

APPENDIX A: SUMMARY OF PROPOSED DEVELOPMENT  
AND STAFFING

DEVELOPMENT COSTS

The following estimates are based on the costs of construction for the year 1982. Dollar totals have been rounded to the nearest thousand.

1. Administrative Site: East Harkers Island
  - a. Administrative office complex = \$ 274,000
    - i. Office building: 2,500 ft.<sup>2</sup> @ \$100 = \$250,000
    - ii. Parking: 20 spaces @ \$1,200 = \$24,000
  - b. Visitor contact station = 475,000
    - i. Contact station with restrooms and exhibits: 2,500 ft.<sup>2</sup> @ \$150 = \$375,000
    - ii. Visitor parking: 100 spaces @ \$1,000 = \$100,000 (80 cars, 20 RV/trailer)
  - c. Maintenance complex = 273,000
    - i. Maintenance building: 3,000 ft.<sup>2</sup> @ \$90 = \$270,000
    - ii. Paved area: 2,000 ft.<sup>2</sup> @ \$1.25 = \$2,500
  - d. Staff housing = 465,000
    - i. One ea. single family unit = \$65,000
    - ii. Two ea. four-plexes @ \$200,000 = \$400,000
  - e. Marina (15,000 ft.<sup>2</sup>) with boat ramp, ferry-boat loading area, surrounding boardwalk; and obliteration of boat basin on eastern shore = 205,000
  - f. Picnic area, designed for handicapped = 105,000
    - i. 25 sites with picnic tables, grills, trash receptacles and landscaping @ \$1,000 = \$25,000
    - ii. Comfort station = \$50,000
    - iii. Parking: 25 spaces @ \$1,200 = \$30,000
  - g. Interpretive trails, designed for handicapped: 1 mile = 32,000
  - h. Entrance and loop road, paved, 2-lane: 1 mile = 350,000
  - i. Utilities = 590,000
    - i. Electric, underground = \$30,000
    - ii. Telephone, underground = \$10,000
    - iii. Water supply (domestic and fire) = \$50,000

iv.	Sewage disposal = \$500,000 (solid waste removed by contractor, included in operating costs)	
j.	Pedestrian circulation and landscaping =	\$ 40,000
k.	Existing road demolition: 10,000 ft. <sup>2</sup> @ \$10 =	100,000
l.	Existing building demolition =	20,000
m.	Channel dredging: 4,000 yd <sup>3</sup> @ \$10 =	<u>40,000</u>
	Subtotal, East Harkers Island =	\$2,969,000
2.	Cape Lookout Point Area	
a.	Visitor contact station/ranger station/residence =	383,000
	Visitor contact station/ranger station, including public comfort facilities: 1,200 ft. <sup>2</sup> @ \$150 = \$180,000; covered deck: 300 ft. <sup>2</sup> @ \$25 = \$7,500; living quarters (permanent and seasonal): 1,300 ft. <sup>2</sup> @ \$150 = \$195,000	
b.	Maintenance and garage facility: 1,000 ft. <sup>2</sup> @ \$100 =	100,000
c.	Boat dock: 100 ft. @ \$300 =	30,000
d.	Boardwalks: 3,000 ft. <sup>2</sup> @ \$10 =	30,000
e.	Interpretive trails and signs: 1,200 ft. @ \$6 =	7,000
f.	Comfort facilities, 10 ea. portable self-contained @ \$5,000 =	50,000
g.	Electric power generating station =	20,000
h.	Water system =	100,000
i.	Orientation/shelter/toilet facilities: 400 ft. <sup>2</sup> @ \$200 =	<u>80,000</u>
	Subtotal, Cape Lookout Point Area =	\$ 800,000
3.	East Shackleford Banks	
a.	Boat dock: 100 ft. @ \$300 =	30,000
b.	Sign=	<u>1,000</u>
	Subtotal, East Shackleford Banks =	\$ 31,000
4.	Portsmouth Village	
a.	Visitor contact station with orientation, shelter, and comfort facilities: 300 ft. <sup>2</sup> @ \$200 =	60,000
b.	Boat dock: 50 ft. @ \$300 =	15,000
c.	Electric power generating station =	20,000
d.	Water well and treatment facility =	100,000
e.	Interpretive trails and signs: 5,000 ft. @ \$4 =	20,000
f.	Maintenance facility: 2,000 ft. <sup>2</sup> @ \$100 =	200,000
h.	Remodel Coast Guard station =	40,000
i.	Provide for ranger station and residence =	40,000
j.	Provide for interpretation and toilet facilities =	<u>80,000</u>
	Subtotal, Portsmouth Village =	\$ 575,000

5.	Shingle Point and North New Drum Inlet	
a.	Boat dock: 50 ft. @ \$300 = \$15,000 x 2 =	\$ 30,000
b.	Rain shelter: 100 ft. <sup>2</sup> @ \$25 = \$2,500 x 2 =	5,000
c.	Enclosed camping shelters: 20 ea. @ \$4,000 = \$80,000 x 2 =	160,000
d.	Toilet facilities = \$30,000 x 2 =	60,000
e.	Electric power generating station = \$10,000 x 2 =	<u>20,000</u>
	Subtotal, Shingle Point and North New Drum Inlet	\$ 275,000
	NET DEVELOPMENT COST =	\$4,650,000

ANNUAL STAFFING\* AND OPERATING COSTS (FIRST THREE YEARS FOLLOWING PLAN APPROVAL)

Year Following Plan Approval**	Administration and Management	Interpretation	Resource Management	Visitor Protection	Maintenance	Total	Staffing and Operating Costs
First	3/1	2/1	1/0	4/4	4/5	14/11	\$ 851,000
Second	3/1	2/1	1/1	4/4	4/5	14/12	\$ 906,000
Third	3/1	3/2	1/1	5/4	6/5	18/13	\$1,095,000

\* Staff: Permanent Full-Time/Other than Permanent Full-Time

\*\*Implementation of the general development plan for Cape Lookout National Seashore should be phased according to the following schedule.

1st Year: Comprehensive design of east Harkers Island. Develop interpretation plan and update resources management plan.

2nd Year: Construction on east Harkers Island. Comprehensive design of seashore development areas. Develop historic preservation plan. Dredge marina and channels for ferryboat service originating at Harkers Island.

3rd Year: Construction of seashore development areas. Continue channel dredging as needed.

## APPENDIX B: PUBLIC INVOLVEMENT AND CONSULTATION

### PUBLIC INVOLVEMENT

The public involvement program included two workshops held in September 1976 in Raleigh and Morehead City, North Carolina, respectively. Suggestions of the workshop groups (110 participants) and written responses (30 letters) were used to help formulate the alternatives for use and development of the seashore. A progress report, which summarized the suggestions and explained the planning tasks, was sent to the participants and other interested parties.

Based on the comments that resulted from the workshops, the NPS formulated five alternative plans that were circulated to the public, February 1978, in the form of an Environmental Assessment. The comments received were summarized in a subsequent document, May 1978, titled Environmental Review, that also contained the broad outline of the plan proposal, which was presented in detail in the Draft General Management Plan/Wilderness Study/Development Concept Plan dated May 1980.

Copies of this plan and its accompanying Draft Environmental Impact Statement were released to the public on August 1, 1980, at which time interested individuals, representatives of private organizations, and public officials were invited to express their views at public hearings in four locations in North Carolina: Greensboro, September 8; Raleigh, September 9; Greenville, September 10; and Harkers Island, September 11. The public was also notified that written statements would be accepted until October 13.

The public hearings were attended by 595 people of whom 72 commented orally on the plan. Additionally over 500 letters were received and more than 14,000 signatures appeared on petitions.

Resulting from public comment, the May 1980 draft has been extensively revised. Planning for the seashore is an evolving process and the present edition will receive further review and may be revised before being approved by the NPS and submitted to the Congress in compliance with PL 93-477.

### CONSULTATION

In addition to the general public, a variety of local, state, and federal agencies and private organizations were contacted to participate in the development of this plan.

#### Federal

Advisory Council on Historic Preservation  
Department of Agriculture  
Soil Conservation Service, Beaufort and Raleigh, North Carolina

Department of the Army  
Corps of Engineers, Wilmington, North Carolina  
Department of Commerce  
Environmental Data Service, Asheville, North Carolina  
Department of the Interior  
Geological Survey, Raleigh, North Carolina

Federal/State

Coastal Plains Regional Commission, Washington, DC.

State of North Carolina

Department of Cultural Resources  
State Historic Preservation Officer, Raleigh  
Department of Marine Fisheries, Morehead City  
Department of Natural and Economic Resources  
Division of Environmental Management, Raleigh  
Division of Travel and Promotion, Raleigh  
Museum of Natural History, Raleigh  
State Clearinghouse, Raleigh

County and Local

Carteret County Chamber of Commerce, Morehead City  
Carteret County Economic Development Council, Morehead City  
Carteret County Planning Department, Beaufort

Universities

Amherst College, Department of Geology, Amherst, Massachusetts  
Campbell College, Department of Biology, Buies Creek, North Carolina  
Duke University, Geology Department, Durham, North Carolina  
Duke University, Marine Laboratory, Beaufort, North Carolina  
North Carolina State University, Center for Marine Studies, Raleigh, North Carolina  
Smith College, Department of Botany, Northampton, Massachusetts  
University of Massachusetts, Institute for Man and the Environment, Amherst, Massachusetts  
University of North Carolina, Wilmington, North Carolina  
University of North Carolina, Curriculum in Marine Sciences, Chapel Hill, North Carolina  
University of Virginia, Department of Environmental Science, Charlottesville, Virginia

Local

Atlantic Beach Town Council  
Beaufort Town Commissioners  
Carteret County Commissioners  
Emerald Isle Town Council  
Morehead City Town Commissioners  
Newport Town Council  
Pine Knoll Shores Town Council

Other

Audubon Society, New Hope Chapter, Chapel Hill, North Carolina  
Barrier Island Coalition, New York, New York  
Beaufort Historic Society, Beaufort, North Carolina  
Carteret County Environmental Resources Commission, Beaufort, North Carolina  
Carteret County Historical Association, Beaufort, North Carolina  
Carteret County News-Times, Morehead City, North Carolina  
Carteret County Wildlife Club, Beaufort, North Carolina  
Coastal Plains Center for Marine Development Services, Wilmington, North Carolina  
Conservation Council of North Carolina, Durham, North Carolina  
Conservation Foundation, Washington, D.C.  
East Carteret High School, Environmental Science Curriculum, Beaufort, North Carolina  
Friends of the Earth, San Francisco, California  
Hampton Mariners Museum, Beaufort, North Carolina  
National Parks and Conservation Association, Washington, D.C.  
National Wildlife Federation, North Carolina Field Representative, Morehead City, North Carolina  
Nature Conservancy, Raleigh, North Carolina  
North Carolina Beach Buggy Association, Nags Head, North Carolina  
Outer Banks Preservation Association, Buxton, North Carolina  
Paul and Francine Buckley, North Atlantic Regional Office, National Park Service, Boston, Massachusetts  
Sierra Club, Cape Fear Group, Wilmington, North Carolina  
Sierra Club, Cypress Group, Greenville, North Carolina  
Sierra Club, Joseph LeConte Chapter, Cape Lookout Committee  
The Wilderness Society, Atlanta, Georgia  
United Mobile Sportfishermen, Inc.

APPENDIX C: LEGISLATION



Public Law 89-366  
89th Congress, S. 251  
March 10 1966

An Act

To provide for the establishment of the Cape Lookout National Seashore in the State of North Carolina, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled. That in order to preserve for public use and enjoyment an area in the State of North Carolina possessing outstanding natural and recreational values, there is hereby authorized to be established the Cape Lookout National Seashore (hereinafter referred to as "seashore"), which shall comprise the lands and adjoining marshlands and waters on the outer banks of Carteret County, North Carolina, between Ocracoke Inlet and Beaufort Inlet, as generally depicted on the map entitled "Proposed Boundaries—Proposed Cape Lookout National Seashore", dated April 1964, and numbered NS-CL-7101-B, which is on file in the Office of the National Park Service, Department of the Interior: *Provided, however,* That such seashore shall not include those lands and interests in lands which are bounded on the north by the southerly boundary of the Cape Lookout lighthouse property, on the east by a line located seven hundred and fifty feet inland from the mean high water line of the Atlantic Ocean, on the south by the northerly boundary of property now owned or leased by the United States Coast Guard and other Federal agencies, and on the west by the easterly boundary of property of the Thomas Gold heirs (as shown on a map prepared by J. G. Hassell in October 1961 and recorded at page 4 of Map Book Numbered 6 in the office of the Register of Deeds, Carteret County, North Carolina) and the waters of Lookout Bight.

Cape Lookout  
National Sea-  
Shore, N. C.  
Establishment.

80 STAT. 33.  
80 STAT. 34.

SEC. 2. (a) Notwithstanding any other provision of law, Federal property located within the boundaries of the Cape Lookout National Seashore may, with the concurrence of the agency having custody thereof, be transferred to the administrative jurisdiction of the Secretary of the Interior for the purposes of the seashore. Such transfer shall be made without transfer of funds. Non-Federal lands, marshlands, waters, or interests therein located within the authorized seashore may be acquired by the Secretary of the Interior only through donation, except that he may purchase with donated or appropriated funds, or may acquire by exchange, the lands, marshlands, and waters or interests therein comprising the Shackleford Banks. Land donated by the State of North Carolina pursuant to this subsection shall constitute consideration for the transfer by the United States of 1.5 acres of land that is to be used as a site for a public health facility in the village of Hatteras, Dare County, North Carolina.

Federal and  
non-Federal  
lands, transfer.

(b) When acquiring lands by exchange, the Secretary may accept title to any non-Federal property within the boundaries of the seashore and convey to the grantor of such property any federally owned property in the State of North Carolina under his jurisdiction which he classifies as proper for exchange or other disposition. Failing to effectuate an exchange of properties of approximately equal fair market value, the Secretary may accept cash from or pay cash to the grantor in such an exchange in order to equalize the values of the properties exchanged.

Land acquisition  
by exchange.

(c) Any person who on January 1, 1966, owned property which on July 1, 1963, was developed and used for noncommercial residential purposes may reserve for himself and his assigns, as a condition to the purchase or acquisition by exchange of such property by the Secretary, a right of use and occupancy of the residence and not in excess of three acres of land on which the residence is situated, for noncommercial residential purposes for a term ending at the death

Owners' use of  
property.

of the owner, or the death of his spouse, or the death of either of them, or, in lieu thereof, for a definite term not to exceed twenty-five years:

Exclusion rights. *Provided*, That the Secretary may exclude from such reserved property any marsh, beach, or waters, together with so much of the land adjoining such marsh, beach, or waters as he deems necessary for public access thereto. The owner shall elect the term of the right to be reserved. The Secretary is authorized to accept donations of property for purposes of the seashore in which a right of use and occupancy for noncommercial residential purposes is reserved for the period stated in this subsection if the land on which the residence is situated and to which the right attaches is not in excess of three acres and there is excluded from the reserved property such marsh, beach, or waters and adjoining land as the Secretary deems necessary for public use and access thereto.

80 STAT. 34.  
80 STAT. 35.

Use and occupancy rights. (d) A right of use and occupancy reserved in lands that are donated or otherwise acquired pursuant to this section shall be subject to termination by the Secretary upon his determination that such use and occupancy is being exercised in a manner not consistent with the purposes of this Act and upon tender to the holder of the right of an amount equal to the fair market value of that portion of the right which remains unexpired on the date of termination.

Beaufort, N. C.,  
administrative  
site.

(e) The Secretary of the Interior is authorized to purchase with donated or appropriated funds, or acquire by exchange, not to exceed one hundred acres of lands or interests in lands at or near Beaufort, North Carolina, as an administrative site, and for a landing dock and related facilities that may be used to provide a suitable approach or access to the seashore.

Notice, publication in Federal Register.

SEC. 3. When title to the lands and interests in lands which under section 2(a) of this Act may be acquired for the purposes of the seashore by donation only is vested in the United States, the Secretary shall declare the establishment of the Cape Lookout National Seashore by publication of notice thereof in the Federal Register. Such notice shall contain a refined description or map of the boundaries of the seashore as the Secretary may find desirable and such exterior boundaries shall encompass, as nearly as possible, the area generally described in section 1 of this Act. Copies of said description or map shall be furnished to the Speaker of the House and the President of the Senate not less than thirty days prior to publication in the Federal Register. Following such establishment, and subject to the limitations and conditions prescribed in this Act, the Secretary may, subject to the provisions of section 2 hereof, acquire the remainder of the lands and interests in lands within the boundaries of the seashore.

Copies sent to Congress.

Hunting and fishing.

SEC. 4. The Secretary shall permit hunting and fishing, including shellfishing, on lands, marshlands, and waters under his jurisdiction within the Cape Lookout National Seashore in accordance with the laws of the State of North Carolina and the United States, to the extent applicable, except that the Secretary may designate zones where, and establish periods when, no hunting or fishing shall be permitted for reasons of public safety, administration, fish or wildlife management, or public use and enjoyment. Except in emergencies, any rules and regulations of the Secretary pursuant to this section shall be put into effect only after consultation with the North Carolina Wildlife Resources Commission and the North Carolina Department of Conservation and Development.

Administration.

SEC. 5. The Secretary shall administer the Cape Lookout National Seashore for the general purposes of public outdoor recreation, including conservation of natural features contributing to public enjoyment. In the administration of the seashore and the administrative site, the

Secretary may utilize such statutory authorities relating to areas administered and supervised by the Secretary through the National Park Service and such statutory authorities otherwise available to him for the conservation and management of natural resources as he deems appropriate to carry out the purposes of this Act.

SEC. 6. The authority of the Chief of Engineers, Department of the Army, to undertake or contribute to shore erosion control or beach protection measures within the Cape Lookout National Seashore shall be exercised in accordance with a plan that is mutually acceptable to the Secretary of the Interior and the Secretary of the Army, and that is consistent with the purposes of this Act. Shore erosion control.

SEC. 7. There are hereby authorized to be appropriated not to exceed \$3,200,000 for the acquisition and development of the seashore in accordance with the purposes of this Act. Appropriation.

Approved March 10, 1966.

---

LEGISLATIVE HISTORY:

HOUSE REPORT No. 1278 accompanying H. R. 1784 (Comm. on Interior & Insular Affairs).

SENATE REPORT No. 509 (Comm. on Interior & Insular Affairs).

CONGRESSIONAL RECORD:

Vol. 111 (1965): July 27, considered and passed Senate.

Vol. 112 (1966): Feb. 16, considered and passed House, amended, in lieu of H. R. 1784.

Feb. 23, Senate concurred in House amendment with an amendment.

Feb. 28, House concurred in Senate amendment.



Public Law 93-477  
 93rd Congress, H. R. 14217  
 October 26, 1974

**An Act**

88 STAT. 1445

To provide for increases in appropriation ceilings and boundary changes in certain units of the National Park System, to authorize appropriations for additional costs of land acquisition for the National Park System, and for other purposes.

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

**TITLE IV—MISCELLANEOUS PROVISIONS**

Cape Lookout  
 National Seashore, N. C.  
 16 USC 459g.

Non-Federal land  
 acquisition.  
 16 USC 459g-1.

Post, p. 1449.

16 USC 495g-2.

Publication in  
 Federal Register.

SEC. 406. The Act of March 10, 1966 (80 Stat. 33; 16 U.S.C. 459g) providing for the establishment of Cape Lookout National Seashore in the State of North Carolina is amended as follows:

(1) Section 1 is amended by deleting "Proposed Boundaries—Proposed Cape Lookout National Seashore", dated April 1964, and numbered NS-CL-7101-B," and substituting in lieu thereof "Boundary Map, Cape Lookout National Seashore", dated March 1974, and numbered 623-20.009," and by changing the colon to a period and deleting the remainder of the section.

(2) Subsection 2(a) is amended by deleting the third sentence and inserting in lieu thereof the following "Lands owned by the State of North Carolina or any political subdivision thereof may be acquired only by donation, but the Secretary may, subject to the provisions of section 7 of this Act, acquire any other non-Federal lands, marshlands, waters, or interests therein which are located within the boundaries of the seashore by donation, purchase with donated or appropriated funds, or exchange. Notwithstanding any other provision of law, the Secretary may accept any lands donated by the State of North Carolina subject to a provision for reversion to the State conditioned upon continued use of the property for national seashore purposes."

(3) Section 3 is amended by revising the first sentence to read as follows: "When title to lands and interests in lands in an amount sufficient to constitute an efficiently administrable unit for the purposes of this Act is vested in the United States, the Secretary shall declare the establishment of the seashore by publication of notice thereof in the Federal Register."

October 26, 1974

Pub. Law 93-477

88 STAT. 1449

(4) Section 7 is amended to read as follows:

"SEC. 7. On or before January 1, 1978, the Secretary shall review the area within the seashore and shall report to the President, in accordance with section 3 (c) and (d) of the Wilderness Act (78 Stat. 891; 16 U.S.C. 1132 (c) and (d)), his recommendations as to the suitability or nonsuitability of any area within the seashore for preservation as wilderness, and any designation of any such areas as a wilderness shall be accomplished in accordance with said subsections of the Wilderness Act."

Report to

President.

16 USC 459g-6.

(5) Add a new section 8 to read as follows:

"SEC. 8. There are hereby authorized to be appropriated such sums as may be necessary to carry out the purposes of this Act, not to exceed \$7,903,000 for acquisition of lands and interests therein, of which no more than \$1,000,000 may be expended for acquisition of lands owned by Core Banks Club Properties, Incorporated. For development of essential public facilities there are authorized to be appropriated not more than \$2,935,000. On or before January 1, 1978, the Secretary shall develop and transmit to the Committees on Interior and Insular Affairs of the United States Congress a final master plan for the full development of the seashore consistent with the preservation objectives of this Act, indicating—

Appropriation.

16 USC 459g-7.

Master plan,

transmittal

to congressional

committees.

"(1) the facilities needed to accommodate the health, safety and recreation needs of the visiting public;

"(2) the location and estimated cost of all facilities; and

"(3) the projected need for any additional facilities within the seashore."

Approved October 26, 1974.

LEGISLATIVE HISTORY:

HOUSE REPORT No. 93-1286 (Comm. on Interior and Insular Affairs).  
SENATE REPORT No. 93-1232 (Comm. on Interior and Insular Affairs).  
CONGRESSIONAL RECORD, Vol. 120 (1974):

Aug. 19, considered and passed House.

Oct. 8, considered and passed Senate, amended.

Oct. 16, House concurred in Senate amendments with an amendment; Senate concurred in House amendment.

## BIBLIOGRAPHY

### SOCIOECONOMIC ENVIRONMENT

CARTERET COUNTY ECONOMIC DEVELOPMENT COUNCIL  
1976 Statistical Data Package, by Roy Stevens. Morehead City, NC.

CARTERET COUNTY PLANNING COMMISSION  
1975 Harkers Island Land Use Map. Beaufort, NC.

1976 Draft Carteret County Land Development Plan. Morehead City, NC.

COASTAL PLAINS REGIONAL COMMISSION  
1971 Economic Development Plan. Washington, DC.

COUNCIL ON ENVIRONMENTAL QUALITY  
1979 Off-Road Vehicles on Public Lands, by David Sheridan. Washington, DC: U.S. Government Printing Office.

NORTH CAROLINA COASTAL RESOURCES COMMISSION  
1978 Coastal Area Management Act Land Use Plan, Carteret County, North Carolina. Raleigh, NC.

NORTH CAROLINA DEPARTMENT OF ADMINISTRATION  
1972 The Economic Impact of Commercial Sports Fishing Activities in Morehead City, North Carolina, by Coastal Zone Resources Corporation.

NORTH CAROLINA DEPARTMENT OF COMMERCE, TRAVEL AND TOURISM DIVISION  
1978 Tourists and the Travel Business in North Carolina During 1977; An Economic Analysis, by L. and L. Copeland. Knoxville, TN.

NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES  
1974 North Carolina Travel Survey. Raleigh, NC: Division of Economic Development, Travel Development Section.

1976a North Carolina Travel 1975: A Billion Dollar Year. Raleigh, NC: Division of Economic Development, Travel Development Section.

1976b "Dredge and Fill." In North Carolina Administrative Code, Subchapter 30. Raleigh, NC: Division of Marine Fisheries.

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
1979 Carteret County 1978 Average Daily Traffic Map. Raleigh, NC.

U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION, OFFICE OF COASTAL MANAGEMENT  
1978 State of North Carolina Coastal Management Program and Final  
Environmental Impact Statement. Washington, DC., and  
Raleigh, NC.

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT  
1978 Flood Hazard Boundary Map, Carteret County, North Carolina  
(Unincorporated Areas). Preliminary.

U.S. DEPARTMENT OF THE INTERIOR, BUREAU OF OUTDOOR  
RECREATION  
1970 Outdoor Recreation Space Standards. Washington, DC: U.S.  
Government Printing Office.

1977 Guidelines for Understanding and Determining Optimum  
Recreation Carrying Capacity, by Urban Research and  
Development Corporation. Bethlehem, PA.

U.S. DEPARTMENT OF THE INTERIOR, HERITAGE CONSERVATION AND  
RECREATION SERVICE  
1980 Alternative Policies for Protecting Barrier Islands Along the  
Atlantic and Gulf Coasts of the United States and Draft  
Environmental Statement. Washington, DC.

U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE  
1976 Cape Lookout National Seashore Statement for Management.  
Atlanta, GA: Southeast Regional Office.

1976 Final Environmental Assessment for the General Management  
Plan/Wilderness Study, Cumberland Island National Seashore,  
Georgia. Denver, CO: Denver Service Center.

1978 Environmental Assessment, Alternatives of General Management  
Plan and Wilderness Study, Cape Lookout National Seashore,  
North Carolina. Denver, CO: Denver Service Center

WARNER, LANGDON  
1976 The Status of the Barrier Islands of the Southeastern Coast.  
Prepared for Open Space Institute and Natural Resources  
Defense Council. New York, NY.

#### CULTURAL ENVIRONMENT

HAAG, W.G.  
1956 Geographic History of the Outer Banks. Coastal Studies  
Institute. Baton Rouge, LA: Louisiana State University Press.

NORTH CAROLINA DEPARTMENT OF ARCHIVES AND HISTORY  
1972 Cape Lookout Light Station. National Register of Historic  
Places Inventory - Nomination Form. Raleigh, NC.

U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT  
1978 Shore Erosion Study, Cape Lookout Lighthouse. Wilmington,  
NC.

U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE  
1968 A Survey History of Cape Lookout National Seashore, by F.  
Ross Holland. Washington, DC: Office of Archaeology and  
Historic Preservation, Division of History.

U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE  
1976 Cape Lookout National Seashore: Assessment of Archeological  
and Historical Resources, by John E. Ehrenhard. Tallahassee,  
FL: Southeast Archeological Center.

1977 Portsmouth Village. National Register of Historic Places  
Inventory - Nomination Form. Southwest Regional Office,  
Atlanta, GA.

1979 Letter to Senator Jesse A. Helms, Re: Beach erosion threat to  
Cape Lookout Lighthouse, from William Whalen, Director.  
Washington, DC.

1981 Portsmouth Village Historic Resource Study, Cape Lookout  
National Seashore, by Sarah Olson. Denver, CO: Denver  
Service Center,

UNIVERSITY OF NORTH CAROLINA  
1979 "Looking Out for Cape Lookout." Sea Grant College Newsletter  
(February). Raleigh, NC.

## NATURAL ENVIRONMENT

### Physical Features

BEARDEN, J., AND J. GRIMSLEY  
1969 An Exploratory Study of the Relationship Between Hurricanes  
and Structural Property Damage in Dare County, North  
Carolina. Prepared for the Dare County Board of Realtors and  
Planters National Bank and Trust Co.

BOSSERMAN, K. AND R. DOLAN  
1968 The Frequency and Magnitude of Extratropical Storms Along the  
Outer Banks of North Carolina. Technical Report 68-4.  
Charlottesville, VA: Coastal Resources Associates.

BRAUER, CONSTANCE J.  
1974 Genetic Mapping and Erosional History of the Surface Sediments  
of Shackleford Banks, North Carolina. Master's thesis.  
Durham, NC: Duke University.

DOLAN, ROBERT, AND JEFFREY HEYWOOD  
1977 Analysis of Shoreline Erosion and Storm Surge Penetration Data  
for Cape Lookout National Seashore. Charlottesville, VA:  
University of Virginia, Department of Environmental Science.

FEDERAL EMERGENCY MANAGEMENT AGENCY, FEDERAL INSURANCE  
ADMINISTRATION

1980 Flood Insurance Rate Maps for Carteret County, North Carolina  
(Unincorporated Areas).

1981 Wave crest height and coastal high hazard area determination.  
Personal communication from Director of Coastal Program.

GODFREY, PAUL J., AND MELINDA M. GODFREY

1976 Barrier Island Ecology of Cape Lookout National Seashore and  
Vicinity, North Carolina. National Park Service Scientific  
Monograph Series No. 9. Amherst, MA: University of  
Massachusetts, Department of Botany and National Park Service  
Cooperative Research Unit.

KNOWLES, C.E., AND JAY LANGFELDER

1973 A Preliminary Study of Storm-Induced Beach Erosion for North  
Carolina. Report No. 73-5. Raleigh, NC: North Carolina  
State University, Center for Marine and Coastal Studies.

NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC  
RESOURCES

1976 Personal correspondence with Thomas C. Allen II regarding air  
quality for Cape Lookout area. Raleigh, NC: Division of  
Environmental Management.

1976 How to Live with an Island--A Handbook to Bogue Banks, North  
Carolina, by Orrin H. Pilkey, Jr., Orrin H. Pilkey, Sr., and  
Robb Turner. Raleigh, NC: Science and Technology Section.

SUSMAN, KENNETH R.

1975 Post-Miocene Subsurface Stratigraphy of Shackleford Banks,  
Carteret County, North Carolina. Master's thesis. Durham,  
NC: Duke University.

THE GEOLOGICAL SOCIETY OF AMERICA

1975 Impact of Barrier-Island Development--Geologic Problems and  
Practical Solutions. Report of the Committee on Environment  
and Public Policy. Boulder, CO.

U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE  
1977 Soil Survey, Outer Banks, North Carolina. Raleigh, NC.

U.S. ARMY CORPS OF ENGINEERS, WILMINGTON DISTRICT

1976 Final Environmental Statement: Maintenance of the Navigaton  
Projects on Sounds of North Carolina. Wilmington, NC.

U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND  
ATMOSPHERIC ADMINISTRATION

1971 Climate of Carteret County, North Carolina, by A.V. Hardy.  
Climatological summary. Raleigh, NC.

U.S. DEPARTMENT OF THE INTERIOR, FISH AND WILDLIFE SERVICE  
1977 Ecological Effects of Dredging and Dredge Spoil Disposal: A Literature Review, by James W. Morton. Technical Paper 94. Washington, DC.

U.S. DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY  
1975 Ground-water Resources of the Cape Hatteras National Seashore, North Carolina, by M.D. Winner, Jr. Hydrologic Investigations Atlas HA-540. Reston, VA.

1976 Reconnaissance Geology of the Submerged and Emerged Coastal Plain Province, Cape Lookout Area, North Carolina, by Robert B. Mixon and Orrin H. Pilkey. Professional Paper 859. Washington, DC: U.S. Government Printing Office.

1978 Ground-Water Resources of the Cape Lookout National Seashore, North Carolina, by M.D. Winner, Jr. Water Resources Investigations 78-52. Raleigh, NC.

U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE  
1977 Atlas of Environmental Dynamics, Assateague Island National Seashore, by R. Dolan, B. Hayden, and J. Heywood. Natural Resources Report No. 11. Charlottesville, VA: University of Virginia.

1979 The Role of the National Park Service in Protecting Clean Air. Seminar April 2, 1979. Denver, CO: Denver Service Center.

#### Ecological Features

AU, SHU-FUR

1974 Vegetation and Ecological Processes on Shackleford Banks, North Carolina. National Park Service Scientific Monograph Series, No. 6. Washington, DC: U.S. Government Printing Office.

BACCUS, JOHN T., AND JACK K. HORTON

1979 An Ecological and Sedimentary Study of Padre Island National Seashore. Contract No. CX 702970059. San Marcos, TX: Southwest Texas State University. Southwest Region, National Park Service, Santa Fe, NM.

BLODGET, BRADFORD

1978 The Effect of Off-Road Vehicles on Least Terns and Other Shorebirds. Master's thesis. Amherst, MA: University of Massachusetts.

BROADHEAD, J.M., AND P.J. GODFREY

1977 "Off-Road Vehicle Impact in Cape Cod National Seashore: Disruption and Recovery of Dune Vegetation." International Journal of Biometeorology 21:299-306.

- BUCKLEY, P.A., AND F.G. BUCKLEY  
 1976 Guidelines for Protection and Management of Colonially Nesting Waterbirds. Boston, MA: National Park Service, North Atlantic Regional Office.
- BURK, C. JOHN  
 1961 "A Botanical Reconnaissance of Portsmouth Island, North Carolina." Journal of the Elisha Mitchell Scientific Society 77:72-74.
- 1976 Fourteen Years of Change on Portsmouth Island. Northhampton, MA: Smith College.
- ENGLES, WILLIAM L.  
 1952 "Vertebrate Fauna of North Carolina Coastal Islands, Shackleford Banks." American Midland Naturalist 47:702-42.
- GODFREY, PAUL J.  
 1976 Field Trips To Cape Cod, Massachusetts. Vol. 1: The Interaction of Vegetation and Geological Processes on Barrier Beaches; and Vol. 2: Off-Road Vehicle Impact on Dunes of Cape Cod National Seashore. Special Supplement to the 1976 NEIGC Guidebook. Amherst, MA: University of Massachusetts, Department of Botany and National Park Service Cooperative Research Unit.
- 1976 "Barrier Beaches of the East Coast." Oceanus 19:27-40.
- GODFREY, PAUL J., AND MELINDA M. GODFREY  
 1976 Barrier Island Ecology of Cape Lookout National Seashore and Vicinity, North Carolina. National Park Service Monograph Series No. 9. Amherst, MA: University of Massachusetts, National Park Service Cooperative Research Unit.
- GODFREY, PAUL J., STEPHEN P. LEATHERMAN, AND P.A. BUCKLEY  
 1978 "Impacts of Off-Road Vehicles on Coastal Ecosystems." In Proceedings of the Symposium on Technical, Environmental, Socioeconomic and Regulatory Aspects of Coastal Zone Planning and Management. San Francisco, CA.
- HOSIER, P.E.  
 1973 The Effects of Oceanic Overwash on the Vegetation of Core and Shackleford Banks, North Carolina. Doctoral dissertation. Durham, NC: Duke University.
- HOSIER, PAUL E., AND THOMAS E. EATON  
 1979 "Off-Road Vehicle Impact on Dune and Grassland Vegetation on a Southeastern North Carolina Barrier Beach." Manuscript submitted for publication. Universtiy of North Carolina, Wilmington, NC.
- KIRBY-SMITH, W.W., AND I.E. GRAY  
 1977 Checklist of Common Invertebrate Animals. Beaufort, NC: Duke University Marine Laboratory.

- LAZELL, J.D., JR.  
1972 Reptiles and Amphibians From the Intra-capes Ecological Zone, as of 5 July 1972. Lincoln, MA: Massachusetts Audubon Society.
- LEATHERMAN, STEPHEN P., AND PAUL J. GODFREY  
1979 The Impact of Off-road Vehicles on Coastal Ecosystems in Cape Cod National Seashore: An Overview. UM/NPS CRU Report No. 34. Amherst, MA: University of Massachusetts, National Park Service Cooperative Research Unit.
- LIDDLE, M.J., AND P. GREIG-SMITH  
1974 "A Survey of Tracks and Paths in a Sand Dune Ecosystem, II Vegetation." Journal of Applied Ecology 12:909-30.
- NORTH CAROLINA DEPARTMENT OF NATURAL AND ECONOMIC RESOURCES, DIVISION OF ENVIRONMENTAL MANAGEMENT  
1976 Rules, Regulations, Classification, and Water Quality Standards Applicable to the Surface Waters of North Carolina. Raleigh, NC: Water Quality Section.
- NORTH CAROLINA DIVISION OF MARINE FISHERIES  
1975 "Proposed National Park Service Boundary for Cape Lookout National Seashore," by Edward G. McCoy. Memorandum. Morehead City, NC.
- NORTH CAROLINA STATE MUSEUM OF NATURAL HISTORY  
1977 Endangered and Threatened Plants and Animals of North Carolina, by John E. Cooper, ed. Raleigh, NC.
- PARNELL, JAMES F., AND ROBERT F. SOOTS, JR.  
1979 Atlas of Colonial Waterbirds of North Carolina Estuaries. Sea Grant Publication UNC-SG-78-10. Wilmington, NC: University of North Carolina at Wilmington.
- SNOW, ALLISON, AND PAUL J. GODFREY  
1978 The Vegetation of Cape Lookout National Seashore. Contract PX-500-7-0859. Amherst, MA: University of Massachusetts, Department of Botany and National Park Service Cooperative Research Unit.
- U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE  
1973 Seacoast Plants of the Carolinas for Conservation and Beautification, by Karl E. Graetz. UNC-SG-73-06. Raleigh, NC.
- U.S. DEPARTMENT OF COMMERCE, NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION  
1976 Nursery Area Survey of the Outer Banks Region, by Maury Wolff. Project No. 2-222-R. Morehead City, NC: National Marine Fisheries Service.

- U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE
- 1955 Report on the Seashore Recreation Area Survey of the Atlantic and Gulf Coast.
- 1970 Oceanic Overwash and its Ecological Implications on the Outer Banks of North Carolina, by Paul J. Godfrey. Washington, DC: Office of Natural Science Studies.
- 1973 "Dune Stabilization Study (Related): Cape Hatteras and Cape Lookout National Seashores," by Cheryl McCaffrey. In Office of Natural Science Annual Report for Calendar Year 1972. Washington, DC: Office of Natural Science Studies.
- 1973 "Shorebird Use at Cape Hatteras and Cape Lookout in Fall Migration, and Related Problems." Memorandum, Washington, DC: Office of Chief Scientist.
- U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE
- 1977 A Preliminary Resource Inventory of the Vertebrates and Vascular Plants of Cape Lookout National Seashore. Management Report No. 22. Beaufort, NC: Resource Management and Visitor Protection Staff, Cape Lookout National Seashore.
- 1979a Summary: CALO Marine Turtle Project 1978. Beaufort, NC: Resource Management and Visitor Protection Staff, Cape Lookout National Seashore.
- 1979b Off-Road Vehicle Effects on Beach Invertebrates at Assateague Island National Seashore, by S.P. Leatherman. Amherst, MA: University of Massachusetts, National Park Service Cooperative Research Unit.
- UNIVERSITY OF NORTH CAROLINA
- 1979 "Coastal Studies." Sea Grant College Newsletter (January). Raleigh, NC.
- WHEELER, NANCY R.
- 1978 Off-road Vehicle (ORV) Effects on Representative Infauna and a Comparison of Predator-Induced Mortality by Polinices Duplicatus and ORV Activity on Mya Arenaria at Hatches Harbor, Provincetown, Massachusetts. Master's thesis. Amherst, MA: University of Massachusetts.

PLANNING TEAM

W. Drew Chick, Jr., Park Planner (Team Captain)  
Denver Service Center

Janet Bergquist Dixon, Environmental Specialist  
Denver Service Center

Jeffrey E. Heywood, Landscape Architect  
Denver Service Center

William R. Jones, Visitor-Use Planner  
Denver Service Center

Preston D. Riddel, Superintendent, and Staff  
Cape Lookout National Seashore

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by the graphics staff of the Denver Service Center. NPS 770B