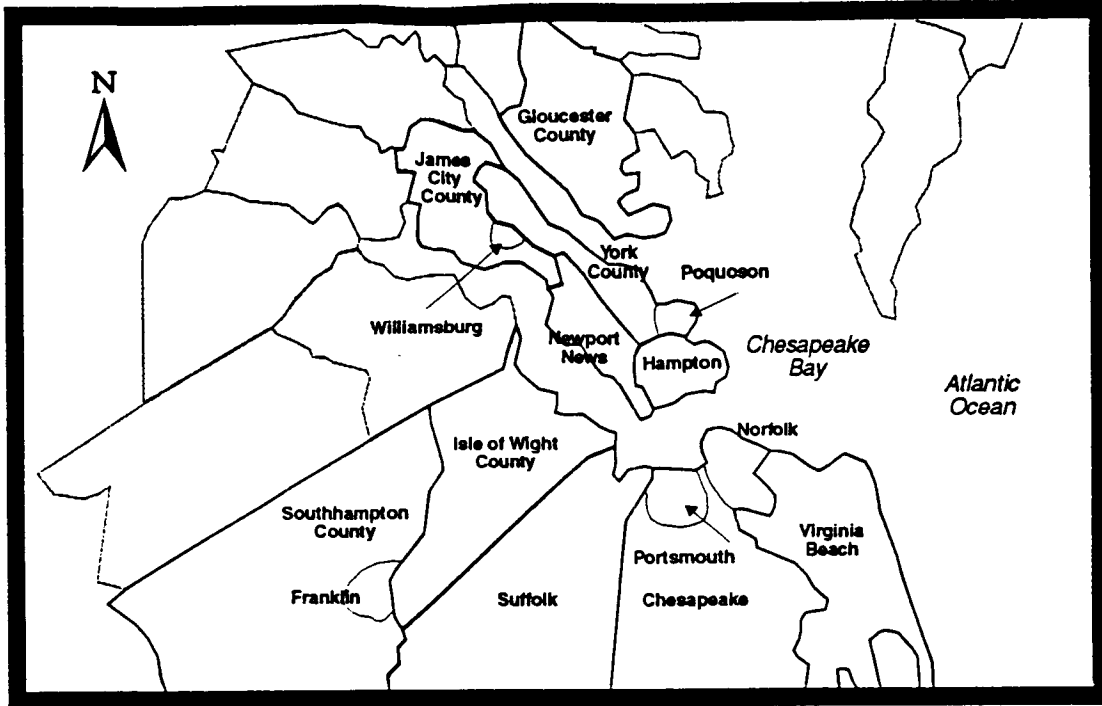
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<sup>1</sup> The MA classification is a statistical standard that OMB defines and applies to geographic areas having a large population nucleus together with adjacent communities having a high degree of economic and social integration with that nucleus. The OMB designates areas with more than one million population that meet certain other requirements (i.e., commuting patterns) as "consolidated metropolitan statistical areas" (CMSAs), and defines their component areas as "primary metropolitan statistical areas" (PMSAs). It designates all other metropolitan areas as "metropolitan statistical areas" (MSAs), and refers to the entire set of areas as MAs. The MA for Hampton Roads was redefined in 1993, enlarging from 12 to 15 cities and counties, including for the first time a portion of North Carolina (Currituck County). It was also renamed at this time, adding "Virginia-North Carolina" to the end of the former name to reflect expansion over the state line (the name of the MSA is based on the most populous cities or counties and employment) (HRPDC 1993:1).

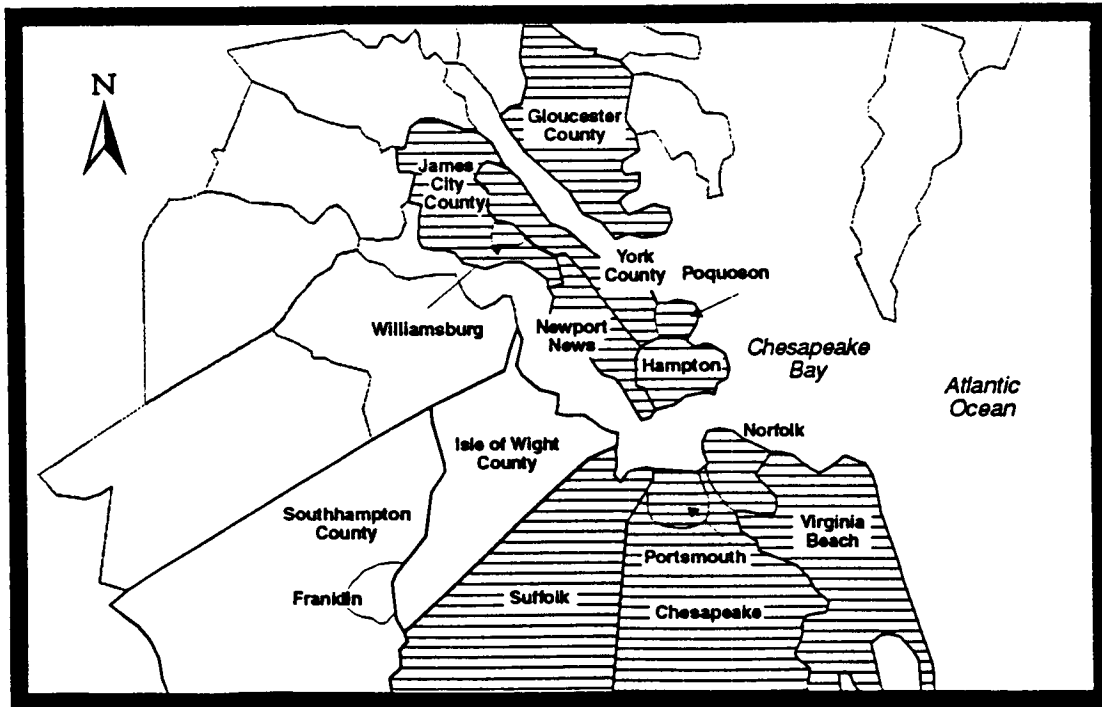
Table A.1-1  
**HAMPTON ROADS AREAL DEFINITIONS**  
 Coastal North Carolina Socioeconomic Study

Aggregate Area Term	Constituting Jurisdictions
South Hampton Roads	Chesapeake, Norfolk, Portsmouth, Suffolk, and Virginia Beach
Southeastern Virginia	South Hampton Roads plus Franklin, Isle of Wight County, and Southampton County
Peninsula [aka Virginia Peninsula]	Hampton, Newport News, Poquoson, Williamsburg, James City County, and York County
Hampton Roads (area covered by Hampton Roads Planning District)	Southeastern Virginia and the Peninsula
Norfolk, Virginia Beach, Newport News Metropolitan Statistical Area (MSA) [aka Hampton Roads MSA] as defined 1983-1993	Peninsula, South Hampton Roads, and Gloucester County
Norfolk, Virginia Beach, Newport News, Virginia - North Carolina Metropolitan Statistical Area (MSA) [aka Hampton Roads MSA] redefined as of 1993	Peninsula, South Hampton Roads, and Gloucester, Isle of Wight, and Mathews Counties (Virginia) plus Currituck County, North Carolina
Source: HRPDC 1992c:1.	

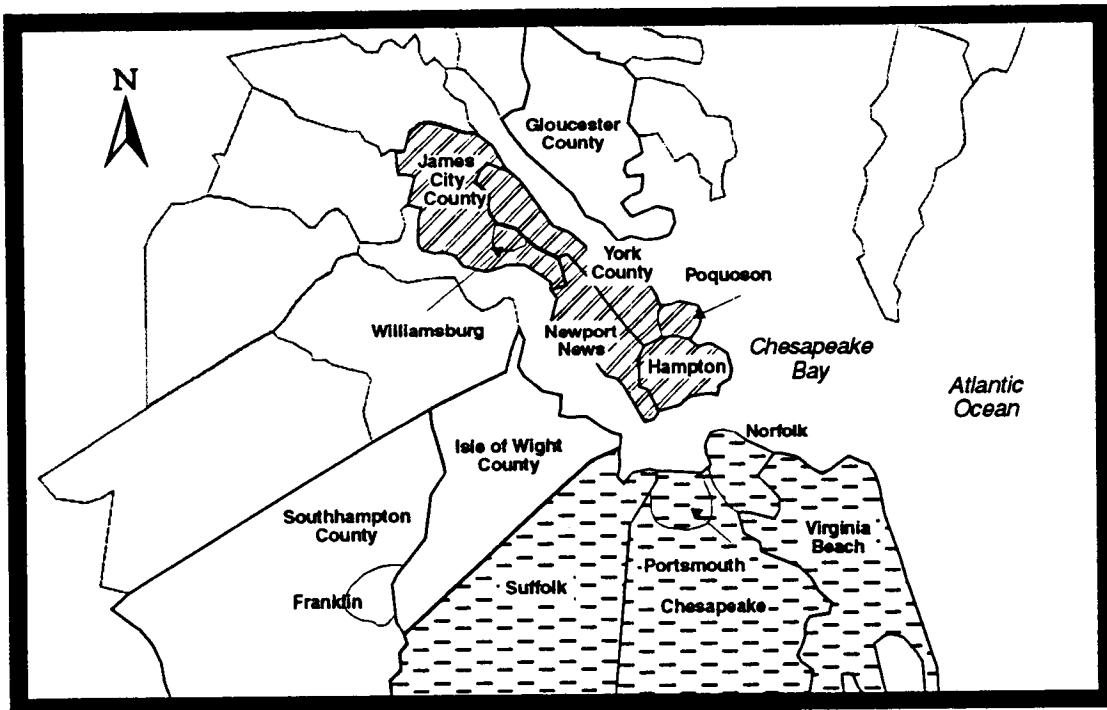
# Hampton Roads Area



# Norfolk, Virginia Beach, Newport News MSA (Pre-1993)



## The Peninsula & South Hampton Roads

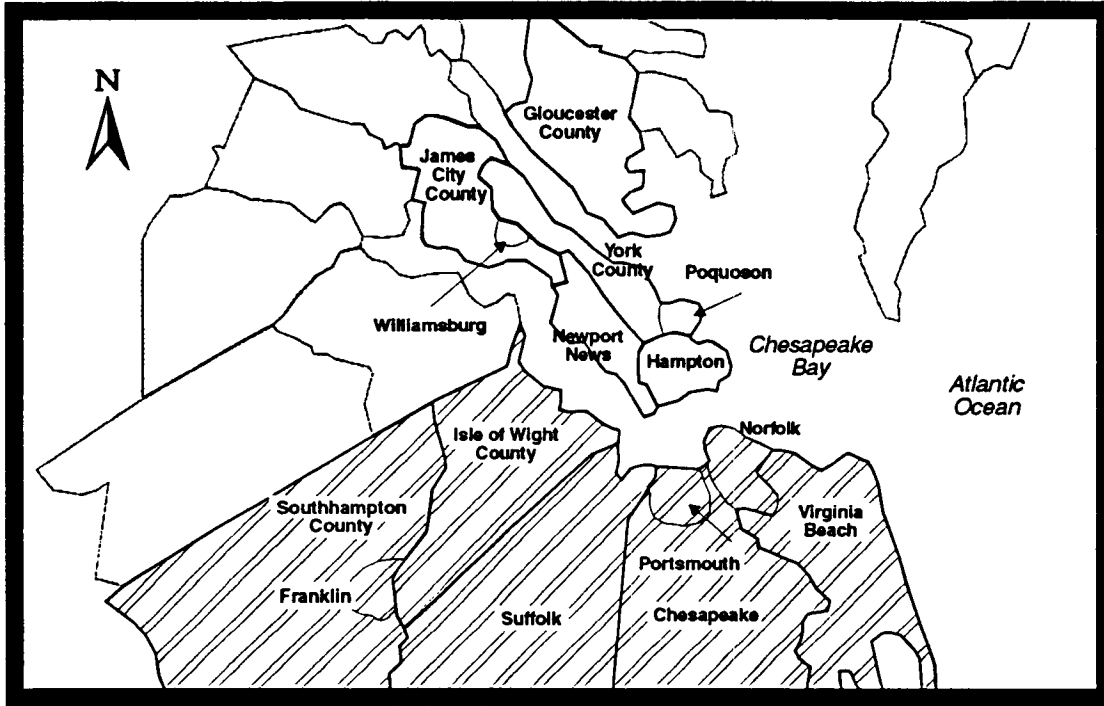


The Peninsula

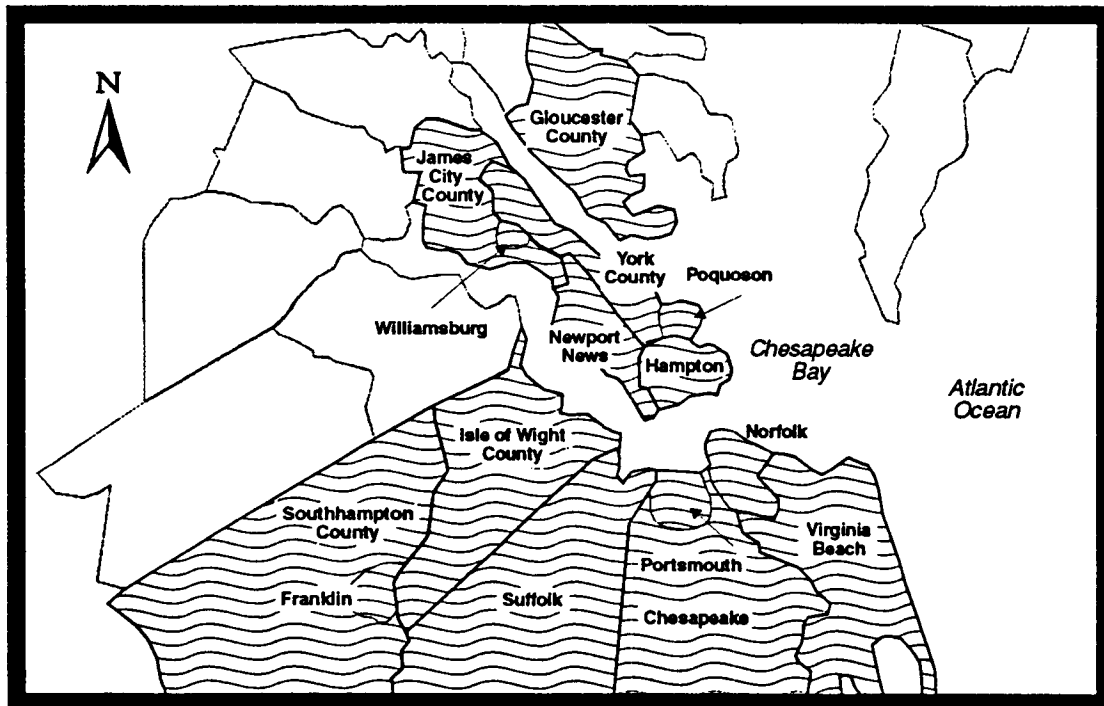


South Hampton Roads

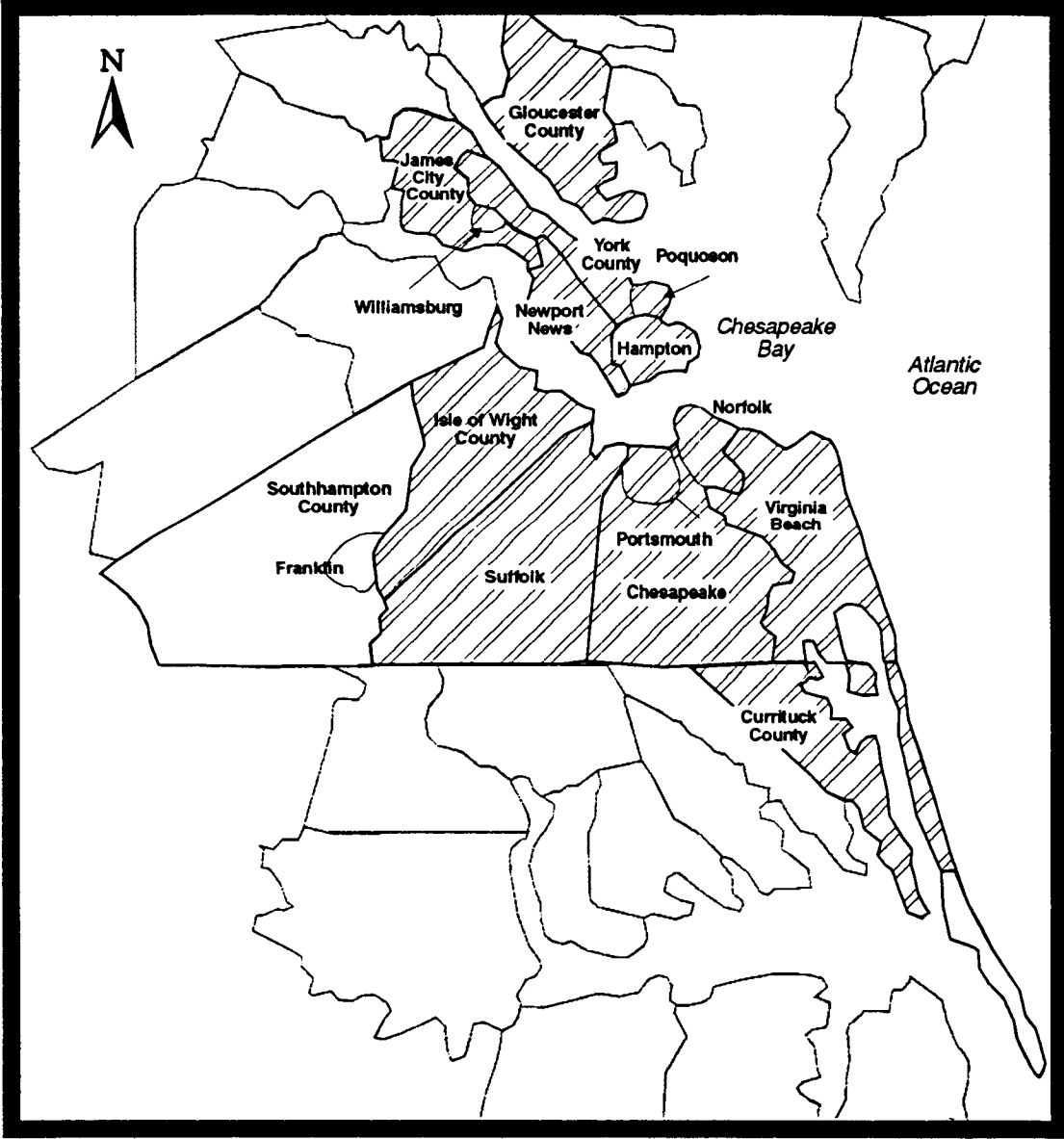
# Southeastern Virginia



# Hampton Roads



Norfolk, Virginia Beach, Newport News MSA (1993)





**Table A.1-2**  
**SOUTH HAMPTON ROADS GENERAL STATISTICS**  
**Coastal North Carolina Socioeconomic Study**

Jusidiction	Area (sq mi)	Population (1990)	Households (1990)	Median Family Income (1990)	Unemployment Rate (1990)	Civilian Labor Force (1990)
Suffolk	430	52,141	20,167	\$34,731	6.1%	26,841
Chesapeake	353	151,976	54,602	\$38,468	4.3%	74,648
Virginia Beach	310	393,069	138,772	\$38,666	4.0%	170,736
Norfolk	64	261,229	91,277	\$25,536	4.8%	97,647
Portsmouth	45.5	103,907	43,195	\$28,880	6.4%	50,801
Total, South Hampton Roads	1,202.5	962,322	348,013			420,673

Source: U.S. Bureau of the Census, Center for Public Service and Virginia Employment Commission, as cited in Hampton Roads Chamber of Commerce, May 1991.

## A.1.4 Demographics

### A.1.4.1 Population History and Residence Patterns

Table A.1-3 HAMPTON ROADS POPULATION TRENDS Coastal North Carolina Socioeconomic Study	
Year	Population
1960	881,553
1970	1,058,764
1980	1,160,311
1985	1,280,100
1987	1,358,000
1988	1,388,100
1990	1,396,107

Source: Center for Public Service, University of Virginia, as cited in Media General Business Communications 1992: 49.

Table A.1-4 HAMPTON ROADS TOTAL POPULATION COMPARISONS: 1970-1990 Coastal North Carolina Socioeconomic Study			
Area	1970	1980	1990
Virginia	4,651,448	5,346,818	6,187,358
Hampton Roads	1,058,764	1,160,311	1,396,107
Chesapeake	89,580	114,486	151,976
Norfolk	307,951	266,979	261,229
Portsmouth	110,963	104,577	103,907
Suffolk	45,024	47,621	52,141
Virginia Beach	172,106	262,199	393,069

Source: U.S. Bureau of the Census, as cited in Forward Hampton Roads nd:1.

**Table A.1-5  
HAMPTON ROADS TOTAL POPULATION CHANGE: 1970-1990  
Coastal North Carolina Socioeconomic Study**

Area	1970-1980		1980-1990	
	Population Change	% Change	Population Change	% Change
Virginia	695,370	14.9%	840,540	17.7%
Hampton Roads	101,547	9.6%	235,796	20.3%
Chesapeake	24,906	27.8%	37,490	32.7%
Norfolk	-40,972	-13.3%	-5,750	-2.2%
Portsmouth	-6,386	-5.8%	-670	-0.6%
Suffolk	2,597	5.8%	4,520	9.5%
Virginia Beach	90,093	52.3%	130,870	49.9%

Source: U.S. Bureau of the Census, as cited in Forward Hampton Roads nd:1.

**Table A.1-6  
HAMPTON ROADS TOTAL POPULATION  
DISTRIBUTION: 1990  
Coastal North Carolina Socioeconomic Study**

Area	Percentage
Virginia Peninsula	31.1%
Virginia Beach	28.2%
Norfolk	18.7%
Chesapeake	10.9%
Portsmouth	7.4%
Suffolk	3.7%
Hampton Roads	100.0%

Source: U.S. Bureau of the Census, as cited in Forward Hampton Roads nd:1.

Table A.1-7 HAMPTON ROADS LAND AREA, POPULATION, AND POPULATION DENSITY Coastal North Carolina Socioeconomic Study			
Year	Land Area in Square Miles	Population	Persons per Square Mile
1980	2,393	1,188,243	497
1990*	2,393	1,417,907	593

\*1990 figures reflect adjusted census count.  
Source: HRPDC 1992a:5.

Table A.1-8 HAMPTON ROADS INTRA-YEAR POPULATION ESTIMATES Coastal North Carolina Socioeconomic Study			
Year	January Population Estimates	July Population Estimates	January to December Population Change
1980	1,187,873	1,188,243	12,850
1985*	1,295,450	1,302,800	23,950
1990**	1,414,720	1,417,907	NA

\*1985 figures supplied by the Center for Public Service at the University of Virginia.  
\*\*1990 figures reflect adjusted census count.  
Source: HRPDC 1992a:7,9,11.

<p style="text-align: center;">Table A.1-9  HAMPTON ROADS SELECTED POPULATION STATISTICS  Coastal North Carolina Socioeconomic Study</p>						
Year	Live Births by Place of Residence	Birth Rate per Thousand in January Population	Deaths by Place of Residence	Death Rate per Thousand in January Population	Natural Increase	Net Migration
1980	20,284	17.1	8,909	7.5	11,375	1,475
1985	23,583	18.2	9,344	7.2	14,239	9,711
1990	25,245	17.8	10,183	7.2	15,062	-15,062
Source: HRPDC 1992a:13,15,17,19,21,23.						

<p style="text-align: center;">Table A.1-10  HAMPTON ROADS POPULATION PROJECTIONS  Coastal North Carolina Socioeconomic Study</p>	
Year	Population
1995	1,551,900
2000	1,669,200
Source: Virginia Department of Planning and Budget, as cited in Media General Business Communications 1992: 50.	

A.1.4.2 Current Population Composition

Table A.1-11 HAMPTON ROADS MSA 1990 CENSUS POPULATION COMPOSITION: SEX AND AGE Coastal North Carolina Socioeconomic Study		
Sex/Age	Number of Persons	Percent of Total Population
Male	699,968	50.1
Female	696,139	49.9
Under 5 years	116,708	8.4
5 to 17 years	252,064	18.0
18 to 20 years	80,056	5.7
21 to 24 years	112,572	8.1
25 to 44 years	485,666	34.8
45 to 54 years	124,705	8.9
55 to 59 years	49,796	3.6
60 to 64 years	48,433	3.5
65 to 74 years	79,792	5.7
75 to 84 years	36,342	2.6
85 years and over	9,973	0.7
Median Age	29.7	
Under 18 years	368,772	26.4
18 to 64 years	901,228	64.5
65 years and over	126,107	9.0
Total Population	1,396,107	100.0
Note: Total Housing Units = 537,101 Source: Selected Population and Housing Characteristics, Table 1-Summary of STF 1A, 1990 Census Data; adapted from HRPDC 1992c:2.		

<p style="text-align: center;">Table A.1-12  HAMPTON ROADS MSA 1990 CENSUS POPULATION COMPOSITION:  RACE AND HISPANIC ORIGIN  Coastal North Carolina Socioeconomic Study</p>		
Race	Number of Persons	Percent of Total Population
White	947,160	67.8
Black	398,093	28.5
American Indian, Eskimo, or Aleut	4,679	0.3
Asian or Pacific Islander	35,205	2.5
Other race	10,970	0.8
Hispanic origin (of any race)	32,329	2.3
Total Population	1,396,107	100.0
<p>Note: Total Housing Units = 537,101  Source: Selected Population and Housing Characteristics, Table 1-Summary of STF 1A, 1990 Census Data; adapted from HRPDC 1992c:2.</p>		

### A.1.4.3 Household Patterns

Table A.1-13 HAMPTON ROADS MSA 1990 CENSUS: HOUSEHOLDS BY TYPE Coastal North Carolina Socioeconomic Study		
Household Type	Number	Percent of Total Households
Family Households (families)	358,161	72.7
Married-couple families	(277,293)	(56.2)
Other family, male householder	(15,985)	(3.2)
Other family, female householder	(64,883)	(13.1)
Nonfamily households	135,375	27.4
Householder living alone	(104,250)	(21.1)
Other nonfamily households	(31,125)	(6.3)
Total Households	493,536	100.0
Notes: Persons living in households = 1,329,407; Persons per household = 2.69; Householder 65 years or older = 32,937.		
Source: Selected Population and Housing Characteristics, Table 1-Summary of STF 1A, 1990 Census Data; adapted from HRPDC 1992c:2.		



**Table A.1-14**  
**HAMPTON ROADS MSA 1990 CENSUS: RACE AND HISPANIC ORIGIN OF**  
**HOUSEHOLDER**  
 Coastal North Carolina Socioeconomic Study

Race or Hispanic Origin of Householder	Number of Occupied Units	Percent of Total Occupied Units
White	349,284	70.8
Black	131,545	26.7
American Indian, Eskimo, or Aleut	1,580	0.3
Asian or Pacific Islander	8,229	1.7
Other Race	2,898	0.6
Hispanic Origin (of any race)	(8,957)	(1.8)
<b>Total</b>	<b>493,536</b>	<b>100.0</b>

Source: Selected Population and Housing Characteristics, Table 1-Summary of STF 1A, 1990 Census Data; adapted from HRPDC 1992c:2.

**Table A.1-15**  
**HAMPTON ROADS MSA 1990 CENSUS: GROUP QUARTERS**  
 Coastal North Carolina Socioeconomic Study

Group Quarters Type	Number of Persons	Percent of Total in Group Quarters
Institutions	13,498	20.3
Other	53,202	79.7
<b>Total</b>	<b>66,700</b>	<b>100.0</b>

Source: Selected Population and Housing Characteristics, Table 1-Summary of STF 1A, 1990 Census Data; adapted from HRPDC 1992c:2.

**Table A.1-16**  
**HAMPTON ROADS MSA 1990 CENSUS: OCCUPANCY AND TENURE**  
 Coastal North Carolina Socioeconomic Study

Occupancy/Tenure	Number of Units	Percent of Total Units
Occupied housing units	493,536	91.9
Owner occupied	(290,703)	(54.1)
Renter occupied	(202,833)	(37.8)
Vacant housing units	43,565	8.1
For seasonal, recreational, or occasional use	(3,197)	(0.6)
Other vacant	(40,368)	(7.5)
<b>Total housing units</b>	<b>537,101</b>	<b>100.0</b>
Notes: Homeowner vacancy rate = 3.3% Rental vacancy rate = 9.3% Persons per owner-occupied unit = 2.77 Persons per renter-occupied unit = 2.58 Units with over 1 person per room = 16,340 or 3.0% of total		
Source: Selected Population and Housing Characteristics, Table 1-Summary of STF 1A, 1990 Census Data; adapted from HRPDC 1992c:2.		

<b>Table A.1-17</b> <b>HAMPTON ROADS MSA 1990 CENSUS: UNITS IN STRUCTURE</b> <b>Coastal North Carolina Socioeconomic Study</b>		
Type of Structure	Number of Units	Percent of Total Units
1-unit, detached	302,559	56.3
1-unit, attached	55,894	10.4
2 to 4 units	51,952	9.7
5 to 9 units	51,759	9.6
10 or more units	55,751	10.4
Mobile home, trailer, other	19,186	3.6
<b>Total units</b>	<b>537,101</b>	<b>100.0</b>
Source: Selected Population and Housing Characteristics, Table 1-Summary of STF 1A, 1990 Census Data; adapted from HRPDC 1992c:2.		

<p style="text-align: center;">Table A.1-18            HAMPTON ROADS MSA 1990 CENSUS: VALUE OF OWNER-OCCUPIED            HOUSING UNITS            Coastal North Carolina Socioeconomic Study</p>		
Value of Unit	Number of Units	Percent of Total Units
Less than \$50,000	19,857	7.8
\$50,000 to \$99,999	147,034	58.0
\$100,000 to \$149,999	53,069	20.9
\$150,000 to \$199,999	18,449	7.3
\$200,000 to \$299,999	9,902	3.9
\$300,000 or more	5,000	2.0
Total Units	253,311	100.0
<p>Note: median value = \$87,000</p>		
<p>Source: Selected Population and Housing Characteristics, Table 1-Summary of STF 1A, 1990 Census Data; adapted from HRPDC 1992c:2.</p>		

<p style="text-align: center;">Table A.1-19            HAMPTON ROADS MSA 1990 CENSUS: CONTRACT RENT            Coastal North Carolina Socioeconomic Study</p>		
Rent	Number of Units	Percent of Total Units
Less than \$250	30,657	16.1
\$250 to \$499	117,731	62.0
\$500 to \$749	36,653	19.3
\$750 to \$999	3,210	1.7
\$1,000 or more	1,635	0.9
Total Units	189,886	100.0
<p>Note: median rent = \$398; all data for renters paying cash rent.</p>		
<p>Source: Selected Population and Housing Characteristics, Table 1-Summary of STF 1A, 1990 Census Data; adapted from HRPDC 1992c:2.</p>		

<b>Table A.1-20</b> <b>HAMPTON ROADS SINGLE AND MULTIFAMILY BUILDING PERMITS</b> Coastal North Carolina Socioeconomic Study	
Year	Permits
1980	5,836
1985	19,754
1990	7,967
1991	7,237

Source: Cities of Hampton Roads, as cited in HRPDC 1992b:74.

<b>Table A.1-21</b> <b>HAMPTON ROADS RESIDENTIAL BUILDING PERMITS ISSUED</b> Coastal North Carolina Socioeconomic Study			
Year	Single Family Units	Apartment Units	Total Units
1990	6,234	1,844	8,078
1991	5,783	1,503	7,286

\*Source: Builders and Contractors Exchange, Inc. and Virginia Peninsula Economic Development Council, as cited in Media General Business Communications 1992:10.

## A.1.5 Economy

### A.1.5.1 Economic Sectors and Major Employers

Table A.1-22 HAMPTON ROADS MSA EMPLOYMENT Coastal North Carolina Socioeconomic Study			
Sector	1980	1985	1990
Farm	2,713	2,379	1,777
Agricultural Services, Forestry, Fishing	3,371	3,799	5,556
Mining	160	208	163
Construction	33,017	45,508	48,573
Manufacturing	64,332	70,219	68,500
Transportation and Public Utilities	25,479	27,688	31,080
Wholesale Trade	21,613	24,383	26,833
Retail Trade	87,534	114,256	132,927
Finance, Insurance, and Real Estate	31,637	39,181	47,167
Services	118,688	150,828	191,694
Government (Federal Civilian)	235,767 (55,079)	255,705 (57,786)	275,997 (59,129)
(Military)	(115,096)	(132,428)	(138,566)
(State and Local)	(65,592)	(65,491)	(78,302)
Total	624,311	734,154	830,267
Source: Bureau of Economic Analysis, U.S. Department of Commerce as cited in HRPDC 1992a:81.			

**Table A.1-23**  
**SOUTH HAMPTON ROADS NON-AGRICULTURAL CIVILIAN EMPLOYMENT BY PLACE: 1989**  
 Coastal North Carolina Socioeconomic Study

Sector	Chesapeake	Norfolk	Portsmouth	Suffolk	Virginia Beach
Retail Trade	22.1%	17.3%	15.7%	18.6%	29.0%
Government: Federal, State & Local	21.6%	21.4%	47.0%	20.5%	14.8%
Services	17.5%	26.6%	18.8%	19.3%	28.4%
Construction	15.4%	4.8%	2.9%	6.1%	9.0%
Manufacturing	9.6%	9.5%	6.0%	18.3%	3.9%
Transportation, Communication & Public Utilities	5.1%	7.2%	4.6%	5.2%	3.9%
Wholesale Trade	5.1%	6.9%	2.4%	8.7%	4.7%
Finance, Insurance & Real Estate	3.4%	6.2%	2.4%	3.2%	6.2%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Hampton Roads Chamber of Commerce, May 1991.

<b>Table A.1-24</b> <b>HAMPTON ROADS MILITARY EMPLOYMENT</b> <b>Coastal North Carolina Socioeconomic Study</b>	
Year	Employees
1980	115,206
1985	132,554
1990	138,688
Source: Bureau of Economic Analysis, as cited in HRPDC 1992b:59.	

<b>Table A.1-25</b> <b>PORT OF GREATER HAMPTON ROADS MAJOR EMPLOYERS</b> <b>Coastal North Carolina Socioeconomic Study</b>	
Number of Employees	Employer
Over 25,000	Newport News Shipbuilding
Over 12,000	Norfolk Naval Shipyard
Over 2,000	Busch Gardens' The Old Country C&P Telephone Colonial Williamsburg Foundation Langley Research Center (NASA) Naval Aviation Depot Norfolk Shipbuilding and Drydock Corp. Riverside Healthcare System Sentara Health Systems Sovran Financial Corp. U.S. Naval Hospital Union Camp



<p style="text-align: center;">Over 1,000</p>	<p style="text-align: center;"> Anheuser-Busch, Inc.  Beverly Enterprises  Canon Virginia, Inc.  DePaul Hospital  Eastern Virginia Medical School  Farm Fresh  Food Lion  Ford Motor Company  Gwaltney of Smithfield  Howmet Corp.  Landmark Communications  Lillian Vernon Corp.  Maryview Hospital  New Hampton, Inc.  Norfolk Southern Corp.  Seafood Company, Inc.  Seimens Automotive  Smithfield Packing </p>
<p style="text-align: center;">Over 500</p>	<p style="text-align: center;"> Computer Dynamics Corp.  Daily Press, Inc., The  Dan Daniels Distribution Center (AAFES)  General Foam Plastics Corp.  Household Finance Corp.  J.L. Associates  Martin &amp; Richardson Seafood, Inc.  Mary Immaculate Hospital  Metro Machine Corp.  Navy Management Systems Support Ofc.  New Hampton, Inc.  Obici Hospital  QVC Network, Inc.  Shoney's, Inc.  Southland Industries  Sturgis Newport Group, Inc.  Stewart Sandwiches  Systems Management American Corp.  Tarmac Virginia Holdings, Inc.  Virginia Power  Williamsburg Pottery Factory, Inc. </p>
<p style="text-align: center;">Over 200</p>	<p style="text-align: center;">84 firms</p>
<p>Note: In addition, there are over 100 manufacturing plants employing 100 or more persons.  Source: Hampton Roads Maritime Association 1992:120-122.</p>	

**Table A.1-26**  
**HAMPTON ROADS AND VIRGINIA NON-RESIDENTIAL BUILDING PERMITS**  
**Coastal North Carolina Socioeconomic Study**

Year	Virginia Permits	Hampton Roads Permits	Hampton Roads as a percent of Virginia
1981	8,256	2,411	25.3%
1985	10,049	2,943	29.3%
1990	10,572	2,823	26.7%

\*Source: Center for Public Service, as cited in Media General Business Communications 1992:12.

### A.1.5.2 Contribution by Sector

Table A.1-27 HAMPTON ROADS MSA EARNINGS BY EMPLOYMENT SECTOR (Figures are in Thousands of Dollars) Coastal North Carolina Socioeconomic Study			
Sector	1980	1985	1990
Farm	(839)	15,217	41,643
Agricultural Services, Forestry, Fishing	28,716	37,998	79,284
Mining	18,606	23,484	12,805
Construction	515,812	904,836	1,164,669
Manufacturing	1,186,299	1,814,282	2,094,493
Transportation and Public Utilities	473,561	690,063	901,368
Wholesale Trade	358,982	540,383	745,435
Retail Trade	738,654	1,175,644	1,565,925
Finance, Insurance, and Real Estate	290,180	453,441	727,747
Services	1,282,819	2,245,629	3,814,342
Government	3,337,136	5,231,432	6,824,974
(Federal Civilian)	(1,059,854)	(1,494,980)	(1,820,055)
(Military)	(1,505,962)	(2,567,372)	(3,182,600)
(State and Local)	(771,320)	(1,169,080)	(1,822,319)
<b>Total</b>	<b>8,229,926</b>	<b>13,132,409</b>	<b>17,972,690</b>
Source: Bureau of Economic Analysis, U.S. Department of Commerce as cited in HRPDC 1992a:83-84.			

Table A.1-28 HAMPTON ROADS TOTAL NET FARM PROPRIETORS INCOME Coastal North Carolina Socioeconomic Study	
Year	Income (Thousands of Dollars)
1981	\$31,310
1985	\$15,982
1990	\$58,178
Source: U.S. Department of Commerce, Bureau of Economic Analysis, as cited in HRPDC 1992b:56.	

Table A.1-29 HAMPTON ROADS RETAIL SALES Coastal North Carolina Socioeconomic Study	
Year	Retail Sales (Millions of Dollars)
1980	\$4,136.10
1985	\$7,076.30
1990	\$8,661.90
1991	\$8,564.60
Source: Virginia Department of Taxation, as cited in HRPDC 1992a:131-132.	

<b>Table A.1-30</b> <b>HAMPTON ROADS RETAIL SALES COMPOUND ANNUAL GROWTH RATES</b> Coastal North Carolina Socioeconomic Study	
Years	Compound Annual Growth Rate
1975-1980	9.6%
1980-1990	7.7%
1990-1991	-1.1%
1975-1991	7.7%

Source: Virginia Department of Taxation, as cited in HRPDC 1992a:134.

<b>Table A.1-31</b> <b>DEPARTMENT OF DEFENSE WAGES AND SALARIES IN HAMPTON ROADS</b> Coastal North Carolina Socioeconomic Study	
Years	Wages and Salaries (Millions of Dollars)
1983	2,952.4
1985	3,267.4
1990	4,147.7
1991	4,422.9

Note: Estimates are for fiscal year outlays and include gross compensation. This covers salaries and wages, housing allowances, and all other personnel compensation except retirement military pay. It does not include considerable non-cash benefits such as free medical care. Amounts for military personnel stationed overseas are excluded from totals.

Source: U.S. Bureau of the Census, Consolidated Federal Funds Report; Vol. 1, County Areas, as cited in HRPDC 1992b:82.

<b>Table A.1-32</b> <b>TOTAL DEPARTMENT OF DEFENSE EXPENDITURES OR</b> <b>OBLIGATIONS IN HAMPTON ROADS</b> <b>Coastal North Carolina Socioeconomic Study</b>	
Years	Expenditures or Obligations (Millions of Dollars)
1983	7,609.2
1985	5,746.0
1990	8,115.2
1991	6,621.4
Source: U.S. Department of Commerce, Consolidated Federal Funds Report; Vol. 1, County Areas, as cited in HRPDC 1992b:58.	

<b>Table A.1-33</b> <b>DEPARTMENT OF DEFENSE PROCUREMENT CONTRACT</b> <b>AWARDS IN HAMPTON ROADS</b> <b>Coastal North Carolina Socioeconomic Study</b>	
Years	Contract Awards (Millions of Dollars)
1983	4,333.6
1985	2,064.9
1990	3,409.7
1991	1,597.2
Source: U.S. Bureau of the Census, Consolidated Federal Funds Report; Vol. 1, County Areas, as cited in HRPDC 1992b:81.	

<b>Table A.1-34</b> <b>HAMPTON ROADS REAL AND PERSONAL PROPERTY TAX COLLECTIONS</b> Coastal North Carolina Socioeconomic Study			
Year	Real Property Tax	Personal Property Tax	Total Tax
1981	\$173,688.9	\$49,759.3	\$223,448.2
1985	\$263,011.1	\$96,273.5	\$359,284.6
1990	\$486,779.1	\$155,517.8	\$642,296.9

Source: HRPDC 1992a:207.

<b>Table A.1-35</b> <b>HAMPTON ROADS TAXABLE SALES BY BUSINESS CLASSIFICATION, 1991</b> Coastal North Carolina Socioeconomic Study	
Business Classification	Taxable Sales (thousands of dollars)
Apparel	554,102
Food	3,847,139
Lumber, Building Materials	732,908
General Merchandise	1,392,798
Furniture, Home Furnishings	478,492
Automotive	461,940
Motels, Hotels	410,702
<b>Total Sales</b>	<b>8,492,498</b>

Source: Virginia Department of Taxation, as cited in Media General Business Communications 1992:55.

Table A.1-36 HAMPTON ROADS OFFICE VACANCY RATES, BY SUBAREA, JANUARY 1991 Coastal North Carolina Socioeconomic Study	
Area	Vacancy Rate
South Hampton Roads	18.7%
Peninsula	28.9%
Hampton Roads	21.1%
Source: Goodman Segar Hogan, Inc., as cited in HRPDC 1992b:41.	

### A.1.5.3 Workforce and Unemployment

Table A.1-37 LABOR FORCE AND EMPLOYMENT BY PLACE OF RESIDENCE, HAMPTON ROADS Coastal North Carolina Socioeconomic Study				
Year	Civilian Labor Force	Employment	Unemployment	Unemployment Rate
1980	497,583	470,705	26,878	5.4%
1985	573,994	544,816	29,178	5.1%
1990	629,381	599,274	30,107	4.8%
1991	653,726	613,760	39,966	6.1%
1992 (Jan)	645,157	3,063,767	235,462	7.1%
Source 1980-1991: U.S. Department of Labor, Bureau of Labor Statistics, Historical Report on Labor Force and Unemployment, as cited in HRPDC 1992a:112. Source 1992: Virginia Employment Commission, as cited in HRPDC 1992b:17.				



Table A.1-38 HAMPTON ROADS NON-AGRICULTURAL CIVILIAN EMPLOYMENT ANNUALIZED MEASURES Coastal North Carolina Socioeconomic Study		
Years	Average Annual Change	Compound Annual Growth Rate
1970-1980	8,699	1.9%
1980-1991	12,576	2.9%
1970-1991	10,730	2.4%
Employment 1970=358,297; 1980=445,288; Sept 1991=583,625. Source: HRPDC 1992b:6.		

Table A.1-39 HAMPTON ROADS AGRICULTURAL EMPLOYMENT COMPOUND ANNUAL GROWTH RATES Coastal North Carolina Socioeconomic Study	
Years	Compound Annual Growth Rate
1980-1985	-2.9%
1985-1990	-5.6%
1980-1990	-4.3%
Employment 1980=4,472; 1985=3,864; 1990=2,889. Source: HRPDC 1992b:57.	

Table A.1-40 HAMPTON ROADS CIVILIAN LABOR FORCE BY RACE/ETHNIC GROUP Coastal North Carolina Socioeconomic Study				
Race/Ethnic Group	Percent of Civilian Labor Force	Percent of Total Employed	Percent of Total Unemployed	Unemployment Rate
White	72.3%	73.6%	52.9%	3.3%
Black	25.1%	23.8%	44.0%	7.9%
Native American	0.2%	0.2%	0.2%	5.8%
Asian	1.1%	1.1%	0.9%	3.7%
Other	0.1%	0.1%	0.2%	7.4%
Hispanic*	1.2%	1.1%	1.8%	7.0%
Total	100.0%	100.0%	100.0%	

\*note: Persons of Hispanic origin may be of any race.  
Source: Virginia Employment Commission, as cited in Forward Hampton Roads, April 1992.

Labor availability in the Hampton Roads area is influenced by a number of factors in addition to the base number of permanent residents in the area. According to Forward Hampton Roads, the economic development arm of the Hampton Roads Chamber of Commerce, there are five additional major sources of labor that important to the region. These are exiting military personnel, military spouses, college students, extra-regional commuters, and seasonal workers.

Table A.1-41 HAMPTON ROADS ADDITIONAL LABOR FORCE COMPONENTS Coastal North Carolina Socioeconomic Study		
Category	Number	Comments
Existing Military Personnel	10,000-12,000	The area contains the world's largest naval base; 10,000 to 12,000 locally based service personnel are discharged or retire annually.
Military Spouses	40,000-50,000	An estimated 40,000-50,000 military spouses reside in South Hampton Roads and are full- or part-time employed when jobs are available (average local tour of duty is approximately 3 years).
College Students	45,000	The typical urban and community college student is 19-23 years old, lives at home and works full- or part-time to earn college expenses.
Extra-Regional Commuters	13,500	Traffic counts indicate that approximately 13,500 cars cross into South Hampton Roads from North Carolina and outlying counties on a daily basis. Although it is not possible to identify the destination or purpose of these travellers, it may be assumed that many commute to South Hampton Roads for work as many area employers report these commuters on their payroll.
Seasonal Workers	10,000	The tourism industry in South Hampton Roads generates approximately 10,000 seasonal jobs during the peak months of May through August.
Source: Forward Hampton Roads, April 1992		

#### A.1.5.4 Income

Table A.1-42 HAMPTON ROADS MSA PER CAPITA INCOME COMPARISONS Coastal North Carolina Socioeconomic Study				
Year	Per Capita Income	Annual Percent Change	MSA as a Percent of Virginia	MSA as a Percent of U.S.
1980	\$9,051	12.8%	92.1%	91.2%
1985	\$13,198	6.5%	91.4%	94.7%
1990	\$16,613	4.0%	84.3%	88.9%
Source: U.S. Department of Commerce, Bureau of Economic Analysis, as cited in HRPDC 1992a:64.				

Table A.1-43  
**HAMPTON ROADS MSA AVERAGE EARNINGS PER WORKER  
 BY EMPLOYMENT SECTOR**  
 (Figures are in Dollars)  
 Coastal North Carolina Socioeconomic Study

Sector	1980	1985	1990
Farm	(309)	6,396	23,434
Agricultural Services, Forestry, Fishing	8,519	10,002	14,270
Mining	116,288	112,904	78,558
Construction	15,623	19,883	23,978
Manufacturing	18,440	25,837	30,577
Transportation and Public Utilities	18,586	24,923	29,002
Wholesale Trade	16,610	22,162	27,781
Retail Trade	8,438	10,290	11,780
Finance, Insurance, and Real Estate	9,172	11,573	15,429
Services	10,808	14,889	19,898
Government (Federal Civilian)	14,154 (19,242)	20,459 (25,871)	24,728 (30,781)
(Military)	(13,084)	(19,387)	(22,968)
(State and Local)	(11,759)	(17,851)	(23,273)
<b>Total</b>	<b>13,182</b>	<b>17,888</b>	<b>21,647</b>

Source: Bureau of Economic Analysis, U.S. Department of Commerce as cited in HRPDC 1992a:68.

**Table A.1-44**  
**HAMPTON ROADS SECTOR AVERAGE EARNINGS EXPRESSED AS A PERCENT OF AVERAGE MSA**  
**EARNINGS FOR ALL WORKERS**  
**Coastal North Carolina Socioeconomic Study**

Sector	1980	1985	1990
Farm	-2.3%	35.8%	108.3%
Agricultural Services, Forestry, Fishing	64.6%	55.9%	65.9%
Mining	882.1%	631.2%	362.9%
Construction	118.5%	111.2%	110.8%
Manufacturing	139.9%	144.4%	141.3%
Transportation and Public Utilities	141.0%	139.3%	134.0%
Wholesale Trade	126.0%	123.9%	128.3%
Retail Trade	64.0%	57.5%	54.4%
Finance, Insurance, and Real Estate	69.6%	64.7%	71.3%
Services	82.0%	83.2%	91.9%
Government	107.4%	114.4%	114.2%
(Federal Civilian)	(146.0%)	(144.6%)	(142.2%)
(Military)	(99.3%)	(108.4%)	(106.1%)
(State and Local)	(89.2%)	(99.8%)	(107.5%)
Total	100.0%	100.0%	100.0%
Source: Bureau of Economic Analysis, U.S. Department of Commerce as cited in HRPDC 1992a:72.			

<b>Table A.1-45</b> <b>HAMPTON ROADS INCOME AND EARNINGS</b> <b>Coastal North Carolina Socioeconomic Study</b>	
Year	Total Personal Income (Millions of Dollars)
1980	\$10,561
1985	\$16,957
1990	\$23,616

Source: U.S. Department of Commerce, Bureau of Economic Analysis, as cited in HRPDC 1992a:65-66.

<b>Table A.1-46</b> <b>HAMPTON ROADS MEDIAN HOUSEHOLD INCOME</b> <b>Coastal North Carolina Socioeconomic Study</b>		
Year	Number of Households	Median Household Income
1989	490,887	\$29,176
1990	519,323	\$30,324
1991	531,821	N/A

Note: A household is made up of all persons who occupy a house, room, group of rooms, or an apartment that constitutes a housing unit.  
Source: Center for Public Service, University of Virginia "Projections of Virginia Family and Household Income by Locality," as cited in Media General Business Communications 1992:22.

Table A.1-47 HAMPTON ROADS MEDIAN FAMILY INCOME Coastal North Carolina Socioeconomic Study		
Year	Number of Families	Median Family Income
1989	365,987	\$34,530
1990	385,972	\$35,186
1991	393,834	N/A

Note: A family is made up of all related persons who occupy a residence.  
Source: Center for Public Service, University of Virginia "Projections of Virginia Family and Household Income by Locality," as cited in Media General Business Communications 1992:23.

#### A.1.5.5 Economic Issues and Trends

The Hampton Roads Planning District Commission in June, 1992 published their "1992 HRPDC Economic Outlook," which provides an overview of the regional economy. The following is a verbatim reproduction of the main body of the executive summary of that document:

- *The regional recession ended in 1991. During the recession, regional employment contracted by 1.1 percent. Locally, the 90-91 recession was more severe than the recession of 1982, but was not as severe as the recession of 1975.*
- *From 1982 to 1991, regional employment increased at a compound annual rate of 3.1 percent. The service sector of the economy grew the fastest during this time period with a compound annual growth rate 5.7 percent, with the manufacturing sector grew the slowest with only a 0.4 percent compound annual growth rate.*
- *In 1990, the fourteen jurisdictions of Hampton Roads had a combined population of 1,417,907 persons. Since 1980 regional population has grown at a compound annual rate of 1.8 percent. This is greater than the compound annual growth rate of 0.9 percent for the United States during the same period.*

- *The decelerating trend of rising per capita income growth in Hampton Roads came to an end in 1990. Per capita income in Hampton Roads increased 4.0 percent from \$15,975 in 1989 to \$16,613 in 1990. However, after an adjusting for inflation, per capita income in Hampton Roads declined by 1.3 percent from 1989 to 1990.*
- *After adjusting for inflation, retail sales in Hampton Roads declined by 5.1 percent from 1990 to 1991. This represents an increase in the rate of decline of retail sales. Since 1987 real retail sales in Hampton Roads have declined at a compound annual rate of 3.1 percent.*
- *Single and multifamily building permits issued in Hampton Roads declined 9.2 percent from 1990 to 1991. Single and multifamily building permits issued on the Peninsula increased 13.5 percent from 1990 to 1991, while on the southside they declined 20.6 percent during the same time period.*
- *The overbuilding of commercial space in the 1980s continued to be a hindrance to the regional commercial construction industry in 1991. The value of non-residential building permits issued in Hampton Roads declined 13.0 percent from \$588 million in 1990 to \$512 million in 1991.*
- *The number of single family homes under contract in Hampton Roads declined for the fifth consecutive year in 1991. In 1990 there were 19,265 single homes under contract. By 1991 this number had declined to 18,957. This is equivalent to a 1.6 percent decline.*
- *Tourist activity in Hampton Roads made a modest comeback from the decline in 1990. Hotel revenues at the oceanfront achieved a record \$63 million during the summer, while restaurant sales registered \$111 million. Occupancy rates for the first nine months of 1991 were 64 percent, which is a 1.0 percent increase from 1990.*
- *Hampton Roads convention business in 1991 was mixed. The number of conventions in Norfolk declined 16.3 percent which caused convention revenue to drop by 8.0 percent. Virginia Beach had a 12.9 percent decrease in the number of conventions it hosted, and a subsequent 6.4 percent decline in convention revenue. Hampton experienced a 68.3 percent increase in conventions for the year.*
- *The volume of general cargo moving through the Port of Hampton Roads increased 2.6 percent from 1990 to 1991. General cargo exports rose by 305,000 tons from 1990 to 1991, while general cargo imports decreased by 122,000 tons during the same period.*



- *Coal loadings at the Port of Hampton Roads increased by 5.2 percent to a record level of 65.1 million tons in 1991. By the end of the century, future demand for coal is projected to contribute an additional \$400 million to the regional economy.*
- *During the 1980s, Hampton Roads' full and part time farm employment declined at an annual compound rate of 4.3 percent. The rate of decline is higher than both the State of Virginia and the United States rates, which declined at compound annual rates of 3.1 percent and 2.1 percent, respectively.*
- *Defense spending in Hampton Roads is vital to the regional economy. A study by Employment Research Associates estimates that the average family in Hampton Roads receives \$14,600 per year because of military spending in the region, with the average American family pays \$3,000 per year to support military spending.*
- *President Bush's proposed FY 93 defense budget calls for \$267.7 billion in spending, with a planned \$50 billion cut in defense spending through FY 97. These cuts could force the defense subcontracting industry to cut employment by 500,000 persons by 1995.*
- *With the completion of the I-664 bridge tunnel and the opening of the interstate connecting Chesapeake and Suffolk directly to the Peninsula, growth in the tri-cities of Chesapeake, Suffolk, and Portsmouth is expected to increase. Local officials estimate the growth in population in this area will be between 30,000 and 50,000 within 20 years. (Hampton Roads Planning District Commission 1992:i-iii)*

<p align="center"><b>Table A.1-48</b>  <b>HAMPTON ROADS NEW NON-MANUFACTURING BUSINESS, ANNOUNCED IN 1991</b>  <b>Coastal North Carolina Socioeconomic Study</b></p>			
<b>Company</b>	<b>Service</b>	<b>Location</b>	<b>Projected Employment</b>
Aqua-Cool	Filtered water products	Newport News	20
Bath Iron Works Corp.	Shipbuilding Support	Norfolk	4
Burris Refrigerated Services	Public refrigerated warehouse	Chesapeake	20
Business Funding	Financial services	James City County	25
Coastal Window & Door Inc.	Building materials	Virginia Beach	4
Dalfort Aircraft Technology Inc.	Aviation maintenance training	Virginia Beach	35
Innovative Technologies of America Inc.	Fiber optics & telecommunications	Virginia Beach	15
Kay Uniforms Inc.	Municipal uniform distributor	Portsmouth	7
MAP Mobile Communications Inc.	Nationwide communications	Chesapeake	55
Peterson Builders Inc.	Shipbuilding supply and logistics	Virginia Beach	17
Pioneer Enterprises Inc.	Ship repair and maintenance	Norfolk	35
U Cycle Recycling Center	Recycling	Virginia Beach	4
UniStar Air Cargo	Freight forwarding and air cargo	Virginia Beach	2
VASA America Inc.	Kitchen cabinets, furniture hardware	Virginia Beach	5
Wacker Chemical	(U.S. headquarters) Chemical products	James City County	10

Source: Forward Hampton Roads and Virginia Peninsula Economic Development Council, as cited in Media General Business Communications 1992:28.

Perhaps the largest immediate economic issue facing Hampton Roads is the uncertainty of the ramifications of the current round of military "downsizing." Given the size of the military facilities and related workforce in the area, the direct, indirect, and induced economic impacts of the military on the regional economy are enormous. Federal defense spending in Virginia as a whole in 1991 was \$17 billion. Only California and Texas experienced larger overall expenditures; Virginia was first in the nation in defense expenditures and obligations on a per capita basis (\$2,785) in 1991 (HRPDC 1992:ii). Like Virginia as a whole, Navy spending easily outdistanced the spending of the other services. Total Department of Defense (DOD) spending in Hampton Roads was \$6.6 billion in 1991; Norfolk led the region in receiving \$2.9 billion of the total, followed by Virginia Beach and Newport News with \$1.2 billion and \$795 million, respectively (HRPDC 1992:ii). Naval Station Norfolk is the nation's largest military base with some 66,284 persons assigned to it; seven of the nation's 60 largest stateside bases (in terms of permanently assigned active duty personnel) are in Hampton Roads. South Hampton Roads has 114,120 active duty and reserve military personnel in 1990, while the Peninsula had 24,265; the great majority of the area's military personnel are found in just four cities -- Norfolk (79,072), Virginia Beach (27,496), Hampton (10,827), and Newport News (10,661) (HRPDC 1992:ii).

#### **A.1.6 Locally Active Government Institutions**

##### **A.1.6.1 Planning**

There are several planning and information-gathering entities that operate on a multi-jurisdictional level in the Hampton Roads area. Several of the major entities are presented in the following table; each is a rich source of socioeconomic data on the region as a whole. In addition these quasi-governmental entities, a number of private enterprises compile regional data for planning purposes and publish annual reports.

**Table A.1-49**  
**HAMPTON ROADS REGION PLANNING AND INFORMATION ENTITIES**  
 Coastal North Carolina Socioeconomic Study

Entity	Address	Comments
Hampton Roads Planning District Commission	The Regional Building 723 Woodlake Drive Chesapeake, VA 23320 (804) 420-8300 (804) 523-4881 fax	Many regional level documents are available; these cover the 14 jurisdictions within the planning district. Both annual and special publications are available.
Forward Hampton Roads/ Hampton Roads Chamber of Commerce	555 Main Street 1214 First Virginia Tower Norfolk, VA 23510 (804) 627-2315 (804) 623-3031 fax	Forward Hampton Roads is the economic development arm of the Chamber of Commerce. Annual reports and special publications are available.
Hampton Roads Maritime Association	236 East Plume Street PO Box 3487 Norfolk, VA 23514 (804) 622-2639	This entity publishes an annual titled "The Port of Greater Hampton Roads" containing a wealth of data on port infrastructure and activity.

Source: Field contact.

A.1.6.2 Education

Table A.1-50 HAMPTON ROADS AREA PUBLIC SCHOOLS, 1991-1992 Coastal North Carolina Socioeconomic Study						
Locality	Elementary	Intermediate	High Schools	Centers*	Pupils	Operating Budget (dollars)
Chesapeake	26	7	5	6	30,266	136,041,692
Hampton	24	5	4	1	21,900	90,850,655
Newport News	26	7	4	1	29,800	121,000,000
Norfolk	37	8	5	11	37,000	165,500,000
Poquoson	2	1	1	0	2,314	10,123,355
Portsmouth	16	4	5	3	18,408	77,666,410
Suffolk	10	3	2	2	9,100	41,800,000
Virginia Beach	51	10	8	6	72,386	292,008,280
Williamsburg/ James City County	5	2	1	1	6,400	34,200,000
York County	10	3	3	1	9,729	40,516,346
*note: includes special education, adult, and other free-standing centers. Source: Public information officers in each school district, as cited in Media General Business Communications 1992:20.						

**Table A.1-51**  
**HAMPTON ROADS COLLEGES AND UNIVERSITIES, 1991-1992**  
**Coastal North Carolina Socioeconomic Study**

Institution	Enrollment		Personnel		Annual Budget (dollars)
	Full-time	Part-time	Faculty	Staff	
College of William and Mary	6,615	1,095	667	2,298	101,033,000
Commonwealth College	1,774	299	61	131	14,000,000
Eastern Virginia Medical School	478	0	212	977	100,000,000
Hampton University	5,500*	N/A	390	850	60,000,000
Christopher Newport University	2,906	2,128	137	171	21,552,000
Norfolk State University	8,298	1,665	381	607	67,000,000
Old Dominion University	10,708	6,021	616	1,011	125,000
Regent University	896	253	83	371	15,000,000
Thomas Nelson Community College	1,975	5,921	314	115	13,485,235
Tidewater Community College	4,844	13,292	318	224	31,697,379
Virginia Wesleyan College	1,129	311	83	178	14,686,000

\*note: includes both full- and part-time students.

Source: College public information officers, as cited in Media General Business Communications 1992:18.

**A.1.7 Physical Infrastructure: Transportation**

Table A.1-52 HAMPTON ROADS BRIDGE-TUNNEL TRAFFIC, HAMPTON ROADS Coastal North Carolina Socioeconomic Study		
Year	Total Vehicles	Daily Average
1981	17,846,208	48,893
1985	22,878,100	62,679
1990	27,178,500	74,462
1991	27,624,100	75,682

Note: main artery connecting the Peninsula and Southside Hampton Roads  
 Source: Virginia Department of Motor Vehicles, as cited in Media General Business Communications 1992:61.

Table A.1-53 CHESAPEAKE BAY BRIDGE-TUNNEL TRAFFIC, HAMPTON ROADS Coastal North Carolina Socioeconomic Study		
Year	Total Vehicles	Daily Average
1981	1,751,225	4,797
1985	2,053,038	5,624
1990	2,639,304	7,210
1991	2,658,711	7,284

Note: connects Virginia Beach with the Eastern Shore of Virginia.  
 Source: Virginia Department of Motor Vehicles, as cited in Media General Business Communications 1992:62.

Table A.1-54 POUNDS OF AIR CARGO HANDLED, HAMPTON ROADS NORFOLK INTERNATIONAL AIRPORT Coastal North Carolina Socioeconomic Study			
Year	Express	Mail	Freight
1981	1,484,571	4,921,797	16,338,954
1985	2,185,553	6,169,541	27,859,035
1990	15,263,073	11,746,200	51,401,198
1991	17,510,411	11,024,412	46,507,015

Source: Norfolk Airport Authority and Peninsula Airport Commission, as cited in Media General Business Communications 1992:62.

Table A.1-55 POUNDS OF AIR CARGO HANDLED, HAMPTON ROADS NEWPORT NEWS/WILLIAMSBURG INTERNATIONAL AIRPORT Coastal North Carolina Socioeconomic Study			
Year	Express	Mail	Freight
1981	0	5,701	355,163
1985	0	0	6,194,444**
1990	0*	5,776	284,286
1991	7,075	7,744	386,480

\*included in regular freight  
 \*\*reflects addition of air cargo service  
 Source: Norfolk Airport Authority and Peninsula Airport Commission, as cited in Media General Business Communications 1992:62.



Table A.1-56 AIRPORT PASSENGERS, NORFOLK INTERNATIONAL AIRPORT Coastal North Carolina Socioeconomic Study			
Year	Outbound	Inbound	Total
1981	1,140,326	1,139,494	2,279,820
1985	1,628,830	1,634,690	3,263,520
1990	1,346,778	1,349,374	2,696,152
1991	1,264,624	1,267,942	2,532,566

Source: Norfolk Airport Authority and Peninsula Airport Commission, as cited in Media General Business Communications 1992:64.

Table A.1-57 AIRPORT PASSENGERS, NEWPORT NEWS/WILLIAMSBURG INTERNATIONAL AIRPORT Coastal North Carolina Socioeconomic Study			
Year	Outbound	Inbound	Total
1981	68,407	73,246	141,653
1985	61,247	61,115	122,362
1990	150,753	149,570	300,323
1991	156,574	153,689	310,263

Source: Norfolk Airport Authority and Peninsula Airport Commission, as cited in Media General Business Communications 1992:64.

**Table A.1-58**  
**ECONOMIC IMPACT, PORT OF HAMPTON ROADS, 1991**  
**Coastal North Carolina Socioeconomic Study**

Type of Cargo	Revenue/Ton	Tonnage	Total Revenue
General Cargo	\$80.84	7,609,502	\$615,152,142
Container	\$76.30	6,564,059	\$500,837,702
Breakbulk	\$102.27	1,045,443	\$106,917,456
Bulk Cargo	\$18.27	65,536,264	\$1,197,347,543
All Cargo	\$23.91	73,145,766	\$1,748,915,265
Number of Jobs		117,547	
Wages		\$2.4 Billion	
Taxes		\$275 Million	
Source: Virginia Port Authority 1992.			

Table A.1-59  
**PRINCIPAL EXPORTS THROUGH THE PORT OF HAMPTON  
ROADS, BY COMMODITY, 1990**  
Coastal North Carolina Socioeconomic Study

Commodity	Net Tons of 2,000 pounds
<b>Food and Live Animals</b>	<b>2,323,519</b>
Animal Feeding Stuff	443,969
Cereals and Cereal Preparations	1,073,294
Coffee, Tea, Cocoa & Spices	2,710
Fish and Shellfish	7,524
Meat and Meat Preparations	49,877
Oil Seeds and Oleaginous Fruits	690,571
Vegetables and Fruits	27,831
Other	27,743
<b>Beverages and Tobacco</b>	<b>268,689</b>
Beverages	36,289
Tobacco and Tobacco Manufactures	232,400
<b>Crude Materials, Inedible, Except Fuels</b>	<b>1,217,020</b>
Cork and Wood	494,612
Crude Fertilizers	38,415
Crude Rubber	68,235
Metalliferous Ores and Metal Scrap	199,879
Pulp and Wastepaper	333,846
Textile Fibers and Wastes	66,210
Other	15,823
<b>Mineral Fuels, Lubricants, and Related Materials</b>	<b>55,306,657</b>
Coal, Coke and Briquettes	55,141,530
Gas, Natural and Manufactured	14,351
Petroleum and Petroleum Products	150,776
<b>Oil and Fats, Animal and Vegetable</b>	<b>139,539</b>
Animal Oils and Fats	25,751
Essential Oils	18,886
Vegetable Oils and Fats, Fixed	94,902
<b>Chemicals</b>	<b>210,974</b>
Chemical Materials and Products	54,001
Dyeing, Tanning and Coloring Materials	20,629
Inorganic Chemicals	45,849
Organic Chemicals	90,495

<b>Manufactured Goods</b>	<b>875,189</b>
Clothing, Accessories, and Misc Manufac.	8,667
Cork and Wood Manufactures	54,539
Iron and Steel	57,878
Manufactures of Metal	35,745
Misc. Manufactured Articles	41,297
Nonferrous Metals	44,698
Nonmetallic Mineral Manufactures	60,505
Paper and Paperboard	174,849
Plastics in Nonprimary Forms	29,288
Plastics in Primary Forms	157,010
Rubber Manufactures	19,746
Textile Yarns and Fabrics	171,966
Other	19,001
<b>Machinery and Transport Equipment</b>	<b>454,394</b>
Electrical Machinery	41,326
General Industrial Machinery and Equip.	85,484
Power Generating Machinery and Equip.	74,354
Road Vehicles	104,866
Specialized Machinery	118,497
Other	29,867
<b>Commodities and Transactions Not Classified to Kind</b>	<b>316,477</b>
<b>TOTAL</b>	<b>61,112,458</b>
Source: Hampton Roads Maritime Association 1992:10.	

Table A.1-60  
**PRINCIPAL IMPORTS THROUGH THE PORT OF HAMPTON  
ROADS, BY COMMODITY, 1990**  
Coastal North Carolina Socioeconomic Study

Commodity	Net Tons of 2,000 pounds
<b>Food and Live Animals</b>	<b>443,735</b>
Cereals and Cereal Preparations	13,280
Coffee, Tea, Cocoa & Spices	249,109
Fish	32,932
Vegetables and Fruits	116,669
Other	31,745
<b>Beverages and Tobacco</b>	<b>236,886</b>
Beverages	162,071
Tobacco and Tobacco Manufactures	74,815
<b>Crude Materials, Inedible, Except Fuels</b>	<b>1,935,331</b>
Cork and Wood	25,934
Crude Animal and Vegetable Material	17,711
Crude Fertilizer and Minerals	900,723
Crude Rubber	373,261
Metalliferous Ores and Metal Scrap	584,175
Textile Fibers and Wastes	21,651
Other	11,876
<b>Mineral Fuels, Lubricants, Etc.</b>	<b>3,977,911</b>
Coal, Coke and Briquettes	49
Gas, Natural and Manufactured	86,827
Petroleum and Petroleum Products	3,891,035
<b>Oil and Fats, Animal and Vegetable</b>	<b>15,115</b>
Animal and Veg. Fats and Oils (inedible)	1,070
Essential Oils	4,315
Vegetable Oils and Fats, Fixed	9,730
<b>Chemicals</b>	<b>695,333</b>
Chemical Materials and Products	44,488
Dyeing, Tanning and Coloring Materials	21,336
Fertilizers	312,197
Inorganic Chemicals	181,187
Organic Chemicals	136,125

<b>Manufactured Goods</b>	<b>1,422,957</b>
Clothing, Accessories, and Misc Manuf.	17,687
Cork and Wood Manufactures	142,133
Furniture and Parts	54,600
Iron and Steel	207,469
Manufactures of Metal	101,863
Misc. Manufactured Articles	45,432
Nonferrous Metals	23,825
Nonmetallic Mineral Manufactures	508,117
Paper and Paperboard	160,424
Plastics in Primary Forms	44,671
Rubber Manufactures	54,313
Textile Yarns and Fabrics	54,020
Other	8,403
<b>Machinery and Transport Equipment</b>	<b>672,387</b>
Electrical Machinery and Appliances	36,050
General Industrial Machinery and Equip.	74,556
Power Generating Machinery and Equip.	123,988
Road Vehicles and Transport Equipment	273,003
Specialized Machinery	141,509
Other	23,281
<b>Commodities and Transactions Not Classified to Kind</b>	<b>10,852</b>
<b>TOTAL</b>	<b>9,410,507</b>
Source: Hampton Roads Maritime Association 1992:13.	

Table A.1-61 PORT OF HAMPTON ROADS GENERAL CARGO TRADE (Thousands of Short Tons of 2000 lbs.) Coastal North Carolina Socioeconomic Study			
Year	Exports	Imports	Total
1980	1,763.60	1,296.90	3,060.50
1985	1,684.20	2,340.00	4,024.20
1990	3,687.00	3,474.30	7,161.30
1991	3,992.00	3,352.50	7,344.60
Source: Virginia Port Authority, as cited in HRPDC 1992b:78.			

Table A.1-62 PORT OF HAMPTON ROADS COAL LOADINGS (Millions of Tons) Coastal North Carolina Socioeconomic Study			
Year	Exports	Domestic	Total
1980	48.6	2.0	50.6
1985	43.7	5.9	49.6
1990	55.1	6.7	61.9
1991	58.5	6.6	65.1
Source: Virginia Port Authority, as cited in HRPDC 1992b:79.			

Table A.1-63  
**PRINCIPAL EXPORTS THROUGH THE PORT OF HAMPTON ROADS, BY COUNTRIES OF  
 DESTINATION, 1990**  
 Coastal North Carolina Socioeconomic Study

Exports To:	Net Tons of 2,000 pounds
Europe, Mediterranean, Middle East	42,834,037
Asia	10,750,380
Australasia and Oceania	126,376
Latin and South America	5,614,429
Africa	1,782,323
North America	4,913
<b>Total Exports</b>	<b>61,112,458</b>

Note: Differences in tonnage totals and totals for commodities due to rounding of figures in converting from pounds to tons

Source: Data based on reports of the Foreign Trade Division, Bureau of the Census, U.S. Department of Commerce, as cited in Hampton Roads Maritime Association 1992:11.

Table A.1-64  
**PRINCIPAL IMPORTS THROUGH THE PORT OF HAMPTON ROADS, BY COUNTRIES OF ORIGIN, 1990**  
 Coastal North Carolina Socioeconomic Study

Imports From:	Net Tons of 2,000 pounds
Europe, Mediterranean, Middle East	4,070,706
Asia	1,129,969
Australasia and Oceania	273,959
Latin and South America	3,199,517
Africa	288,424
North America	447,932
<b>Total Imports</b>	<b>9,410,507</b>

Note: Differences in tonnage totals and totals for commodities due to rounding of figures in converting from pounds to tons

Source: Data based on reports of the Foreign Trade Division, Bureau of the Census, U.S. Department of Commerce, as cited in Hampton Roads Maritime Association 1992:11.



Table A.1-65  
**THE PORT OF GREATER HAMPTON ROADS OIL TERMINALS**  
 Coastal North Carolina Socioeconomic Study

Pier and Location	Operator	Type of Construction
Amoco Oil Company, Chesapeake	Amoco Oil Company	Timber pile, 30 x 60 concrete decked offshore wharf with 12 x 24 foot approach and pipeline trestle; timber mooring dolphins in line with face. Adequate pipelines extend from dock to storage tanks.
Miller Oil Company, Inc. Norfolk	Miller Oil Company, Inc. Norfolk	Pier 1. Timber pile, steel decked wharf.
Crown Central Petroleum Corp., Chesapeake	Crown Central Petroleum Corp. Division	Timber pile, timber-decked offshore wharf with 700' x 5'-foot approach and pipeline trestle; timber mooring dolphins in line with face. Three 6-inch pipelines, capable of handling #2 F.O. and two grades of gasoline, extend from wharf to 8 steel storage tanks. Tug, fuel and water available at dock.
Koch Fuels, Inc.	Koch Fuels, Inc.	<u>Tanker Dock</u> : Concrete pile, concrete-decked offshore wharf; two 23- by 25-foot timber pile, concrete-decked mooring platforms in line with west side. Wharf and mooring platforms are connected by 4-foot wide timber pile, steel mesh walkway continuing from Barge Dock. <u>Barge Dock</u> : Concrete pile, concrete-decked offshore wharf; east and west sides in line with sides of two 20- by 28-foot timber pile, concrete-decked mooring platforms. Wharf and mooring platforms are connected by a 4-foot wide timber pile, steel mesh walkway, extending from timber bulkhead with solid fill.

Mobil Oil Corporation, Chesapeake	Mobil Oil Corporation	Timber pile, concrete-decked offshore wharf with 90- x 10-foot approach extending from timber bulkhead with solid fill; mooring dolphins and platforms in line with face. A 135-foot timber catwalk extends from north side of wharf to 20- by 30-foot mooring platform and a 125-foot timber catwalk extends from southside to a 10 x 18-foot mooring platform. Barges berth along rear of 125-foot catwalk with 12-foot depth of water. Three 12- and four 10-inch pipelines with 8-inch tanker connections and seven 6-, five 4-, and two 3-inch pipelines with barge connections extend from wharf to 14 steel storage tanks in rear.
Norfolk Oil Transit (Lamberts Point Pier L, Norfolk)	Norfolk Oil Transit, Inc.	Timber deck supported on timber piles.
IMTT - Chesapeake	IMTT -Chesapeake	Timber pile, metal-decked offshore spill basin wharf with a 185- by 8-foot timber approach at east end. Four breasting dolphins in line with face. Four additional mooring dolphins are located 75 feet in rear and parallel with face on east and west sides. One 14-, two 10-, and two 8-inch pipelines extend from wharf to 21 steel storage tanks.
Citgo-Stratus, Chesapeake	Citgo Petroleum Corp.	Dock - metal piles with concrete dock with a breasting surface of 200 feet. Two 14-inch and two 12-inch lines extend from dock to six steel storage tanks.
Texaco Refining & Marketing, Inc., Chesapeake	Texaco Refining & Marketing, Inc.	Part timber pile with timber deck and part concrete pile with concrete deck. One 250- by 60-foot 1-story building for private storage. One 12-, three 10-, four 8-, five 6-, and thirteen 4-inch pipelines extend from wharf to 163 steel storage tanks.

UNOCAL, Chesapeake	Union Oil Co. of Calif.	Timber pile, timber decked wharf extended from timber bulkhead with solid fill. Concrete and steel mooring dolphins in line with face.
Atlantic Energy, Inc., Chesapeake	Atlantic Energy, Inc.	Tanker dock: Includes a 10-foot wide x 210-foot long approach trestle from land to unloading dock. Dock and trestle are of timber construction on timber piles. Two concrete breasting dolphins on steel pipe piles located 125-feet on each side of dock. Four concrete mooring dolphins on steel pipe piles, 70-feet back of breasting line. The extreme dolphins are 800-feet apart. The dock is connected to the breasting and mooring dolphins by timber walkways on timber piles.
Source: Hampton Roads Maritime Association 1992:30-33.		

Table A.1-66  
**PORT OF GREATER HAMPTON ROADS OIL STORAGE AND HANDLING FACILITIES**  
 Coastal North Carolina Socioeconomic Study

**AMOCO OIL COMPANY.** The terminal of the Amoco Oil Company is located on the Southern Branch of the Elizabeth River, in Chesapeake, just south of the Jordan Bridge. This company, which began operations at this port in 1917, has a site comprising 80 acres, with a splendid waterfront, on which are erected a ship and barge pier, pipelines, storage tanks, boiler house, tank-car and truck loading racks, and other facilities requisite to a modern petroleum storage terminal.

The terminal has a storage capacity of 655,000 barrels for handling gasoline, light fuel oil and asphalt.

Vessels carry petroleum products to this terminal from various refineries located in this county and abroad.

Petroleum products are also received through the Colonial Pipeline system.

Fuel deliveries may be made to vessels at the company's wharf. Deliveries are also made by water to any section of Hampton Roads, Richmond, various other points in the Chesapeake Bay area and its tributaries.

Equipment to load/unload barges consists of the necessary pumps, flanges and other equipment for making up connections.

**ATLANTIC ENERGY, INC.** is located in Chesapeake, Virginia at the confluence of St. Julian Creek and the Southern Branch of the Elizabeth River. Two tanks with a capacity of 240,000 barrels each are provided for the receipt and storage of fully refrigerated liquefied petroleum gas.

Vessels transiting to or from the terminal must pass through three bridges. The controlling air draught is 135 ft at mean high water and controlling width is 220 ft.

The channel leading to the terminal is brackish water and is maintained for vessels with a maximum draught of 35 ft. at mean low water.

**CITGO PETROLEUM/STRATUS PETROLEUM.** The Citgo Petroleum/Stratus Petroleum Terminal (formerly Tenneco-Cities Service) is located on the Southern Branch of the Elizabeth River in Chesapeake, approximately two miles south of the Norfolk Naval Shipyard. Storage facilities are provided for 350,000 barrels of petroleum products.

Cargoes are received primarily by pipeline (facilities exist for receipt by T-2 or supertankers) and are redistributed by barge and transport truck. The plant has capabilities for fully automated loading of transport trucks 24 hours a day.

**CROWN CENTRAL PETROLEUM CORPORATION.** The terminal of the Crown Central Petroleum Corporation is located on the Southern Branch of the Elizabeth River, in Chesapeake, opposite the Norfolk Naval Shipyard, Portsmouth, Virginia. It has a storage capacity of nine million gallons of petroleum products.

**EXXON COMPANY, U.S.A.** Exxon marine lubricants are available for delivery to any location in the port of Hampton Roads. The complete line of EXXMAR oils can be delivered in bulk or in drums over the water and to any of the numerous shipyards.

**IMTT-CHESAPEAKE.** IMTT-Chesapeake, a leading East Coast storer of industrial fuel oils and bunker oils, owns and operates a deep water port and terminal complex on the Southern Branch of the Elizabeth River in Chesapeake.

The company's facility has a storage of more than 850,000 barrels and handles the complete range of industrial fuel oils including No.2, No. 4, No. 6 and bunker oils. Product terminalling is available for term leasing.

The terminal, operating around-the-clock, is connected with the Colonial Pipeline system and the Norfolk Southern Railway.

**KOCH FUELS, INC.** Koch Fuels, Inc., a subsidiary of Koch Refining Company, is situated adjacent to the C & O Railroad yards in Newport News, Va. It has a storage capacity in the excess of 520,000 barrels for handling diesel fuel, marine diesel fuel, #2 fuel oil, #4 fuel oil, #5 fuel oil, #6 fuel oil, bunker fuels, asphalt, cement, asphalt emulsion, coal tar sealers and a variety of tennis court sealers.

Products are received into the terminal by tanker and barge and redistributed by transport trucks, barges, and rail.

**MARINE OIL SERVICE, INC.** The Marine Oil Service, Inc. terminal is located on the Southern Branch of the Elizabeth River and has served the Port of Hampton Roads for over 30 years. Providing 24-hour, 365-day service, Marine Oil's fleet of trucks and three self-propelled tankers deliver lubricating oil and diesel fuel to ocean going vessels and shipyards in the Mid-Atlantic. Heated bulk storage keeps turnaround time to a minimum and a large variety of packaged products serves the needs of most vessels. Aviation oils and greases, industrial lubricants and products for truck fleets and off-road equipment are also stocked at the facility.

**MILLER OIL CO., INC.** Serving the Port of Hampton Roads and surrounding areas, Miller's bunkering terminal is located on the Eastern Branch of the Elizabeth River. The Pier has a six-hundred-foot frontage and a seventeen foot depth. The Terminal is equipped to load barges and trucks. Quality is maintained by constant monitoring of the product and independent laboratory testing on each shipment.

Miller's twenty-four-hour terminal is a leading independent supplier of marine gasoil, gasolines and commercial/residential fuel oil, including No. 1, No. 2, No. 4, No. 5, and No. 6. Bulk lubricants and fresh water are also available at the pier. Arrangements for distribution of these products are handled via barge and truck through Miller's local office located in Norfolk, Va.

**MOBIL OIL CORPORATION.** The Mobil Oil Corporation's steamer terminal is located on the Southern Branch of the Elizabeth River, in Chesapeake.

Terminal facilities include bulk storage for 10 million gallons of gasoline, 6.7 million gallons of kerosene, 9 million gallons of fuel oil, two million gallons of diesel, and 11 million gallons of bonded bunker and marine diesel fuel.

A complete line of lubricating oils and greases in drums and small packages also are stored at this location, as well as bulk oil metered to the dock.

Shipments can be effected by barge and transport truck. Trucks can be loaded at the rate of 800 gallons per minute and barges at the rate of 2,100 gallons per minute.

Dockside facilities include provision for the fueling of tugs and small boats through a complete metering system. Bulk deliveries of galley fuel and marine lubricants to ocean-going vessels are made by a small tank-boat. Deliveries of fuel and bonded bunker fuel are made by barge and ship.

**NORFOLK OIL TRANSIT, INC.** is a liquid bulk terminal located at the Lambert's Point Docks general cargo facility in Norfolk, Virginia.

The terminal serves two berths at Lamberts Point Docks. One is a 750 foot berth at Pier L, where liquid commodities are handled via two four-inch mild steel lines, one six-inch insulated mild steel line, one four-inch stainless steel line and one six-inch stainless steel line. The second berth is 600 feet long at Pier N where liquid commodities are handled via one six-inch insulated mild steel line.

The terminal has sixteen storage tanks ranging in size from 8,000 to 768,000 gallons. Total storage capacity is 3,205,000 gallons, or 73,331 barrels. The tanks include epoxy lined, fiberglass lined, insulated, steam coiled, and mixing tanks.

Commodities handled at Norfolk Oil Transit include animal fats and oils, vegetable oils, chemicals, latex, and fatty acids.

Rail service for the terminal is provided by Norfolk Southern, CSX Corporation and the Eastern Shore Railroad. Norfolk Oil Transit is capable of storing 60 jumbo tank cars. The terminal is equipped with a truck scale for accommodating truck traffic. Norfolk Oil Transit also handles liquid drumming. Direct transfers between vessels and rail cars of trucks, and between rail cars and trucks are available.

**TEXACO REFINING & MARKETING, INC.** The Norfolk Sales Terminal of Texaco Refining & Marketing, Inc. in Chesapeake, occupies more than 105 acres on the waterfront, and links Hampton Roads by boat, truck and rail to countless consumers of oil along the Middle Atlantic Coast.

Texaco vessels regularly sail the Elizabeth River to discharge petroleum products brought from the company's refineries on the Gulf Coast. Barges regularly discharge petroleum products at this terminal from Texaco's Delaware City refinery. The terminal is also served by the Colonial Pipeline for refined products.

Texaco's terminal is large enough to handle 880,000 barrels of petroleum products at any one time. It distributes a wide variety of products, ranging from gasoline and lubricating oils to fuel oils and asphalt. It includes complete facilities for handling asphalt, also a five-story compounding, packaging, and warehouse plant for lubricating oils.

The terminal is Texaco's principal distributing point for Virginia, West Virginia, North Carolina, and parts of Maryland, Delaware, Kentucky, and Ohio. Refined products and lubricating oils are distributed to interior points by rail and by truck; smaller vessels and barges make river and harbor deliveries of most products, including bunker fuels to ocean-going vessels.

**UNOCAL.** Unocal, with offices and warehouses located on the Southern Branch of the Elizabeth River, in Chesapeake, adjacent to its large facilities, distributes petroleum products from this point into the states of Virginia and North Carolina. The terminal has a storage capacity of 400,00 barrels; gasoline, fuel oil, and diesel fuels are received by ocean-going tankers and by the Colonial Pipeline.

Ample water and dockage facilities are available and shipments are made by barge and truck.

Source: Quoted verbatim from Hampton Roads Maritime Association 1992:55-60.

## **A.2 MOREHEAD CITY STATE PORT FACILITY**

The North Carolina Ports Authority administers two state ports in North Carolina, the Wilmington Port and the Morehead City Port. The Wilmington Port has easy access to the Atlantic Ocean via the Cape Fear River, and is not considered to be a likely candidate for a landfall facility associated with potential future development in the offshore Manteo Prospect area. Given this status, the Wilmington Port is not characterized here. The Morehead City Port, on the other hand, may be considered in the future as a landfall site if offshore development were to occur. It is accessed from the Atlantic through Beaufort Inlet which is roughly four miles east of the facility; mean tide range at the facility is 2.9 feet, with current velocities of two to three knots (North Carolina Ports Authority 1991). In this section, a brief description of the port facilities is provided.<sup>2</sup>

The Morehead City Port has 5,521 feet of wharf space including a 1,000 foot deep-water berth. There is a forty foot channel passage into the port and a total of 1,487 feet of dockage providing four 300-berths. A total of 457,765 square feet of warehouse storage space is available as is a total of 14.4 acres of paved open space. Two rail engines are available with equipment for off-loading piggy-back containers to Norfolk Southern Railroad (North Carolina Ports Authority 1991).

The Morehead facility has a six million ton annual capacity bulk facility for storage, and shipment of bulk cargo. Storage capacity is 225,000 tons. Cargo handling equipment includes two 115-ton Gantry cranes with container handling capacity. Forklifts, tractors and trailers and other cargo-moving equipment is available. Numerous companies including union and non-union stevedores and other marine service enterprises are available for service at the facility (North Carolina Ports Authority 1991).

The Morehead City Port is a designated Port of Entry by U.S. Customs. Permanent customs personnel are assigned to the port. The port also contains two approved Foreign Trade Zone sites.

Following are tables depicting some of the facilities available and trade activities occurring at the port. Tables A.2-1 and A.2-2 list selected port facilities including fuel suppliers and other marine services. Tables A.2-4 through A.2-6 depict economic activity including tonnage transported, capital spending, and regional economic impacts.

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<sup>2</sup> For more detailed information on the community itself, please refer to the main body of this Community Studies Volume and/or the Carteret County chapter of the County Studies Volume of this report series.

Table A.2-1 BUNKER FUEL SUPPLY FACILITIES: MOREHEAD CITY STATE PORT	
Company	Distributor
Alpha Marine Supply Co.	Alpha Marine Supply Co.
Colonial Oil Industries	Colonial Oil Industries
J.M. Davis Industries	Texaco Distributor
Morehead Ship's Chandler	Morehead Ship's Chandler
Tom Potter Oil Co.	Exxon Distributor
Source: 1993 North Carolina Ports Services Directory	

Table A.2-2 SHIP'S CHANDLERS: MOREHEAD CITY STATE PORT
Company
Alpha Marine Supply
Atlantic Ship Chandler, Inc.
Morehead Ship's Chandler, Inc.
Source: 1993 North Carolina Ports Directory

Table A.2-3 MARINE EQUIPMENT SUPPLY: MOREHEAD CITY STATE PORT
Company
Alpha Marine Supply Co.
Atlantic Ship Chandler, Inc.
Barbour's Marine Supply
Source: 1993 North Carolina Ports Directory



Table A.2-4 CARGO TONNAGE FOR FISCAL YEAR 1990: MOREHEAD CITY STATE PORT				
Container	Break Bulk	Dry Bulk	Liquid Bulk	Total Tonnage
80	114,934	2,226,382	226,638,222	193,066
Source: Shoesmith 1991:9				

Table A.2-5 TOTAL TONNAGE AND GROSS REVENUE: MOREHEAD CITY STATE PORT			
	1980	1985	1990
Tonnage (millions of short tons)	2.03	3.40	2.57
Gross Revenue (millions of dollars)	---	---	6.05
Holland 1991:I-38, Shoesmith 1991:9			

In 1990, forty seven percent more cargo tonnage was processed in Morehead City. However, as the above table indicates, most of the tonnage was dry bulk, which "generates significantly fewer port industry expenditures per ton of cargo as well as local port user jobs" (Shoesmith 1991:11).

Table A.2-6 TOTAL PORT IMPACTS ON NORTH CAROLINA, 1990: MOREHEAD CITY STATE PORT				
Impact Source	Employment (jobs)	Income (dollars)	Sales (dollars)	Taxes (dollars)
Port Industry	1,421	35,121,545	128,805,245	4,249,306
Capital Spending	92	1,915,146	7,389,836	238,783
Local Port Users	4,563	82,033,218	316,822,368	9,623,089
Total	6,076	119,069,909	453,017,449	14,111,178
Shoesmith 1991:16				