

# **PURPOSE OF AND NEED FOR ACTION**

## **INTRODUCTION**

This “Purpose of and Need for Action” chapter describes the reasons why the National Park Service (NPS) is taking action at this time to evaluate a range of alternatives and management actions for sensitive species protection at Cape Hatteras National Seashore (the seashore or the park). This *Interim Protected Species Management Strategy/Environmental Assessment* (strategy/EA) presents three action alternatives for managing sensitive species and assesses the impacts that could result from continuing current management (the no-action alternative) or implementing any of the three action alternatives. Upon conclusion of this strategy/EA and decision-making process, one of the four alternatives will become the interim protected species management strategy and guide future actions while a long-term off-road vehicle (ORV) management plan/environmental impact statement (EIS) is developed for the seashore.

### **PURPOSE OF AND NEED FOR ACTION**

The “Purpose of the Strategy” explains what this strategy/EA intends to accomplish. The “Need for Action” explains why action is necessary at this time. Brief summaries of both purpose and need are presented here; however, more information is available in the “Background” section of this chapter.

### **PURPOSE OF THE STRATEGY**

The purpose of taking action at this time is to evaluate and implement strategies to protect sensitive species and provide for recreational use as directed in the enabling legislation, NPS management policies, and other laws and mandates, until a long-term ORV management plan/EIS is developed.

### **NEED FOR ACTION**

An interim protected species management strategy/EA would meet the following needs until the long-term ORV management plan/EIS is completed:

- The need for a clear and consistent set of management strategies. The lack of an approved strategy over time has led to inconsistent management of protected species and has created confusion for both the public and the seashore staff.
- The need for a management strategy on which to consult with the U.S. Fish and Wildlife Service under Section 7 of the Endangered Species Act.
- The need for a management strategy that complies with the Endangered Species Act, the Migratory Bird Treaty Act, NPS management policies, and park enabling legislation, and that avoids adverse affects to protected species.
- The need to immediately address public concerns about species management and recreational use.

### **OBJECTIVES IN TAKING ACTION**

Objectives are “what must be achieved to a large degree for the action to be considered a success” (Director’s Order 12). All alternatives selected for detailed analysis must meet project objectives to a large degree, and resolve the purpose of and need for action. Objectives must be grounded in the park’s enabling legislation, purpose, significance, and mission goals, and must be compatible with direction and guidance provided by the seashore’s general management plan, strategic plan, and/or other management guidance. The following are objectives for developing this strategy/EA:

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- **Management Methodology**
  - Establish an ongoing and meaningful dialogue with the multiple public groups interested in and affected by protected species management to ensure development of an implementable strategy/EA.
  - Establish adaptive interim management practices and procedures that allow for responding to changes in the seashore's dynamic physical and biological environment.
  - Establish procedures for prompt and efficient public notification of protected species management actions and the reasons for these actions.
- **Visitor Use and Experience**
  - Provide for continued recreational use and access consistent with required management of protected species.
  - Increase opportunities for public awareness and understanding of NPS resource management and visitor use policies and responsibilities as they pertain to the seashore and protected species management.
- **Threatened, Endangered, and Other Protected Species**
  - For threatened, endangered, and other protected species (e.g., state-listed species) and their habitats, provide protection from adverse impacts related to recreational uses as required by laws and policies, such as the Migratory Bird Treaty Act, the Endangered Species Act, and NPS management policies.
  - Cooperate with the U.S. Fish and Wildlife Service to ensure that NPS management actions comply with the requirements of the Endangered Species Act.
- **Seashore Management and Operations**
  - Provide for effective protected species management while maintaining other seashore operations.

## PROJECT SITE LOCATION

Officially authorized in 1937 along the Outer Banks of North Carolina, Cape Hatteras is the nation's first national seashore. Consisting of more than 30,000 acres distributed along 62 miles of shoreline, Cape Hatteras National Seashore is part of a dynamic barrier island system. Federal ownership in the seashore extends from ocean to sound across three barrier islands—Ocracoke, Hatteras, and Bodie—spanning Dare and Hyde counties (see "Figure 1: Vicinity Map"). The U.S. Coast Guard property and eight village enclaves are excluded from the seashore boundaries. The villages include Rodanthe, Waves, Salvo, Avon, Buxton, Frisco, and Hatteras on Hatteras Island and Ocracoke on Ocracoke Island. On the oceanside of the villages, federal ownership was established as a 500-foot strip measured landward from the mean low water at the time of acquisition. A larger area seaward of Buxton and Frisco includes portions of Buxton Woods. The 5,880-acre Pea Island National Wildlife Refuge, located at the northern end of Hatteras Island, is part of the seashore, but administered for refuge purposes by the U.S. Fish and Wildlife Service (NPS 1997).

The geographic study area for this strategy/EA includes the three islands of Cape Hatteras National Seashore—Ocracoke, Hatteras, and Bodie (see "Figure 2: Cape Hatteras National Seashore Map").



FIGURE 1: VICINITY MAP

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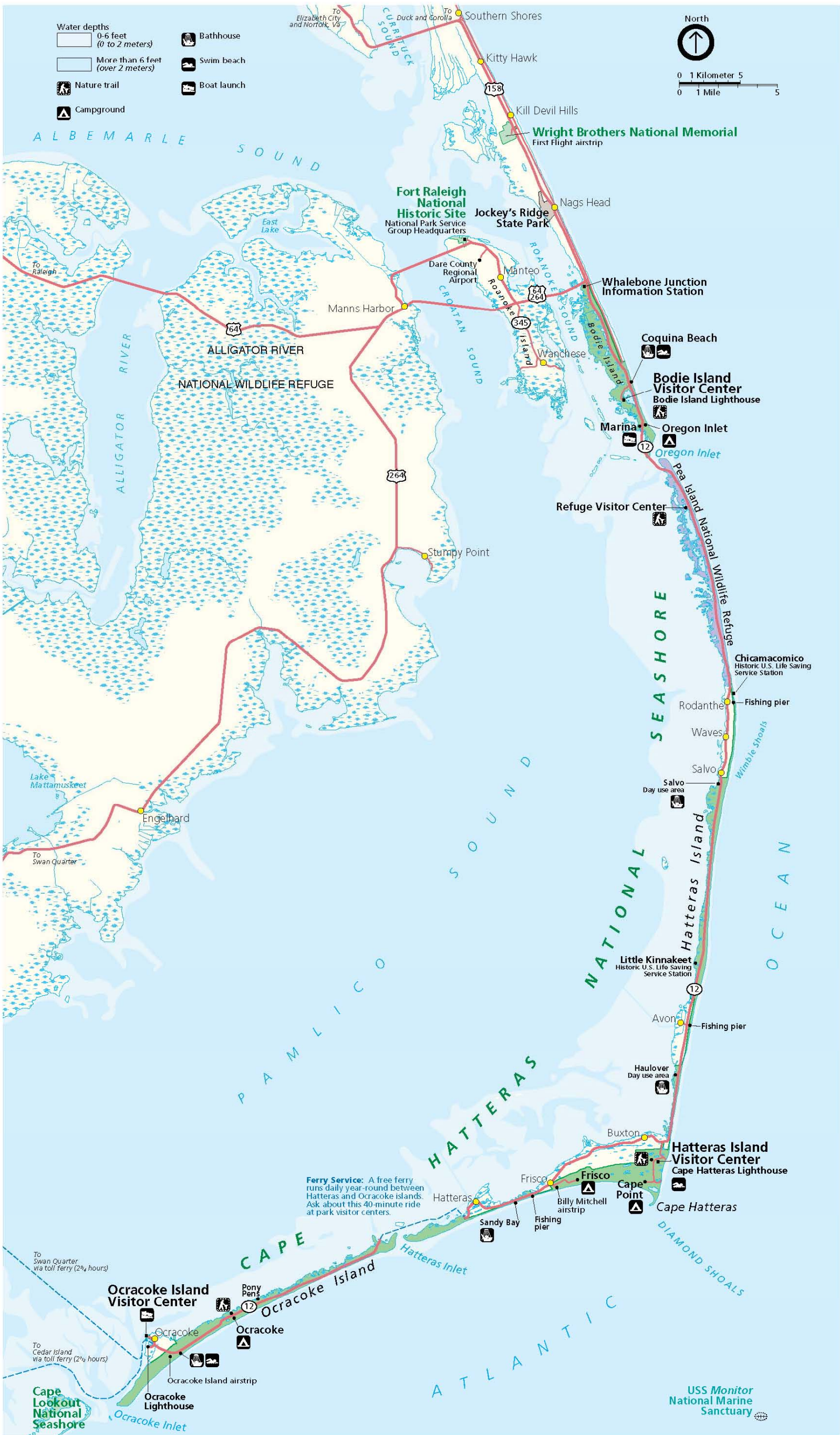


FIGURE 2: CAPE HATTERAS NATIONAL SEASHORE MAP

## PURPOSE OF AND NEED FOR ACTION

## BACKGROUND

The Outer Banks of North Carolina formed as a result of changes in sea level, wave and wind action, and ocean currents. These factors continue to influence the islands today through the processes of erosion and accretion of the shoreline; overwash across the islands; and the formation, migration, and closure of the inlets (NPS 1997). Since the 1930s, these natural processes have been influenced by human actions such as dredging inlets and building sand berms to protect roads and homes.

While the number of human visitors to Cape Hatteras National Seashore has grown, the breeding population of the federally threatened piping plover (*Charadrius melodus*) (USFWS 1996a) and the occurrence of seabeach amaranth (*Amaranthus pumilus*) (USFWS 1996b) have declined within the seashore. Furthermore, statewide declines were documented for common terns (*Sterna hirundo*), least terns (*Sterna antillarum*), gull-billed terns (*Sterna nilotica*), black skimmers (*Rynchops niger*), and American oystercatchers (*Haematopus palliatus*); all of which are, or are being considered for listing as, Species of Special Concern by the North Carolina Wildlife Resources Commission. Recreational pressure has been implicated in low reproductive success and declining population trends for all of these species, as well as for disturbance and/or mortality of migrating and wintering piping plovers, colonial waterbirds, and oystercatchers and adults, nests, and hatchlings of the three species of sea turtles that nest at the seashore [the federally threatened loggerhead (*Caretta caretta*) and the federally endangered green turtle (*Chelonia mydas*) and leatherback turtle (*Dermochelys coriacea*)] (NMFS and USFWS 1991a, NMFS and USFWS 1991b, NMFS and USFWS 1992).

Increased use by the public for recreational purposes has necessitated the development of a long-term ORV management plan/EIS to meet the requirements for protection of federally listed species under Sections 7(a) (1) and (2) of the Endangered Species Act and other state and park listed sensitive species. According to the 2001 NPS Management Guidelines: “The NPS will survey for, protect, and strive to recover all species native to national park system units that are listed under the Endangered Species Act. The Service will fully meet its obligations under the NPS Organic Act and the Endangered Species Act to both pro-actively conserve listed species and prevent detrimental effects on these species.” The Endangered Species Act directs federal agencies to carry out programs for the conservation of endangered and threatened species, and to ensure that any action authorized, funded, or carried out by an agency is not likely to jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of critical habitat.

On May 17, 2005, Defenders of Wildlife (Defenders), a non-profit environmental organization, issued a notice of intent to sue the NPS for alleged violations of the Endangered Species Act, 16 U.S.C. §§ 1531 et seq., National Environmental Policy Act (NEPA), 42 U.S.C. §§ 4321 et seq., the Migratory Bird Treaty Act, 16 U.S.C. §§ 703 et seq., the NPS Organic Act, 16 U.S.C. §§ 1601 et seq., and the enabling legislation for Cape Hatteras National Seashore, 50 Stat. 669 (1937). Defenders alleged that the NPS continuing authorization of ORV use at Cape Hatteras National Seashore without first engaging in formal consultation with the U.S. Fish and Wildlife Service “violates the agency’s obligations under the [Endangered Species Act] to carry out programs for the conservation of endangered and threatened species and may be resulting in the take of those species.” Defenders also alleged that the continued authorization of ORV use at the seashore without an assessment of environmental impact violates NEPA. Defenders alleged that NPS actions have also caused the death of numerous migratory birds in violation of the Migratory Bird Treaty Act. Lastly, Defenders argued that “the NPS has flagrantly acted contrary to two executive orders, agency regulations, and the organic acts of both [Cape Hatteras National Seashore] and the NPS by authorizing ORV use without first developing a long-term ORV management plan/EIS in a national seashore area intended to be ‘permanently reserved as a primitive wilderness’” 50 Stat.669 (1937).

Until the long-term ORV management plan/EIS is complete, the NPS wishes to establish an interim protected species management strategy/EA to ensure for the proper management of protected species and comply with the Endangered Species Act, while also providing for adequate use of the seashore's recreational resources. The species addressed in this strategy/EA are those specifically affected by recreation use within the seashore that are listed federally or by the state as threatened, endangered, or species of special concern and/or are of special concern to the seashore. To implement such a strategy, NPS must complete an environmental assessment in accordance with NEPA.

## **SUMMARY OF PROTECTED SPECIES MANAGEMENT AT CAPE HATTERAS NATIONAL SEASHORE**

Providing a variety of important habitats, Cape Hatteras National Seashore plays a vital role in the survival of many wildlife species. Whether for nesting, resting, or feeding, the seashore provides for a diverse assemblage of birds. Rich, varied habitats and locations along the Atlantic Flyway contribute in attracting birds to the seashore. In 1999, the American Bird Conservancy designated Cape Hatteras National Seashore as a Globally Important Bird Area in recognition of the value the seashore provides to bird migration, breeding, and wintering (American Bird Conservancy 2005). The seashore is home to the federally listed piping plover. In addition, the seashore provides nesting habitat for several species of state-listed colonial waterbirds, including the common tern, least tern, gull-billed tern, and black skimmer. Solitary nesters, such as the American oystercatcher and Wilson's plover (*Charadrius wilsonia*) also use Cape Hatteras National Seashore as a breeding ground as well as the red knot (*Calidris canutus rufa*), which uses the seashore as wintering habitat during spring and fall migrations.

Cape Hatteras National Seashore is used as nesting habitat by three federally listed sea turtles: the loggerhead, green, and leatherback. Two other federally listed sea turtle species, the hawksbill (*Eretmochelys imbricata*) and Kemp's ridley (*Lepidochelys kempii*), occupy the surrounding waters.

The federally listed seabeach amaranth, a coastal plant, has also been documented at the seashore.

As part of a recently initiated consultation with the U.S. Fish and Wildlife Service, under Section 7 of the Endangered Species Act, and in consultation with the North Carolina Wildlife Resources Commission, the NPS executed an interagency agreement with the U.S. Geological Survey, Biological Resources Division, to prepare scientifically defensible monitoring and protection protocols for federal and state-listed species, and other protected species at the seashore. On October 31, 2005, the U.S. Geological Survey released its species protocols for piping plovers, American oystercatchers, colonial waterbirds, sea turtles, and seabeach amaranth at Cape Hatteras National Seashore.

Using best available scientific information, the protocols provide specific guidance for the implementation of a proactive protected species surveying and habitat conservation program to enable the continued existence and recovery of endangered, threatened, and species of concern at the seashore. The protocols provide detailed and specific guidance for conservation of each species including topics such as closures, surveying, monitoring frequency and methodology, and identification of specific habitat needs and potential key threats. Experts from the U.S. Fish and Wildlife Service, North Carolina Wildlife Resource Commission, NPS, and academia reviewed the draft protocols to ensure they were scientifically defensible and met regulatory requirements. NPS considered the protocols and incorporated some elements of the U.S. Geological Survey recommendations into the alternatives for this strategy/EA. The protocols do not balance the need for species protection with other activities at the seashore, nor do they consult NPS management policies in detail.

All the above listed species are discussed in detail in the "Affected Environment" chapter of this document. The following provides a brief description of the status of the species at the seashore and existing management.



## PROTECTED BIRD SPECIES

### Piping Plover

Cape Hatteras National Seashore is home to the Atlantic Coast piping plover population, which ranges from the Maritime Provinces of Canada to the Outer Banks of North Carolina as well as migrating birds from the Great Lakes (along Lake Superior and Lake Michigan) and Great Plains populations (from southern prairie Canada to Iowa) (USFWS 1996a, 2003). Piping plover was listed as threatened in 1986. From 1989 to 2003, the number of breeding pairs in North Carolina declined by more than 50% (USFWS 2004b). The Atlantic Coast population recovery plan recommends that piping plover populations and breeding habitat be managed to maximize survival and productivity through survey and management of wintering and migration areas to maximize survival and recruitment into the breeding population, undertaking scientific investigations that will facilitate recovery efforts, developing and implementing public information and education programs, and reviewing progress towards recovery of the species annually, revising recovery efforts as appropriate (USFWS 1996a).

Wintering grounds for the Great Lake population range from North Carolina to Florida and along the Florida Gulf Coast to Texas, Mexico, and the Caribbean Islands. On these wintering grounds, piping plovers forage and roost along barrier and mainland beaches, sand, mud, algal flats, washover passes, salt marshes, and coastal lagoons. The Great Lakes population recovery plan includes strategies to increase average reproduction, protect essential breeding and wintering habitat, increase genetic diversity to levels needed to maintain population persistence, increase public education and outreach, and establish and maintain funding mechanisms and partnerships for long-term protection and management (USFWS 2003).

The NPS began monitoring breeding piping plovers at Cape Hatteras National Seashore in 1989, documenting plover presence on nesting grounds and developing annual reports documenting their findings. Non-breeding surveys were limited; the seashore participated in International Winter Piping Plover Surveys conducted once every five years beginning in 1991. Non-breeding surveys were conducted more frequently after 2000 when the North Carolina Wildlife Commission began compiling a database. Efforts were made to survey spits at least three times a month during fall migration and once a month during winter season (NPS 2006). The 2003 report of piping plover activities at the seashore states that fledging rates remain well below what the U.S. Fish and Wildlife Service believes is necessary to sustain or rebuild a piping plover population at the seashore (Lyons 2003). Surveying and management occurs through all life-cycle stages, pre-nesting to fledging, and includes the use of closures and buffers to protect nests and unfledged chicks.

### American Oystercatcher

North Carolina supports approximately 327 pairs of American oystercatchers, a large, conspicuous shorebird with long pink legs and a long, bright reddish orange bill identified in the *U.S. Shorebird Conservation Plan* as a “Species of High Concern” (USFWS 2004a). Studies estimate the Outer Banks region of North Carolina supports 90 breeding pairs or 27% of the state population (Simon et al. 2004). Oystercatcher breeding success in North Carolina has been extremely low, with one egg in 32 hatching (Davis et al. 2001). In response to low reproductive rates in 2005, the North Carolina Wildlife Resources Commission and the Southeastern Shorebird Conservation Plan proposed listing the American oystercatcher as a state-listed species of special concern (Myers 2005). The listing has yet to be approved by the state General Assembly (J. Gerwin, State Curator of Birds, pers. comm., M. Lyons, NPS, September 9, 2005).

Surveying of the American oystercatcher at the seashore has occurred for the past five years. The seashore has sustained declines in numbers of breeding pairs since the 1990s. The overall trends at Cape Hatteras National Seashore indicate that in less than a decade, American oystercatcher nesting attempts could decline to a scattered few (less than five) per island per year (Myers 2005). Surveying and

management occurs through all life-cycle stages, pre-nesting to fledging and includes the use of closures and buffers to protect nests and unfledged chicks.

### **Colonial Waterbirds**

Ground nesting colonial waterbirds breed along the seashore beaches, which also host nesting sites for other birds as well as a range of recreational activities. Colonial waterbirds identified as species to consider in the development of this strategy/EA include gull-billed terns, common terns, least terns, and black skimmers. Gull-billed terns are a state-listed threatened species and the other three are state-listed species of special concern (Erwin 2005). None of these species are federally listed.

The Outer Banks region of North Carolina supports a large number of colonial waterbird species that depend upon its extensive sounds and the nearshore waters for feeding, and relatively undisturbed islands for nesting. Most species of colonial waterbirds are in jeopardy in the state (Parnell et al. 1977) due to a decline in numbers over the past 20 to 30 years. At the seashore, recent nesting by colonial waterbirds has been rather limited relative to population levels from the 1970s (Erwin 2005).

Colonial waterbird breeding surveys have been conducted at the seashore since 1977 by seashore staff, the North Carolina Wildlife Resources Commission, and Dr. James Parnell of University of North Carolina (NPS 2003a). Little management is currently done during the critical stages of colony site prospecting and establishment. Restrictions apply only when a colony is established.

### **Wilson's Plover**

Wilson's plover, readily distinguished from other similar ringed plovers by its larger size, distinctive bill, and flesh-colored legs, has been proposed for listing as a state-listed species of special concern and is identified in the *U.S. Shorebird Conservation Plan* as a "Species of High Concern" (USFWS 2004a). Cape Hatteras National Seashore does not specifically survey for Wilson's plovers, but notes their presence when surveying for other bird species. A 2004 survey of the entire coast of North Carolina yielded 232 pairs of Wilson's plover. Of those, Cape Hatteras National Seashore supported two pairs of Wilson's plover on Ocracoke Island.

### **Red Knot**

The red knot is a shorebird that breeds in the Canadian arctic and is known to visit North Carolina, the Outer Banks, Cape Hatteras National Seashore, and the entire eastern seaboard of the United States only as a migrant and occasional winter resident (Harrington 2001). Red knot has also been identified in the *U.S. Shorebird Conservation Plan* as a "Species of High Concern" (USFWS 2004a). Currently the seashore surveys for red knot while surveying for other protected species during the winter migrating months and no specific management measures are taken for the species.

### **SEA TURTLES**

Although five species of federally-listed sea turtles are known to occur at Cape Hatteras National Seashore, three are known to nest there: loggerhead, green, and leatherback. Cape Hatteras National Seashore lies near the northern proximity of nesting sea turtles. The North Carolina Wildlife Resources Commission issues the seashore a permit for managing the turtle populations yearly, under the authority of the U.S. Fish and Wildlife Service. Surveying and management of the sea turtles at the seashore follow the guidelines, where appropriate, set forth in the individual sea turtle recovery plans (NMFS and USFWS 1991a, 1991b, 1992) and the North Carolina Wildlife Resources Commission's Handbook for Sea Turtle Volunteers in North Carolina (NCWRC 2003). Monitoring for nesting species of sea turtle was infrequent in the 1970s. Efforts increased beginning in 1983 and became more comprehensive by 1990 with all seashore beaches being patrolled daily from June 1 through August 31. Seashore staff conduct dawn patrols to locate crawls along the beach and it is determined whether activities represent nests or false crawls. If a nest is present, every effort is made to leave it in place. Nests are only moved according to state guidelines.

### **Loggerhead Sea Turtles**

Loggerhead sea turtles were listed as threatened in 1978. The recovery plan identifies coastal development, commercial fisheries, and pollution and threats to the loggerhead population (USFWS 1991a). The six actions needed to achieve recovery are (1) provide long-term protection to important nesting beaches, (2) ensure at least 60% hatch success on major nesting beaches, (3) implement effective lighting ordinances or lighting plans on all major nesting beaches within each state, (4) determine distribution and seasonal movements for all life stages in a marine environment, (5) minimize mortality from commercial fisheries, and (6) reduce the threat from marine pollution.

The loggerhead is by far the most numerous sea turtle to nest at Cape Hatteras National Seashore.

### **Green Sea Turtles**

Green sea turtles are known to nest at Cape Hatteras National Seashore, but at fewer numbers than the loggerhead (Altman and Lyons 2003). According to a survey conducted by North Carolina Wildlife Resources Commission between 1980 and 1999, the first documented nest was found in 1988.

### **Leatherback Sea Turtles**

Leatherback sea turtles are infrequent nesters in North Carolina. Cape Hatteras National Seashore is the northernmost nesting site for leatherbacks on the Atlantic Coast (Rabon et al. 2003). Leatherback nesting was documented in 1998, 2000, 2002, 2003, and 2004.

### **SEABEACH AMARANTH**

Seabeach amaranth is an annual plant native to barrier island beaches along the Atlantic Coast, including those within the Cape Hatteras National Seashore. Historically, seabeach amaranth was found in nine states from Massachusetts to South Carolina, but was federally listed as threatened by the U.S. Fish and Wildlife Service in 1993 due to its vulnerability to human and natural impacts and the fact that it had been eliminated from two-thirds of its historic range (USFWS 1996b).

Cape Hatteras National Seashore staff has conducted annual surveys of seabeach amaranth since 1985 with the exception of 1991 through 1995. Though annual reports were not done each year, information has been entered into a database. Since 2000, seabeach amaranth has been found within the Cape Hatteras National Seashore at locations including the upper dry sand flats at Cape Hatteras Point (Cape Point and South Beach), in a line of small dunes adjacent to the flats at Hatteras Inlet Spit, at Bodie Island Spit, and at the base of dunes on the beach on the northern half of Ocracoke Island. Most areas where the plants have been found were either in established bird closures or other areas closed to vehicular traffic (NPS 2000b; Lyons 2001; M. Lyons, NPS, pers. comm., S. Smith, Louis Berger Group, Inc., October 7, 2005).

### **RECREATION AND PROTECTED SPECIES MANAGEMENT**

Not only does Cape Hatteras National Seashore provide habitat for a variety of federal and state listed species and sensitive species, it serves as a popular recreation destination, with nearly 2.2 million visitors in 2004 (NPS 2005e). Following its enabling legislation and mission, Cape Hatteras National Seashore must find balance in the needs for species protection and visitor use. ORV use on the seashore beaches predates the establishment of Cape Hatteras National Seashore and is considered an appropriate visitor use. ORVs are currently used to provide vehicular access onto the seashore beaches for recreational purposes, including surf fishing, surfboarding, sunbathing, swimming, bird watching, scenic driving, etc.

On February 8, 1972, President Richard Nixon issued Executive Order 11644: *Use of Off-road Vehicles on the Public Lands* to “establish policies and provide for procedures that will ensure the use of ORVs on public lands will be controlled and directed so as to protect the resources of those lands, to promote the safety of all users of those lands, and to minimize conflicts among the various uses of those lands.” The executive order directs agencies to develop and issue regulations and administrative instructions to

provide for administrative designation of the specific areas and trails on public lands on which the use of ORVs may be permitted, and areas in which the use of ORVs may not be permitted.

Executive Order 11989: *Off-Road Vehicles on Public Lands*, issued on May 24, 1977, by President Jimmy Carter, directs agencies to immediately close off-road areas or trails when it is determined that the use of ORVs will cause or is causing considerable adverse effects on the soil, vegetation, wildlife, wildlife habitat, or cultural or historic resources to the type of ORV causing such effects, until such time as determined that such adverse effects have been eliminated and measures have been implemented to prevent future recurrence. Also included in the executive order is the authority to adopt the policy that portions of the public lands under an agency's jurisdiction shall be closed to use by ORVs except those areas or trails that are suitable and specifically designated as open to such use.

Seashore actions related to ORV management began in response to Executive Order 11644, with the establishment of draft guidelines for ORV use. Following the issuance of Executive Order 11989 (*Off-Road Vehicles on Public Lands*, May 24, 1977), the seashore initiated the development of an ORV management plan. The result was the 1978 Draft Interim ORV Management Plan, which established guidelines and controls for off-road use of vehicles in Cape Hatteras National Seashore until promulgation and adoption of the general management plan that was under development during that time. This plan divided the seashore into zones and described the management that would occur in each zone. ORV management was also addressed in the ORV Plan - North District Cape Hatteras National Seashore (NPS 1980) and the General Management Plan/Development Concept Plan for Cape Hatteras National Seashore (1984). More recently, Superintendent's Order 07: ORV Management was issued in 2004.

ORVs can access oceanside and some soundside beaches without obtaining a permit, 24 hours a day, 365 days a year, excluding areas closed for resource protection or safety reasons.

Recreational use, including the use of ORVs, influences the habitat of protected species. Use of ORVs at the seashore predates authorization of Cape Hatteras National Seashore in 1937. Historically, before 1954, local residents and visitors used the beaches for vehicular transportation purposes. In 1954, North Carolina State Highway 12 (NC-12) was paved, providing a formal transportation route. The paving of NC-12, the completion of the Bonner Bridge connecting Bodie and Hatteras Islands in 1963, and the introduction of the State of North Carolina ferry system to Ocracoke Island facilitated visitor access to the islands and resulted in increased vehicle use on beaches for recreational purposes (NPS 2004d). Residents adapted ORVs to facilitate commercial fish netting. Sport fishermen used ORVs to pursue migrating schools of game fish and to reach more productive areas such as Cape Point or the inlets, which were often a mile or more from the nearest paved surface. Currently at the seashore, ORVs are used for commercial and recreational fishing, sightseeing, travel to and from swimming and surfing areas, and pleasure driving (NPS 2004b). In 2004, the NPS began preliminary planning for ORV management as required by federal law and regulations.

The long term ORV management planning effort is based on the recognition by the NPS that ORVs must be regulated in a manner that is not only consistent with applicable law, but also appropriately addresses resource protection (including protected and threatened and endangered species), potential conflicts among the various seashore users, and visitor safety. Executive Orders 11644 and 11989 require certain federal agencies permitting ORV use on agency lands to publish regulations designating specific trails and areas for this use. Title 36, section 4.10 of the Code of Federal Regulations implements the executive orders by providing that routes and areas designated for ORV use shall be promulgated as special regulations. Section 4.10 also provides that the designation of routes and areas shall comply with Executive Order 11644 and with section 1.5 of Title 36 of the Code of Federal Regulations.

The NPS has contracted with the U.S. Institute for Environmental Conflict Resolution to assess the feasibility of using negotiated rulemaking to reach consensus among interested parties in development of the required special regulation for Cape Hatteras National Seashore. This facilitated approach has been used at other national park sites to reach consensus on regulations. If negotiated rulemaking is feasible,

the NPS would carry out and complete the rulemaking process concurrently with the development of a long-term ORV management plan/EIS for the seashore. The NPS has assigned a high priority to completing the long-term plan/EIS and regulations.

## **SCOPING PROCESS AND PUBLIC PARTICIPATION**

NEPA regulations require an “early and open process for determining the scope of issues to be addressed and for identifying the significant issues related to a proposed action.” To determine the scope of issues to be analyzed in depth in this strategy/EA, meetings were conducted with seashore staff and other parties associated with preparing this document, including public information meetings and public scoping meetings.

### **INFORMATION SESSIONS**

The public was given the opportunity to learn about the planning process during seven information sessions held in early October 2005. Three of the sessions were held from 7:00 PM to 9:00 PM on October 3 at the Wright Brothers National Memorial First Flight Centennial Pavilion, October 4 at the Dare County Fessenden Center in Buxton, and October 5th at the Ocracoke Community Center. A facilitator led a question-and-answer meeting format and a court reporter accurately captured a record of questions asked and NPS responses. Sixteen people attended the meeting at Wright Brothers National Memorial First Flight Centennial Pavilion, 96 people attended the meeting in Buxton, and 6 people attended the meeting in Ocracoke.

In addition, four open-house sessions allowed the public to ask seashore staff questions and provide input to the seashore in a more informal atmosphere. These sessions occurred October 5 from 12:00 PM to 2:00 PM at the Rodanthe/Waves/Salvo Community Building, October 6 from 12:00 PM to 2:00 PM at the Wright Brothers National Memorial First Flight Centennial Pavilion; October 6 from 4:00 PM to 6:00 PM at the Graveyard of the Atlantic Museum, and October 11 from 4:00 PM to 6:00 PM at the NPS Ocracoke Maintenance Building. A court reporter and facilitator were not present at these sessions; however, NPS representatives did record comments. Approximately 35 people attended these four sessions.

### **PUBLIC SCOPING MEETINGS**

In early November 2005, three public scoping meetings were held to solicit public input, focusing on issues and potential alternative elements. Public participation is vital to the NPS NEPA planning process, and public scoping is an early and open process used to determine the scope of issues and alternatives to be addressed in this strategy/EA.

The meetings were held on November 1 from 5:30 PM to 9:00 PM at the Dare County Fessenden Center in Buxton, November 2 from 5:30 PM to 9:00 PM at the Wright Brothers National Memorial First Flight Centennial Pavilion, and November 3 from 5:30 PM to 9:00 PM at the City Museum in Washington, D.C. A total of 140 people attended the meeting in Buxton, 33 people attended the meeting at the Wright Brothers National Memorial First Flight Centennial Pavilion, and 18 people attended the meeting in Washington, D.C.

To keep the public involved and informed following the public scoping meetings, individuals were given the option to receive notification of the availability of this document by either e-mail or mail, and the option to either download a copy or have a hardcopy mailed to them. Individuals were also given the option not to be placed on the any mailing list, and an option to keep their name and address private.

NPS provided the public with a 30-day opportunity to participate in public scoping through the mail or on-line on the Planning, Environment, and Public Comment (PEPC) website. NPS posted information about the public scoping meetings and additional comment opportunities on October 17, 2005, with a November 17, 2005, deadline for comments.

Though comments varied greatly, most comments focused on past and future NPS protected species management actions, ORV management actions, visitor use and experience, and concerns about potential economic impacts. Comments also focused on specific actions presented in the initial alternatives. It was



explained that comments received should focus on this strategy/EA, but may also be applicable to longer term ORV management that would be handled by a regulation development process and environmental impact statement. The opportunity for input into that process will be announced in coming months.

In response to public input and issues expressed during the scoping process, the interdisciplinary planning team reworked the conceptual alternatives presented at the meetings to those analyzed in this strategy/EA.

As a result of this scoping effort (see the “Consultation and Coordination” chapter for additional information), several issues and impact topics were identified as requiring further analysis in this strategy/EA.

## **ISSUES AND IMPACT TOPICS**

Issues describe problems or concerns associated with current impacts from environmental conditions or current operations, as well as problems that may arise from the implementation of any of the alternatives. Seashore staff identified potential issues associated with this strategy/EA during internal scoping meetings, the public identified potential issues during public scoping, and state and federal agencies identified potential issues through correspondence.

- **Federally Listed Threatened and Endangered Species:** Recreational activities at the seashore could impact federally threatened or endangered species and their habitat on the beach and soundside of the seashore. Conflicts between the listed species and recreational use could create direct or indirect losses to the species.
- **State-listed and Special Status Species:** Habitat for the American oystercatcher and other locally sensitive species, as well as species listed by the State of North Carolina, may be vulnerable to recreational uses.
- **Other Wildlife and Wildlife Habitats:** Management of protected species at the seashore could result in adverse and beneficial impacts on other species using the same habitats.
- **Visitor Use and Experience:** Management of protected species could result in adverse and beneficial changes to visitor use and experience.
- **Economy of Communities within the Seashore:** Management of protected species could affect local and regional economy.
- **Local Commercial Fishing Activities:** Management of protected species could affect access or commercial fishing.

## **IMPACT TOPICS**

The following impact topics are discussed in the “Affected Environment” chapter and analyzed in the “Environmental Consequences” chapter. These topics are resources of concern that could be beneficially or adversely affected by the actions proposed under each alternative and are developed from the issues to ensure that the alternatives are evaluated and compared based on the most relevant topics.

### **Federally Listed Threatened and Endangered Species and Species of Special Concern**

**Impacts on piping plovers.** Both the Great Lakes (wintering) and Atlantic Coast (breeding and migration) populations of the piping plover use the seashore. Piping plovers are known to exhibit site fidelity, making consistent protection of breeding sites important. At the seashore, piping plovers are found both on the oceanside and soundside of the islands.

**Impacts on sea turtles.** Federally listed sea turtles (loggerhead, green, leatherback, hawksbill, and Kemp's ridley) occur or nest at the seashore. In the past, the seashore relocated turtle nests to protect them from ORV and other visitor traffic, but the U.S. Fish and Wildlife Service expressed concern that too many nests were being relocated. In response, the seashore started to post signs and close areas to protect the nests in place, rather than relocating the nests. Seashore staff stated that they may not have communicated to the seashore users why this change was made, resulting in complaints from seashore users regarding the closures to ORV use. Turtle closure or relocation plans under this strategy/EA would impact all recreational users by either opening or closing areas of the seashore to use.

**Impacts on seabeach amaranth.** Seabeach amaranth is a federally listed plant species found in limited numbers at the seashore. This species is found only where there is no disturbance from ORV driving or other activities. Seashore staff believe it would be more widespread if there were more areas with less disturbance.

### **State Listed and Other Special Status Species**

**Impacts on other protected species.** Cape Hatteras National Seashore supports a rich and varied bird community. To reflect this diversity, the American Bird Conservancy designated the seashore a Globally Important Bird Area (American Bird Conservancy 2005). Ground nesting colonial waterbirds breed along the seashore beaches, which are also heavily used for recreation.

In 2004, the North Carolina Wildlife Resources Commission listed the American oystercatcher as significantly rare. In October 2004, meetings were held to discuss the status of some species in the state, including the American oystercatcher, and as a result, it was recommended that the state listing be changed to species of special concern. The *Southeastern Shorebird Conservation Plan* also listed the American oystercatcher as a "Species of High Concern" (USFWS 2004a). The 2003 seashore report on the American oystercatcher states that the breeding efforts of this species have not been successful for the past four years (NPS 2003b).

Contributing to these low reproductive rates at the seashore is the need for large undisturbed areas required for successful breeding. Frequent human disturbance can cause the abandonment of nest sites as well as direct loss of eggs and chicks. The 2003 report stated that many breeding sites were located on beaches with high visitor use, especially on Bodie and Hatteras Islands. It is unknown to what degree human activities directly or indirectly impact nesting efforts within the seashore. In addition to habitat loss from human disturbance, there have been cases of direct loss from ORVs running over chicks (NPS 2003b).

During public scoping it was stated that Wilson's plovers and red knots are other species of concern that should be included in this strategy/EA. Wilson's plover is not federally listed, but is proposed for listing by the State of North Carolina. On August 1, 2005, in response to the 80% decline in red knot population over the past ten years, conservation groups filed an emergency petition asking the U.S. Fish and Wildlife Service to list the red knot as an endangered species under the Endangered Species Act (Defenders of Wildlife 2005). Both species are listed as "Species of High Concern" by the *Southeastern Shorebird Conservation Plan* (USFWS 2004a). Because these species are present at the seashore and use similar habitats to other protected species and species of concern, there is a potential for impact on Wilson's plovers and red knots.

### **Other Wildlife and Wildlife Habitats**

**Impacts on other wildlife, including migratory birds and invertebrates.** Implementation of this strategy/EA would include resource closures, predator removal, and other management measures for the protected species. These closures and management measures may be used for other species (including other migratory birds) not included in this strategy/EA, and these closures may impact their populations as well. Beneficial impacts are possible as habitat would be protected for all migratory bird species and could also be adverse if an increase in protected species creates competition for resources. Other impacts

on wildlife from this strategy/EA include predator removal. These actions would negatively impact the predator populations, but provide benefits to native wildlife as these mainly non-native species are removed from the seashore.

### **Visitor Use and Experience**

**Impacts on visitor use and experience, including recreational activities.** Potential closures and other actions associated with this strategy/EA could affect recreational access, including ORV access, and the ability of seashore visitors to participate in a variety of recreational activities. Although the seashore's enabling legislation provides for a variety of recreational uses, ORV use is currently the predominant activity, both because it is a recreational use in itself and because it facilitates other uses such as fishing, swimming, sunbathing, and birding. Other beach users engage in these same activities on foot, and may be restricted from some areas as a result of protected species management.

**Impacts on local viewsheds and aesthetics.** Erecting carsonite posts around closure areas for protected species could have adverse impacts on the views and aesthetics of the area for those who want a natural view without evidence of man-made materials.

### **Socioeconomics**

**Impacts on the economy of communities within the seashore.** Limiting recreational access, including ORV use, at the seashore as a result of protected species management closures could have an adverse effect on local economies because these areas rely on ORV users purchasing goods and services for a large portion of their business. Eight villages located within the boundaries of the seashore serve as ORV access points to the seashore. These villages receive some level of economic benefit from this use as the ORV users take advantage of goods and services these communities offer. The communities are concerned that if this strategy/EA is implemented that includes extensive area closures making it harder for ORV users to use the area, fewer tourists may come to the area, resulting in impacts on the local economy.

**Impacts on local commercial fishing activities.** Currently, commercial fishermen have access to areas closed to other users because of safety (e.g., the beach is too narrow), but they do not have access to areas closed for resource protection. To qualify as a commercial fisherman, one must (1) be a resident of the Outer Banks, (2) possess identification that states the village where the person resides, and (3) obtain a commercial fishing permit issued by the state. Approximately 50 permits were issued in 2004. On Ocracoke Island, two soundside access points were identified for commercial uses. There is concern that the strategy/EA could impact access for these commercial fishermen.

### **Seashore Management and Operations**

**Impacts on seashore staffing and funding.** Under current staffing levels, over 100 resource closure and recreation related violations occur at Cape Hatteras National Seashore each year (N. Martinez, NPS, Chief Ranger, pers. communication, L. Gutman, LBG, November 10, 2005). There has been evidence of vehicular traffic in resource closures. This will continue without increased education, surveying, and law enforcement efforts to improve compliance. The 2003 piping plover, colonial waterbird, and American oystercatcher studies all noted that increased protection and education of closures was needed. The level of staff time and monetary resources required to implement a protected species management strategy and its associated closures are of concern. Species management activities at the seashore have varied over the last three years, but the level of staffing to accomplish these activities has remained relatively constant.

### **IMPACT TOPICS CONSIDERED BUT DISMISSED FROM FURTHER ANALYSIS**

The following impact topics were eliminated from further analysis and consideration following discussions with the seashore staff.

## **Soundscapes**

Vehicular and associated recreational noise is currently a component of the soundscape at the seashore, but is an element of the soundscape that is often incompatible with other recreational uses such as bird watching or enjoying solitude on the seashore beaches. Engine and recreational noise also create unsuitable habitat for seashore wildlife during breeding activities. Impacts related to soundscapes could occur wherever ORVs are allowed on the beach or along the sound. Actions within Cape Hatteras National Seashore must preserve natural quiet, while maintaining compliance with Director's Order 47: *Sound Preservation and Noise Management*.

Soundscapes is eliminated as a topic in this strategy/EA. The alternatives incorporate defined area closures and ORV corridors that would limit impacts on protected species at the seashore from vehicular and recreation noise to negligible or minor. Vehicles and people would be maintained at sufficient distances from breeding and nesting activity to prevent noise-related adverse impacts.

Additionally, the ambient sound levels or background noise levels at the seashore are generally louder than in other natural seashore environments due to the ocean environment. The background sound produced by surf of the ocean is approximately 65 dBA (a measure of sound) according to a report by the Noise Pollution Clearinghouse on jet skis (Komanoff and Shaw 2000). ORVs may be either sport utility vehicles or all-terrain vehicles at the seashore. On a highway, a sport utility vehicles (as represented by a truck) averages approximately 70 dBA at 50 feet and 50 miles per hour (mph), a speed that is substantially higher than the speed limits proposed at the seashore (FHWA 1980). Similarly, an all-terrain vehicle averages 72 dBA at the same distance when operated slower than 35 mph according to the Bluewater Network (1999). Vehicle noise is created from three sources: tires contacting a surface, engine noise, and wind over the vehicle. These measurements do not consider the soft surface of the sand, which would produce much less tire-related noise than a highway or hard-packed trail and the slow vehicle speeds (less than 25 mph) that would be required by the management strategies. These factors would reduce the vehicular noise of ORVs to less than the 65 dBA created by the ocean. At a distance of 50 feet or more, natural ocean sounds would most likely mask the sound of ORVs. Therefore, for this short-term strategy/EA, soundscapes was dismissed from further analysis.

## **Coastal Barrier Ecosystem**

A barrier island is a narrow, low-lying landform consisting of beaches, tidal flats, and sand dunes. Barrier beaches generally parallel ocean coasts and are separated by a lagoon or bay from the mainland, although some may be connected to the mainland. A barrier beach is a dynamic landform, constantly moving and reshaping in response to storms, sea level changes, and wave action. These processes are critical to the perpetuation of barrier beaches.

At Cape Cod National Seashore, five years of research were conducted to determine the ecologic and geomorphic effects of ORVs on coastal ecosystems. This research concluded that there was no carrying capacity for vehicular impact on coastal ecosystems and even low-level impacts can result in severe environmental degradation (UMASS 1979). A more recent study examined the ghost crab at Cape Hatteras National Seashore as an indicator for determining ecosystem health, since it may show the impacts of ORVs and other recreational uses. This study found that the presence of ORVs on the beaches of North Carolina have caused a dramatic decrease in the presence of ghost crab populations.

Similarly, the piping plover and other species considered in this strategy/EA serve as indicators of ecosystem health and, as such, their listed status indicates potential ecological problems. All of these species have many threats in common that include habitat loss and degradation and loss of nesting sites. If the status of these species is a reflection of an adversely affected and declining ecosystem, then remedial action must be aimed at the restoration of the coastal barrier ecosystem and not at just improving one species.

Towards this end, many protection efforts incorporated in the alternatives of this strategy/EA benefit sensitive beach species and thus serve to improve the coastal barrier ecosystem. For the life of this interim strategy/EA, the impacts associated with the management actions incorporated into the alternatives for species such as piping plovers would also be indicative of the potential impacts on coastal ecosystem health. Therefore, this impact topic was dismissed from further analysis in this EA.

## **Water Resources**

**Water quality or quantity.** Implementation of this strategy/EA would involve the implementation of species surveying and management. These activities would not occur in the water and would not create sedimentation, erosion, increased runoff, or other situations that would have a potential to impact water quality. Vehicle access along the seashore would allow for some driving in the intertidal zone under all of the proposed alternatives. Although some instances of vehicle emergence have been documented at the seashore, such occurrences are infrequent and do not result in measurable impacts on water resources. No impacts on water quality would occur from implementation of this strategy/EA.

**Streamflow characteristics.** Actions related to implementation of this strategy/EA would not affect streamflow characteristics. The proposed actions would not occur in areas that would impact streamflow.

**Marine or estuarine resources.** Potential impacts related to intertidal driving, impacts on ghost crabs, benthic habitats, and/or tidal wet flats are considered under the “Wildlife and Wildlife Habitats” section as well as the individual protected species analyses.

**Wetlands.** Wetlands include areas that are inundated or saturated by surface or groundwater for a sufficient length of time during the growing season to develop and support characteristic soils and vegetation. NPS classifies wetlands based on the U.S. Fish and Wildlife Service Classification of Wetlands and Deepwater Habitats of the United States, or the Cowardin classification system (Cowardin et al. 1979). Based on the Cowardin Classification System, there are marine, estuarine, and palustrine forested and emergent wetlands occurring at Cape Hatteras National Seashore within the study area. Wetlands in the marine system occur in association with the high-energy coastline. Marine wetlands are exposed to the waves and currents of the open ocean and their shoreline extent is determined primarily by the ebb and flow of the tides. Marine wetlands include the landward limit of tidal inundation, including the splash zones of breaking waves along the oceanside shoreline. The landward limit of tidal inundation is measured based on the “extreme high water of spring tides” (Cowardin et al. 1979). Marine wetlands occur along the oceanside shoreline of the Cape Hatteras National Seashore throughout the length of the project area.

Estuarine wetlands occur along the shoreline of the Pamlico Sound and include tidal salt/brackish water emergent wetlands and estuarine scrub shrub habitats. The estuarine wetland habitats are subject to regular or occasional flooding by tides. Estuarine scrub-shrub wetlands usually occur landward of the emergent habitats on the Pamlico Sound. Intertidal mudflats and sand flats are included in the estuarine system and are considered to be low-wave energy moist substrate habitats (MOSH). Piping plovers and other shorebirds use these low-energy intertidal habitats as foraging habitat.

Many of the protected bird species found within the seashore feed upon invertebrates. Some, like colonial waterbirds, feed over the open waters of the ocean, inlets and sounds, capturing small fish, shrimp and other invertebrates. However, the piping plover, Wilson’s plover, red knot, American oystercatcher, and the gull-billed tern (a colonial waterbird) feed on invertebrates in the intertidal zones that are subject to ORV use. The areas of concentrated foraging include the moist sands of sand flats, island spits, and the intertidal zone as well as the wrack line (drift line). The intertidal zone is defined as that part of the beach between the spring low water mark and the spring high water mark. The uppermost wrack line defines the upper limits of the intertidal zone. A wrack line is a line of stranded debris along a beach face marking the point of maximum run-up during a previous high tide.

“NPS activities that have the potential to have adverse impacts on wetlands are subject to the provisions of Executive Order 11990 as implemented through Director’s Order 77-1. Such activities may include: (1) acquiring, managing, and disposing of NPS lands and facilities; (2) construction and related development activities; (3) permitting activities as provided for under NPS regulatory authorities; and (4) activities, programs, or planning efforts affecting use of NPS lands” (Director’s Order 77-1).

Director’s Order 77-1 states that

The basic test for determining if a proposed action will have adverse impacts on wetlands is if the activity has the potential to degrade any of the natural and beneficial ecological, social/cultural, and other functions and values of wetlands. Activities may require compliance due to direct impacts (e.g., location of a structure or fill in a wetland) or due to indirect impacts (e.g., secondary or offsite impacts that reach into wetlands). Examples of activities with the potential to have adverse impacts on wetlands include drainage, water diversion, pumping, flooding, dredging, filling, nutrient enrichment, diking, impounding, placing of structures or other facilities, livestock grazing, and other activities that degrade natural wetland processes, functions, or values.

Examples of wetland degradation include modifying flow, circulation, hydroperiod, or other aspects of the hydrologic regime; degrading natural biotic communities and processes including native plant and animal communities, habitat quality, floral and faunal productivity, and natural biodiversity; and degrading social/cultural values such as aesthetics, education, historical values, archeological resources, recreation, and scientific research.

Potential impacts on wetlands associated with the action alternatives would be associated with the placement of posts for stringed symbolic fencing through wetland habitats. Based on observation, the posts are like stakes and would have no impacts on wetlands. It is likely that fencing would be placed around and not through wetlands. Potential bird and turtle nest bypass routes, identified under some of the alternatives considered in this strategy/EA, would avoid wetlands.

There are no exceptions in Director’s Order 77-1 that directly exempt species management plans or strategies, but Section 4.2.A.1.e. exempts: “Actions designed specifically for the purpose of restoring degraded (or completely lost) natural wetland, stream, riparian, or other aquatic habitats or ecological processes. For purposes of this exception, restoration refers to reestablishing environments in which natural ecological processes can, to the extent practicable, function at the site as they did prior to disturbance.”

Wetlands were identified as an issue of concern during internal scoping with the seashore; however, upon further analysis, it was determined that under any of the alternatives, impacts on wetland resources would not elevate above a short-term, minor adverse impact due to recreational and essential vehicle use in these areas requiring vehicular traffic within the intertidal zone. This may impact other species, such as when vehicles drive across the wrack line, which is discussed in detail in the “Wildlife and Wildlife Habitats” section. Therefore, it was determined that a Statement of Findings would not be necessary and wetlands was dismissed as a resource area of concern in this document.

### **Rare or Unusual Vegetation**

No known rare or unusual vegetation would be impacted by the implementation of this strategy/EA. Potential bird and/or turtle nest bypass routes, identified under some alternatives in this strategy/EA, would avoid any rare or unusual vegetation occurring at the seashore. Dune bluecurls (*Trichostema sp.*), identified as a significantly rare plant by the state of North Carolina Natural Heritage Program (2004), is documented at the seashore; however, it occurs in wet areas behind the dunes (R. Clark, NPS, pers. comm., D. Otto, LBG, December 21, 2005). These areas, as well as any sensitive or special status vegetation, would be avoided if a bypass route were determined necessary. Seabeach amaranth, a



federally listed plant species, is addressed under the “Federally Listed Special Status Wildlife and Plant Species” sections in this document.

### **Unique or Important Fish or Fish Habitat**

Unique or important fish or fish habitat would not be impacted by the implementation of this strategy/EA. This strategy/EA addresses terrestrial species and/or marine species, specifically sea turtles, when they are on land.

### **Air Quality**

Cape Hatteras National Seashore is located in an area classified by the U.S. Environmental Protection Agency as ‘in attainment’ for all six criteria pollutants. Implementation of this strategy/EA would not impact air quality.

### **Invasive Species (Plant or Animal)**

This strategy/EA would not introduce nonnative species. No substantive evidence exists indicating that non-native invasive vegetation is affecting protected species at the seashore, but this topic will be addressed further in the long-term ORV management plan/EIS. Management of non-native grey and red fox is addressed under the individual protected species sections for federal and state listed species and special status species. Therefore, this impact topic was dismissed from further analysis in this EA.

### **Prime Farmland**

Prime farmland is defined as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and is also available for these uses. Prime farmland is protected under the Farmland Protection Policy Act of 1981 to minimize the extent to which federal programs contribute to the unnecessary or irreversible conversion of farmland to nonagricultural uses. There are no prime and unique farmlands within the seashore.

### **Geohazards**

No known geohazards are present within the seashore that could impact the implementation of this strategy/EA. No indication exists that geohazards would be affected.

### **Unique Ecosystems, Biosphere Reserves, World Heritage Sites**

There are no known biosphere reserves, World Heritage sites, or unique ecosystems listed in the seashore; therefore, implementation of this strategy/EA would have no effect and this topic was dismissed from further analysis.

### **Cultural Resources**

The National Historic Preservation Act (NHPA, 16 U.S.C. 470 et seq.); NEPA; NPS 1916 Organic Act; NPS *Management Policies 2001* (NPS 2002); Director’s Order 12: *Conservation Planning, Environmental Impact Analysis and Decision-making*; and NPS-28: *Cultural Resources Management Guideline* require the consideration of impacts on any cultural resources that might be affected, and NHPA, in particular, on cultural resources either listed in, or eligible to be listed in, the National Register of Historic Places. Cultural resources include archeological resources, cultural landscapes, historic structures and districts, ethnographic resources, and museum objects, collections, and archives. Although no impacts are anticipated, copies of the strategy/EA have been distributed to the North Carolina State Historic Preservation Officer for review and comment related to compliance with Section 106 of the NHPA.

**Archeological Resources.** Minor dune excavation is proposed under the bypass route criteria identified under some alternatives in this strategy/EA. This excavation would avoid any known archeological resources, such as shipwrecks. If, during excavation, an archeological resource were identified, excavation work would immediately stop and seashore resource staff would determine the nature of the

find. Because any work would stop, potential impacts under all alternatives to archeological resources would not elevate above negligible adverse, and this topic was dismissed from further analysis.

**Historic Structures and Districts.** Management of protected species would not affect, alter, or cause harm to any historic structures or districts in or adjacent to the project area.

**Cultural Landscapes.** Cultural landscapes of the seashore would not be affected and potential viewshed impacts are considered under “Visitor Use and Experience.”

**Ethnographic Resources.** Ethnographic resources are defined by the NPS as any “site, structure, object, landscape, or natural resource feature assigned traditional, legendary, religious, subsistence, or other significance in the cultural system of a group traditionally associated with it” (*Cultural Resource Management Guideline*, Director’s Order 28: 181). There are no known ethnographic resources in either the project area or its general vicinity.

**Museum Collections.** Management of protected species would not affect, alter, or cause harm to any structures or buildings where museum collections are stored.

### **Paleontological Resources**

No known paleontological resources occur within the project vicinity.

### **Traffic and Transportation**

This strategy/EA would not affect transportation or roadways within or around the seashore. Although some alternatives identify routing some beach traffic to alternate routes such as NC-12, any additional vehicles added to the regional transportation network would be negligible. No additional need for parking would be created. ORV corridors and access are considered under “Visitor Use and Experience.”

### **Land Use, Including Occupancy, Income, Values, Ownership, and Type of Use**

Potential impacts from the implementation of this strategy/EA to land use, including occupancy, income, values, ownership, and type of use are considered under “Socioeconomic Resources.”

### **Environmental Justice**

On February 11, 1994, the President of the United States issued Executive Order 12898: *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations*. The executive order is designed to focus the attention of federal agencies on the human health and environmental conditions in minority communities and low-income communities. Environmental justice analyses are performed to identify the disproportionate placement of high and adverse environmental or health impacts from proposed federal actions on minority or low-income populations, and to identify alternatives that could mitigate these impacts.

Data from the U.S. Department of Commerce 2000 Census of Population and Housing (U.S. Census Bureau 2000) were used for this environmental justice analysis. Minority populations included in the census are identified as Black or African American; American Indian and Alaska Native; Asian; Native Hawaiian and other Pacific Islander; other race; of two or more races; and Hispanic or Latino. Poverty status, used in this EA to define low-income status, is reported as the number of persons with income below poverty level. The 2000 Census defines the poverty level as an annual income of \$8,794, or less, for an individual and an annual income of \$17,603, or less, for a family of four.

Dare and Hyde counties in North Carolina had a population of 35,793 in the year 2000, of whom 4,185 people (12%) were minorities and 3,271 (9%) were living below poverty level. People of Hispanic or Latino origin comprised 787 (2%) of the total population; 2,854 (8%) were Black or African American; 107 (0.3%) were American Indian or Alaskan Native; 143 (0.4%) were Asian; 0 were Native Hawaiian or other Pacific Islander; 317 (0.8%) were of some other race; and 347 (0.9%) were of two or more races. It

should be noted that persons of Hispanic or Latino origin may be of any race. None of the minority populations were above the state or national averages for those populations.

The two counties had a poverty rate lower than the national average with 9% of the regional population living below the poverty level. The poverty rate for North Carolina was 12%, and the United States was 12%. Based on the definitions provided in the executive order for minority or low-income populations, there are no such populations that would be disproportionately impacted by the implementation of this strategy/EA.

### **Energy Resources**

The implementation of this strategy/EA would not be expected to impact energy resources in the seashore because there are no such resources identified at the seashore.

### **Long-term Management**

This strategy/EA would be implemented while a long-term ORV management plan/EIS is developed; it would not impact long-term management at the seashore.

## RELATED LAWS, POLICIES, PLANS, AND ACTIONS

The following laws, policies, and plans by the NPS, the state, or other agencies with neighboring land or relevant management authority are described in this section to show the constraints this strategy/EA must operate under and the goals and policies that it must meet.

### GUIDING LAWS, REGULATIONS, AND POLICIES

#### NPS ORGANIC ACT OF 1916

In the NPS Organic Act of 1916 (Organic Act), Congress directed the U.S. Department of the Interior and the NPS to manage units of the national park system “to conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such a manner and by such a means as will leave them unimpaired for the enjoyment of future generations” (16 U.S.C. § 1). Congress reiterated this mandate in the Redwood National Park Expansion Act of 1978 by stating that NPS must conduct its actions in a manner that will ensure no “derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress” (16 U.S.C. § 1a-1).

The Organic Act and its amendments afford the NPS latitude when making resource decisions about visitor recreation and resource preservation. Despite this discretion, courts consistently interpret the Organic Act and its amendments to elevate resource conservation above visitor recreation. See *Michigan United Conservation Clubs v. Lujan*, 949 F.2d 202, 206 (6<sup>th</sup> Cir. 1991) (holding that in enacting the Organic Act “Congress placed specific emphasis on conservation.”); *National Rifle Ass’n of America v. Potter*, 628 F. Supp. 903, 909 (D.D.C. 1986) (stating that “in the Organic Act Congress speaks of but a single purpose, namely, conservation.”). By these acts Congress “empowered [the National Park Service] with the authority to determine what uses of park resources are proper and what proportion of the parks resources are available for each use” (*Bicycle Trails Council of Marin v. Babbitt*, 82 F.3d 1445, 1453 [9th Cir. 1996]).

Yet courts consistently interpret the Organic Act and its amendments to elevate resource conservation above visitor recreation. *Michigan United Conservation Clubs v. Lujan*, 949 F.2d 202, 206 (6th Cir. 1991) states, “Congress placed specific emphasis on conservation.” The court in *National Rifle Ass’n of America v. Potter*, says, “in the Organic Act Congress speaks of but a single purpose, namely, conservation.” The NPS *Management Policies 2001* also recognize that resource conservation takes precedence over visitor recreation. The policy dictates “when there is a conflict between conserving resources and values and providing for enjoyment of them, conservation is to be predominant” (NPS *Management Policies 2001*, 1.4.3).

Because conservation remains predominant, the NPS seeks to avoid or to minimize adverse impacts on park resources and values. Yet, the NPS has discretion to allow negative impacts when necessary (NPS *Management Policies 2001*, 1.4.3).

While some actions and activities cause impacts, the NPS cannot allow an adverse impact that constitutes resource impairment (NPS *Management Policies 2001*, 1.4.3). The Organic Act prohibits actions that permanently impair park resources unless a law directly and specifically allows for the action (16 U.S.C. 1a-1). An action constitutes an impairment when its impacts “harm the integrity of park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values” (NPS *Management Policies 2001*, 1.4.4). To determine impairment, the NPS must evaluate “the particular resources and values that would be affected; the severity, duration, and timing of the impact; the direct and indirect effects of the impact; and the cumulative effects of the impact in question and other impacts” (NPS *Management Policies 2001*, 1.4.4). This strategy/EA, therefore,

analyzes the effects of the management alternatives on park resources and values and determines if these effects would cause impairment.

NPS *Management Policies 2001* require an analysis of potential effects to determine whether or not actions would impair park resources (NPS 2002). The fundamental purpose of the national park system is to conserve park resources and values for the use and enjoyment of future generations. NPS managers have the discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. That discretion to allow certain impacts within the park is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the professional judgment of the responsible manager, would harm the integrity of park resources or values. An impact on any park resource or value may constitute an impairment, but an impact would be more likely to constitute an impairment to the extent that it has a major adverse effect on a resource or value whose conservation is

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park
- Key to the natural or cultural integrity of the park
- Identified as a goal in the park's general management plan or other relevant NPS planning documents

#### **CODE OF FEDERAL REGULATIONS, TITLE 36 (1992)**

Title 36, Chapter 1 provides the regulations “for the proper use, management, government, and protection of persons, property, and natural and cultural resources within areas under the jurisdiction of the National Park Service.” It states: “the National Park Service has the authority to manage the wildlife in the parks in fulfillment of the Organic Act without the consent of the state and by methods contrary to state law” (16 U.S.C. 3).

#### **Code of Federal Regulations, Title 36, Section 2.13 Fires**

Ground fires may be ignited and maintained seaward of the ocean dune below the high tide mark, but in no case less than 100 feet from a vegetated area. No ground fires are allowed in posted bird or turtle nest protection areas.

#### **Code of Federal Regulations, Title 36, Section 2.15 Pets**

Pets including dogs, cats, and other domesticated pets shall be physically confined to the occupant's house or outside wire cage/pen. Pets including cats shall be restrained on a maximum 6-foot leash or a leash attached to a run line when outside of the residence.

#### **Code of Federal Regulations, Title 36, Section 3.6 Prohibited Operations**

Section 3.6 prohibits the launching of a vessel “propelled by machinery” from any location within the park other than a designated launch site. Launching sites for non-commercial, recreational boats/vessels are the boat ramps located at Oregon Inlet Fishing Center and Ocracoke Marina parking area.

#### **Code of Federal Regulations, Title 36 Section 4.10 Travel on Park Roads and Designated Routes**

This section states: “operating a motor vehicle is prohibited except on park roads, in parking areas and on routes and areas designated for off-road motor vehicle use.” Additionally, it states, “Routes and areas designated for off-road motor vehicle use shall be promulgated as special regulations. The designation of routes and areas shall comply with Section 1.5 of this chapter and Executive Order 11644 (37 FR 2887).”

## **NPS MANAGEMENT POLICIES 2001**

Several sections from the *NPS Management Policies 2001* (NPS 2002) are relevant to protected species management at Cape Hatteras National Seashore, as described below.

*NPS Management Policies 2001* instructs park units to

Maintain as part of the natural ecosystems of parks all native plants and animals by minimizing human impacts on native plants, animals, populations, communities, and ecosystems, and the processes that sustain them (NPS 2002, 4.4.1)

The *NPS Management Policies 2001* directs park units to determine all management actions for the protection and perpetuation of federally, state, or locally listed species through the park management planning process, and to include consultation with lead federal and state agencies as appropriate. Sec. 4.4.2.3, Management of Threatened or Endangered Plants and Animals, specifically states:

The Service will survey for, protect, and strive to recover all species native to national park system units that are listed under the Endangered Species Act. The Service will fully meet its obligations under the NPS Organic Act and the Endangered Species Act to both proactively conserve listed species and prevent detrimental effects on these species. To meet these obligations, the Service will:

- Cooperate with both the U. S. Fish and Wildlife Service and the National Marine Fisheries Service to ensure that National Park Service actions comply with both the written requirements and the spirit of the Endangered Species Act. It is particularly important that this cooperation includes the full range of activities associated with the Endangered Species Act, including consultation, conferencing, informal discussions, and securing of all necessary scientific and/or recovery permits.
- Undertake active management programs to inventory, monitor, restore, and maintain listed species' habitats, control detrimental non-native species, control detrimental visitor access, and re-establish extirpated populations as necessary to maintain the species and the habitats upon which they depend.
- Manage designated critical habitat, essential habitat, and recovery areas to maintain and enhance their value for the recovery of threatened and endangered species.
- Cooperate with other agencies to ensure that the delineation of critical habitat, essential habitat, and/or recovery areas on park-managed lands provides needed conservation benefits to the total recovery efforts being conducted by all the participating agencies.
- Participate in the recovery planning process, including the provision of members on recovery teams and recovery implementation teams where appropriate.
- Cooperate with other agencies, states, and private entities to promote candidate conservation agreements aimed at precluding the need to list species.
- Conduct actions and allocate funding to address endangered, threatened, proposed, and candidate species.



The National Park Service will inventory, monitor, and manage state and locally listed species in a manner similar to its treatment of federally listed species, to the greatest extent possible. In addition, the Service will inventory other native species that are of special management concern to parks (such as rare, declining, sensitive, or unique species and their habitats) and will manage them to maintain their natural distribution and abundance.

Because the alternatives propose removal of certain non-native species from the park explicitly for the protection of special status species in the seashore, Section 4.4.2.1, NPS Actions That Remove Plants and Animals is applicable as well. Predatory threats to piping plovers include red fox, feral cats, dogs, gulls, raccoons, and crows. Predator species such as these are known to feed on bird eggs and chicks as well as turtle eggs and hatchlings. The NPS conducts limited predator removal using certified U.S. Department of Agriculture trappers.

Section 4.4.2.1 states:

Whenever the Service removes plants or animals, manages plant or animal populations to reduce their sizes, or allows others to remove plants or animals for an authorized purpose, the Service will seek to ensure that such removals will not cause unacceptable impacts to native resources, natural processes, or other park resources. Whenever the Service identifies a possible need for reducing the size of a park plant or animal population, the Service will use scientifically valid resource information obtained through consultation with technical experts, literature review, inventory, monitoring, or research to evaluate the identified need for population management, and to document it in the appropriate park management plan.

In planning and implementing plant and animal population management actions, the Service will follow established planning procedures, including provisions for public review and comment. The Service will consult, as appropriate, with other federal land-managing agencies, the U.S. Fish and Wildlife Service, the National Marine Fisheries Service, state agencies, tribal governments, and others. Such consultation will address (1) the management of selected animal populations, (2) research involving the taking of animal species of management interest to these agencies, and (3) cooperative studies and plans dealing with the public hunting and fishing of animal populations that occur across park boundaries.

In addition, the Service will manage such removals to prevent them from interfering broadly with:

- Natural habitats, natural abundances, and natural distributions of native species and natural processes;
- Rare, threatened, and endangered plant or animal species or their critical habitats;
- Scientific study, interpretation, environmental education, appreciation of wildlife, or other public benefits;
- Opportunities to restore depressed populations of native species; or
- Breeding or spawning grounds of native species.

Where the need to reduce animal populations may be due to persistent human/animal conflicts, the Service will determine whether or not it can eliminate or mitigate the conflicts by modifying or curtailing the conflicting visitor use or other human activities. Where visitor use or other human activities cannot be modified or curtailed, the Service may directly reduce the animal population by using several animal population management techniques, either separately or together. These techniques include relocation, public

hunting on lands outside the park, habitat management, predator restoration, reproductive intervention, and destruction of animals by NPS personnel or their authorized agents. Where animal populations are reduced, destroyed animals may be left in natural areas of the park to decompose. Live animals or carcasses may be removed from parks according to the provisions of applicable laws, agreements, and regulations, including the granting of preference to Native Americans.

**DIRECTOR'S ORDER #12: CONSERVATION PLANNING, ENVIRONMENTAL IMPACT ANALYSIS, DECISION MAKING AND HANDBOOK**

NPS Director's Order #12 and Handbook (NPS 2001) lay the groundwork for how the NPS complies with the NEPA. Director's Order #12 and Handbook set forth a planning process for incorporating scientific and technical information and establishing a solid administrative record for NPS projects.

Director's Order #12 requires that impacts on park resources be analyzed in terms of their context, duration, and intensity. It is crucial for the public and decision makers to understand the implications of those impacts in the short and long term, cumulatively, and within context, based on an understanding and interpretation by resource professionals and specialists. Director's Order #12 also requires that an analysis of impairment of park resources and values be made as part of the NEPA document.

**DIRECTOR'S ORDER #77: NATURAL RESOURCE PROTECTION AND NATURAL RESOURCES MANAGEMENT GUIDELINES, NPS-77, 1991**

Director's Order #77 addresses Natural Resource Protection, with specific guidance provided in the Natural Resource Management Reference Manual #77. This Reference Manual serves as the primary Level 3 guidance on natural resource management in units of the National Park System, replacing NPS-77, which was issued in 1991 under the previous NPS guideline series. The transition of NPS 77 into Reference Manual #77 is in progress. Some sections are still being revised, while others have undergone a field review with comments incorporated as applicable. Two sections which are complete include Director's Order includes Director's Order #77-1: Wetland Protection and Director's Order #77-2: Floodplain Management, and associated reference manuals, both of which would be considered during the development of an interim protected species management strategy at the seashore.

**CAPE HATTERAS NATIONAL SEASHORE PURPOSE AND SIGNIFICANCE**

National park system units are established by Congress to fulfill specified purposes. A park's purpose is the fundamental building block for its decisions to conserve resources while providing for the "enjoyment of future generations."

**PURPOSE**

Congress established Cape Hatteras National Seashore in 1937 as a national seashore. The seashore's enabling legislation states how it should be administered, protected, developed, and appropriately used:

...said area shall be, and is hereby, established, dedicated, and set apart as a national seashore for the benefit and enjoyment of the people.

Except for certain portions of the area, deemed to be especially adaptable for recreational uses, particularly swimming, boating, sailing, fishing, and other recreational activities of similar nature, which shall be developed for such uses as needed, the said areas shall be permanently reserved as a primitive wilderness and no development of the project or plan for the convenience of visitors shall be undertaken which would be incompatible with the preservation of the unique flora and fauna or the physiographic conditions now prevailing in this area (50 Stat. 669, August 17, 1937).

The 1937 enabling legislation for Cape Hatteras National Seashore also states that:

when title to all the lands, except those within the limits of established villages, within boundaries to be designated by the Secretary of Interior within the area of approximately one hundred square miles on the islands of Chicamacomico [Hatteras], Ocracoke, Bodie, Roanoke, and Collington, and the waters and the lands beneath the waters adjacent thereto shall have been vested in the United States, said areas shall be, and is hereby, established, dedicated, and set apart as a national seashore for the benefit and enjoyment of the people and shall be known as the Cape Hatteras National Seashore.

A 1940 amendment to the enabling legislation re-designated the area as the Cape Hatteras National Seashore Recreational Area so that hunting could be permitted in the boundaries of the seashore.

## **SIGNIFICANCE**

Park significance statements capture the essence of the park's importance to the nation's natural and cultural heritage. Understanding park significance helps managers make decisions that preserve the resources and values necessary to the park's purpose. The following significance statements recognize the important features of the seashore. As stated in the 1984 General Management Plan, the seashore has the following significance:

The landscape of the national seashore changes from broad sandy beaches to fore-island dunes, then to grassy flats broken by the NC-12 road corridor and by scattered smaller dunes and ponds, and finally to vaguely defined, back-island dunes and marshes that merge with the waters of the sound. In the higher elevations, such as in the Buxton area, maritime forests occur. These environments provide rich habitat for marine and terrestrial plants and animals....

...The essentially natural character and the ease of accessibility accounts for the popularity of the national seashore. Beach activities provide the main attraction for the nearly 2,000,000 annual visitors to the national seashore. These activities include swimming, surfing, surf fishing, sunbathing, hiking, and ORV driving. Other attractions include camping, bird watching, hunting, visiting the sound shore, interpretive programs, and visiting historic sites, including the well-known Cape Hatteras lighthouse.

The 1998 Strategic Plan adds to this with additional statements of significance:

This dynamic coastal barrier island system continually changes in response to natural forces of wind and wave. The islands are rich with maritime history of humankind's attempt to survive at the edge of the sea, and with accounts of dangerous storms, shipwrecks, and valiant rescue efforts.

Today, the seashore provides unparalleled opportunities for millions to enjoy recreational pursuits in a unique natural seashore setting and to learn of the nation's unique maritime heritage.

The 1997 Resource Management Plan states that many events of national significance have occurred on or near the Outer Banks, including (NPS 1997):

- Four centuries of shipwrecks resulting in enormous economic losses to this and other nations and affecting thousands of lives.
- The elimination of Blackbeard at Ocracoke. This event, which occurred in 1718, was doubtlessly a boon to all colonial shipping.
- The supply of the continental armies during the Revolution by the port of Ocracoke.

- The first modern amphibious operation, which resulted in the Union capture of Forts Hatteras and Clark and influenced the outcome of the Civil War.
- The development of commerce and transportation corridors in the late 1800s to support an industrial revolution and post Civil War expansion into world trade. Thus came the need to provide dependable navigational aids and rescue organizations to support this new shipping industry. Consequently, the U.S. Lighthouse Service, U.S. Life Saving Service, and U.S. Weather Bureau Service were established.
- Torpedo and mine attacks on Allied shipping during World Wars I and II, which seriously threatened the Allies' strategic supply line. The elimination of this threat sped Allied victory.

### **CAPE HATTERAS NATIONAL SEASHORE PLANNING DOCUMENTS**

The purpose, need, and objectives need to be, to a large degree, consistent with seashore planning documents. These documents include the 1984 General Management Plan, the 1997 Resource Management Plan, and various cultural and natural resource management documents.

#### **General Management Plan**

The 1984 General Management Plan for Cape Hatteras National Seashore states:

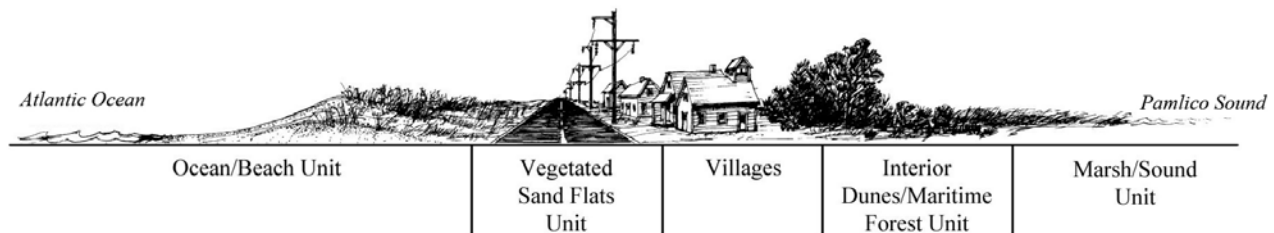
The overall planning objective for the national seashore is to preserve the cultural resources and the flora, fauna, and natural physiographic condition, while providing for appropriate recreational use and public access to the oceanside and soundside shores in a manner that will minimize visitor use conflict, enhance visitor safety, and preserve park resources.

Management proposals in the general management plan address direct and indirect threats to the seashore such as overwash and shoreline erosion, spread of exotic species of vegetation, use of ORVs, population growth, and increasing development. To address these issues, the 1984 General Management Plan establishes planning objectives for various units of the seashore (see "Figure 3: Cape Hatteras National Seashore Units"). For each seashore unit, the following objectives were considered in the development of this strategy/EA:

- Ocean/Beach Unit: Planning objectives are to allow natural processes to continue unhampered within the unit; to allow a wide range of unstructured beach and water oriented active recreational activities; to provide for adequate visitor access over the dunes while protecting them from overuse; and to concentrate visitor use at selected points, allowing for a more wilderness-type experience between points.
- Vegetated Sand Flats Unit: Planning objectives are to continue the use of this unit as a transportation corridor; to allow development necessary to support visitor activities and resource protection; to site and design all construction to minimize impact on natural systems and processes; to allow appropriate recreational activities; and to provide parking turnouts for beach access at appropriate nodes.
- Interior Dunes/Maritime Forest Unit: Planning objectives are to maintain the unit in an essentially natural state; to carefully site and design any construction to minimize impact on natural systems and processes; to provide interpretive trails and ORV access to the sound shore and beach where appropriate; and to allow unstructured, passive recreation that can best take advantage of the opportunities for solitude and self-discovery.

- **Marsh/Sound Unit:** Planning objectives are to maintain the unit in an essentially natural state; to provide access to the sound at widely separated nodes and to provide limited development in support of passive recreational activities at some of these nodes; and to provide interpretive trails where appropriate.

Specific to resource management, the primary objective of the seashore was to preserve the dynamic physiography and the characteristic ecological communities of the Outer Banks in all planning units discussed above, except those areas specifically designated for other users, for example, developed areas and Pea Island National Wildlife Refuge.



**FIGURE 3: CAPE HATTERAS NATIONAL SEASHORE UNITS (NPS 1984)**

### Strategic Plan

The Strategic Plan for Cape Hatteras National Seashore (NPS 2000a) includes goals for preserving seashore resources that are consistent with the goals and objectives of this strategy/EA. These goals include requiring NPS recovery actions for federally threatened and endangered species have an improved status and an additional 25% of the populations are stable populations.

### Resource Management Plan

The Cape Hatteras National Seashore Resource Management Plan identified nine goals to provide direction for the future management of the seashore. Four goals in this plan relate to the implementation of this strategy/EA include (NPS 1997):

- **Establishment of the national seashore for the benefit and enjoyment of the public.** The purpose of Cape Hatteras National Seashore is to preserve and protect for public use and enjoyment the cultural and natural resources that represent the significance of these barrier islands from Whalebone Junction to Ocracoke Inlet. It is important that the park identify visitor uses and impacts to establish appropriate management policies that will meet the needs of the park visitor while providing for the preservation and protection of the resources unimpaired for future generations.
- **Preservation and protection of natural resources.** The authorizing legislation for Cape Hatteras National Seashore (50 Stat. 669) requires that, “except for certain portions of the area, deemed to be especially adaptable for recreational uses, particularly swimming, boating, sailing, fishing, and other recreational activities of similar nature, which shall be developed for such uses as needed, the said area shall be permanently reserved as a primitive wilderness and no development of the project or plan for the convenience of visitors shall be undertaken which

would be incompatible with the preservation of the unique flora and fauna or the physiographic conditions now prevailing in this area ...” The NPS will continue to meet this requirement through compliance with all appropriate laws and other authorities. Rigorous enforcement, research, environmental monitoring, and applied resource management are currently underway and will continue in accordance with available funding and direction.

- **Provision for residents to be allowed to commercial fish subject to regulation of the Department of the Interior to protect recreational use.** The authorizing legislation provides that residents of adjoining villages shall have the right to earn a livelihood by fishing in the seashore. Commercial and recreational fishing are largely unimpeded on Cape Hatteras National Seashore with the exception of use restrictions in a limited number of environmentally sensitive areas. The areas are identified by signs and, in some locations, encircled with symbolic fencing.
- **Compliance with generic federal legislation and policy.** The combined list of federal legislation and policies for activities conducted at Cape Hatteras National Seashore is substantial. Compliance is attained through: (1) employee training, i.e., ensuring that employees are knowledgeable with regard to the legal and policy aspect of their work; and (2) review of documents and proposed activities by experienced supervisory personnel.

Resource management plans were previously required by the 1988 NPS Management Policies and their content prescribed by the NPS Resource Management Planning Guideline and Software Manual (1994). They continue to be required by the current NPS *Management Policies 2001*. However, changes to these plans are necessitated by changes to the NPS planning process contained in the current NPS *Management Policies 2001*. Under this revised planning process, there is a large gap between the broad requirements for the general management plan and the park strategic plan’s required 5-year suite of base-funded actions under “foreseeable” park budgets. This gap is being addressed through a new plan in place of the resource management plan, the resource stewardship plan. The resource stewardship plan provides a mechanism to develop and document well-defined and integrated natural and cultural resource condition objectives and comprehensive strategies for meeting them to guide park management decision-making. The seashore does not presently have funding to move forward with developing a resource stewardship plan.

## **OTHER SEASHORE PLANS, POLICIES, AND ACTIONS**

### **Superintendent’s Compendium: Closures, Permit Requirements, and Other Restrictions**

Under the provisions of 16 U.S.C., Section 3, Title 36, Code of Federal Regulations, Chapter 1, Parts 1-7, this compendium details designated closures, permit requirements, and other restrictions imposed under the discretionary authority of the superintendent (see page 25). The general provisions of this compendium allow for closures and public use limits for posted bird protection areas and turtle nests as well as implementing vehicle restrictions during May through September to beach areas in front of villages, on life guarded beaches, and on beaches adjacent to NPS campgrounds or other posted areas. The compendium also covers restrictions for resource protection, public use, and recreation; boating and water use activities; and vehicles and traffic safety. It prohibits vehicular access to beach or soundside areas other than those marked and maintained vehicle access routes and all off-road traffic on Pea Island National Wildlife Refuge.

### **Superintendent’s Order 10: Monitoring and Protection of Species of Concern**

The seashore’s goal is to prevent “take” and contribute toward recovery of protected species. Accomplishing this goal includes protective closures, monitoring and research, law enforcement, predator control, and other management actions. The seashore’s efforts will also contribute toward the Government Performance and Results Act (1993) goals for the NPS:



- 1a2A. 41% of federally listed species that occur or have occurred in parks are making progress towards recovery.
- 1a2B. 70% populations of native plant and animal Species of Management Concern are managed to self-sustaining levels, in cooperation with affected States and others, as defined in approved management documents.

When fully implemented, this strategy/EA will replace Superintendent's Order 10.

#### **Superintendent's Order 07: ORV Management**

Before Hurricane Isabel in September 2003, the existing berm line physically established ORV driving areas between the ocean and the constructed berm in most beach areas. Overwash during Hurricane Isabel and the resultant flattening of the constructed berm exposed areas of the seashore once protected by the berm from ORV use. To address this event and the changes it produced, this order adopts the 1978 Draft Interim ORV Management Plan except for the portions that refer to permitting. At the conclusion of the development of this strategy/EA, Superintendent's Order 07 will be reviewed and updated as determined necessary to reflect any protected species management actions that affect ORV management within the seashore.

#### **Commercial Services Plan**

Cape Hatteras National Seashore is developing a commercial services plan to identify necessary and/or appropriate commercial services in the seashore and the best way for NPS to manage them. The commercial services plan/EA will begin in the near future.

#### **Comprehensive Interpretation Plan**

Cape Hatteras National Seashore is currently developing a comprehensive interpretation plan targeted for completion in 2006. In 1995, the NPS issued a completely revised and updated interpretive planning chapter of NPS-6: *NPS Interpretation and Visitor Services Guideline*. This revised guideline outlined the components of the Comprehensive Interpretive Plan—a strategic planning document for interpretation and visitor services. If adopted in the next three years, this plan would be considered when developing interpretation related to natural resource management.

#### **Fire Management**

In the event of a wildland fire, fire management policies would help mitigate and minimize any adverse impacts that could occur to the park's protected species habitat. Fire management at the seashore includes the creation of fuel breaks and the use of prescribed fires for management purposes. The NPS has established wildland fire fuel breaks in Cape Hatteras National Seashore. These breaks are along sections of the park boundary bordering the villages of Salvo, Avon, Buxton, Frisco, and Hatteras.

#### **Predator Management**

Funding has been approved for the development of a predator management plan in 2006. The plan will address native, non-native, and exotic predators; specifically, those that prey on federal and state listed species. The U.S. Department of Agriculture, Wildlife Services in Raleigh, North Carolina will develop the plan and associated environmental assessment in cooperation with the National Park Service.

#### **Hurricane Recovery**

Located along the coast of North Carolina, Cape Hatteras National Seashore is subject to hurricane events of varying severity on an annual basis. During and after these events, seashore staff can be diverted from regular activities, such as natural resource management, to further hurricane recovery efforts throughout the seashore.

## **OTHER FEDERAL LAWS, EXECUTIVE ORDERS, REGULATIONS, AND POLICIES**

The NPS is also required to comply with the following laws, executive orders, regulations, and policies in developing this strategy/EA.

### **National Environmental Policy Act of 1969, as Amended (NEPA)**

The National Environmental Policy Act is implemented through regulations of the Council on Environmental Quality (40 CFR 1500-1508). The NPS has in turn adopted procedures to comply with the act and the CEQ regulations, as found in Director's Order #12: *Conservation Planning, Environmental Impact Analysis, and Decision Making* (2001), and its accompanying handbook.

### **National Parks Omnibus Management Act of 1998 (NPOMA)**

NPOMA (16 U.S.C. 5901 et seq.) underscores NEPA in that both are fundamental to NPS park management decisions. Both acts provide direction for articulating and connecting the ultimate resource management decision to the analysis of impacts, using appropriate technical and scientific information. Both acts also recognize that such data may not be readily available and provide options for resource impact analysis in this case.

NPOMA directs the NPS to obtain scientific and technical information for analysis. The NPS handbook for Director's Order 12 states that if "such information cannot be obtained due to excessive cost or technical impossibility, the proposed alternative for decision will be modified to eliminate the action causing the unknown or uncertain impact or other alternatives will be selected" (NPS *Management Policies 2001*, section 4.4).

### **Redwood National Park Act of 1978, as Amended**

All National Park System units are to be managed and protected as parks, whether established as a recreation area, historic site, or any other designation. This act states that the NPS must conduct its actions in a manner that will ensure no "derogation of the values and purposes for which these various areas have been established, except as may have been or shall be directly and specifically provided by Congress."

### **Endangered Species Act of 1973, as Amended**

This act requires all federal agencies to consult with the Secretary of the Interior and/or Commerce on all projects and proposals with the potential to impact federally endangered or threatened plants and animals. "Take," as it applies to the Endangered Species Act and as stated in the Act § 3.19, means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. "Harass" is defined by the U.S. Fish and Wildlife Service as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding feeding or sheltering. The U.S. Fish and Wildlife Service further defines "harm" to include significant habitat modification or degradation that results in death to listed species by significantly impairing behavioral patterns such as breeding, feed or sheltering (50 CFR § 17.3). The National Park Service is currently in consultation with the U.S. Fish and Wildlife Service and has submitted a Biological Assessment for their review and comment.

### **Migratory Bird Treaty Act of 1918**

While the Endangered Species Act, 16 U.S.C. §§ 1531, *et seq.*, protects only species listed as endangered or threatened, the Migratory Bird Treaty Act protects all migratory birds and their nests from direct harm. Section 703(a) provides that "it shall be unlawful at any time, by any means or in any manner, to...take...any migratory bird, any part, nest, or egg of any such bird" that is protected under the migratory bird treaties to which the United States is a party. The implementing regulations define a "take" as "to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect." In construing the Migratory Bird Treaty Act, the courts have held that the

Act's "taking" prohibition does not apply to habitat modification. *Citizens Interested in Bull Run, Inc. v. Edrington*, 781 F. Supp. 1502 (D. Ore. 1991); *Mahler v. United States Forest Service*, 927 F. Supp. 1559 (S.D. Ind. 1996); *Seattle Audubon Society v. Evans*, 952 F.2d 297 (9<sup>th</sup> Cir. 1991). While habitat destruction that indirectly causes the death of migratory birds or the destruction of their nests does not constitute a taking within the meaning of the MBTA, the Act does prohibit the direct, though unintended, taking of protected migratory birds and/or nests. *Seattle Audubon Society*, 952 F.2d at 303. With respect to Cape Hatteras National Seashore, ORV use that modifies migratory bird habitat is not prohibited by the Migratory Bird Treaty Act. However, the Migratory Bird Treaty Act prohibits ORV use that directly, yet unintentionally, kills migratory birds or destroys their nests and/or eggs.

Although the Migratory Bird Treaty Act is a criminal statute, courts have held that section 703 does impose restrictions on federal agencies. In *Humane Society of the United States v. Glickman*, 217 F.3d 882 (D.C. Cir. 2000), the D.C. Circuit noted that defendants were "quite mistaken in supposing that § 703 could not be enforced against federal agencies except through the criminal provision contained in § 707 (a)," and held that "the fact that the Act enforced a treaty between our country and Canada reinforces our conclusion that the broad language of § 703 applies to actions of the federal government" Id. at 886-887. Similarly, the D.C. district court in *Center for Biological Diversity v. Pirie*, 191 F. Supp. 2d 161 (D.D.C. 2002), reaffirmed the Migratory Bird Treaty Act application to federal agencies and held that "[t]he language of [section 703 making it unlawful to take or kill any migratory bird] is unequivocal" and "applies with equal force to federal agencies" Id. at 173.

These cases indicate that NPS is subject to the restrictions set forth in the Migratory Bird Treaty Act. Because NPS has a duty under the Act to protect migratory shorebirds from illegal takings, NPS may be liable for violations of the Migratory Bird Treaty Act if it permits ORV use that directly kills or takes migratory birds and/or migratory bird nests or eggs at the seashore, since such action would be "otherwise not in accordance with the law" under the Administrative Procedure Act. 5 U.S.C. § 706. *Pirie*, 191 F. Supp. 2d at 175 (holding that a federal agency may be sued under the Administrative Procedure Act for violations of the Migratory Bird Treaty Act).

### **Executive Order 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds**

The NPS has an obligation to protect migratory shorebirds at Cape Hatteras National Seashore pursuant to Executive Order 13186, which directs federal agencies "taking actions that have, or are likely to have, a measurable negative effect on migratory bird populations," to "develop and implement...a Memorandum of Understanding (MOU) with the U.S. Fish and Wildlife Service that shall promote the conservation of migratory bird populations." 66 Fed. Reg. 3853, 3854 (January 17, 2001). Pursuant to its MOU, each agency shall, among other things, avoid or minimize adverse impacts on migratory bird resources, which include both migratory birds and the habitats upon which they depend, Id. at 3853, "design migratory bird habitat and population conservation principles, measures, and practices, into agency plans and planning processes as practicable," Id. at 3854, and "ensure that environmental analyses of federal actions required by the NEPA or other established review processes evaluate the effects of actions and agency plans on migratory birds" Id. at 3855. This executive order thus imposes upon the NPS an affirmative obligation to protect migratory birds as well as their habitats. The NPS must take into account this obligation when engaging in agency action that may adversely impact migratory birds.

### **OTHER FEDERAL ACTIONS**

Other federal actions must be considered when assessing implementation of an interim protected species management strategy/EA. The following details federal projects.

**Oregon Inlet Dredging.** Periodically the U.S. Army Corps of Engineers undertakes maintenance dredging to the Oregon Inlet Channel between Bodie and Hatteras Islands to remove sand deposited in the channel since the previous dredging. The turbulent inlet requires regular dredging to maintain a safe navigation channel. The existing Bonner Bridge, which crosses Oregon Inlet, has two navigation spans

thus requiring the navigation channel to line up with these spans for safe navigation. Spoil from the dredging of Oregon Inlet is used for berm maintenance to protect NC-12, for replenishment of Pea Island National Wildlife Refuge beaches, and for berm maintenance adjacent to the villages in the seashore. During this dredging, a section of shoreline on the southern end of Bodie Island is temporarily closed (NPS 2003c). Channel maintenance may also remove accreted areas on the Bodie Island spit either because it has extended into the navigation channel or to provide a channel widener, which may decrease the frequency of dredging.

**Cape Lookout National Seashore Interim Protected Species Management Plan/EA and Long-term ORV Management Plan/EIS.** Located south of Ocracoke Inlet, Cape Lookout National Seashore is also developing an interim protected species management plan/EA. Cape Lookout National Seashore's interim protected species management plan /EA will guide management practices for the protection of special status species occurring at the seashore until a long-term ORV management plan/EIS and regulation is developed.

Cape Lookout National Seashore is also developing a long-term ORV management plan/EIS. This plan/EIS is being developed during the same time frame as the Cape Hatteras National Seashore long-term ORV management plan/EIS and will cover similar issues. The plans are required by Executive Orders 11644 and 11989.

## **STATE AND LOCAL LAWS, REGULATIONS, AND POLICIES**

### **North Carolina Wildlife Resources Commission Nongame and Endangered Wildlife Program**

The Nongame and Endangered Wildlife Program, established in North Carolina in 1983, aims to prevent species from becoming endangered through maintaining viable, self-sustaining populations of all native wildlife, with an emphasis on species in decline. The North Carolina Wildlife Resources Commission has a Comprehensive Wildlife Strategy to protect state-listed species. This strategy includes securing funding for state fish and wildlife agencies to take preventive actions that help keep rare species from becoming endangered and keep common species common (NCWRC nd). Some species listed through this program as state threatened, endangered, or of special concern were included in this strategy/EA. Endangered and threatened wildlife and wildlife species of special concern are protected under Article 25 of Chapter 113 of the North Carolina General Statutes. The species addressed include those that typically use areas also popular to visitors for foraging, nesting, and/or wintering habitat.

The North Carolina Wildlife Resources Commission is responsible for publishing the *Handbook for Sea Turtle Volunteers in North Carolina*. The handbook provides guidance to volunteers in conducting biologically sound management projects to benefit sea turtles and to help ensure compliance with laws pertaining to rare and endangered species at all levels of government. This guidance also provides species descriptions to aid volunteers. The management measures set forth in the handbook were taken into consideration during the development of this strategy/EA. An annual permit is issued by the North Carolina Wildlife Resources Commission under the authority of the U.S. Fish and Wildlife Service and USFWS Recovery Plans referenced (NPS 2006).

### **North Carolina Coastal Area Management Act**

The North Carolina Coastal Area Management Act establishes a cooperative program of coastal area management between local and state governments through comprehensive planning for the protection, preservation, orderly development, and management of the coastal area of North Carolina. The Coastal Area Management Act program was federally approved in 1978 and is the state's coastal zone management program under the Coastal Zone Management Act. Localities are responsible for planning while the state establishes areas of environmental concern. As a part of this program, the Coastal Resources Commission designated "Areas of Environmental Concern" in the 20 coastal counties and set rules for managing development in these areas. An Area of Environmental Concern is an area of natural

importance that may be easily destroyed by erosion or flooding or that may have environmental, social, economic, or aesthetic values that make it valuable to North Carolina.

Federal agencies proposing an activity within an Area of Environmental Concern must submit a “consistency determination” to the North Carolina Department of Coastal Management. For example, if the National Park Services proposes to install a shoreline protective device at Cape Hatteras National Seashore, then NPS is required to submit a consistency determination documenting how the proposed activity would be considered consistent with the State’s coastal program. The National Park Service has submitted a consistency determination for this project and is awaiting the state’s letter of concurrence or objection.

### **North Carolina Division of Marine Fisheries Regulations**

Commercial fishermen at Cape Hatteras National Seashore must be licensed by the North Carolina Division of Marine Fisheries, the agency responsible for the stewardship of the state’s marine and estuarine resources. The Standard Commercial Fishing License is an annual license for commercial fishermen who harvest and sell fish, shrimp, crab, or any marine species, except menhaden and shellfish.

### **STATE AND LOCAL ACTIONS**

**Continued Maintenance of NC-12 and Berm Maintenance.** NC-12 connects the communities on Hatteras Island to the mainland of North Carolina. Island residents depend on the roadway for off-island community services, such as hospitals, emergency response, and waste collection. NC-12 is also the primary evacuation route for all permanent and temporary residents on the island when severe weather approaches. Storms frequently cause the ocean to overwash NC-12 and deposit large quantities of sand over portions of the roadway. The storms sometimes damage NC-12, interrupting access and services to the island.

**Bonner Bridge Replacement.** The North Carolina Department of Transportation and the Federal Highway Administration released a supplemental draft environmental impact statement regarding the replacement of the Herbert C. Bonner Bridge across Oregon Inlet in September 2005 (OBTF 2005). The supplemental EIS considers two replacement bridge corridors. The bridge is proposed for completion in 2010.

**County Land Use Development Plan for Dare and Hyde County.** Potential disruption of existing habitat could occur through new development allowed by Dare and Hyde Counties. The latest version of the Dare County Land Use Plan was certified by the North Carolina Coastal Resources Commission in July 2003, and must be updated every five years. The Land Use Plan applies to the unincorporated portions of Dare County, while each of the municipalities in Dare County adopts their own plans for their respective planning jurisdictions. The county has adopted a Special Environmental District (SED-1) for the Buxton Woods maritime forest and also offers resource protection through their Special Environmental Districts (Dare County 2003). Hyde County’s Land Use Plan was written in 1986 and has since been update in 1992 and 1997. The county is currently drafting a new plan. The projected completion date has not been determined.

