

DEPARTMENT OF THE INTERIOR**Fish and Wildlife Service****50 CFR Part 17**

[FWS-R4-ES-2008-0041; 92210-1117-0000-B4]

RIN 1018-AU48

Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Wintering Population of the Piping Plover (*Charadrius melodus*) in North Carolina**AGENCY:** Fish and Wildlife Service, Interior.**ACTION:** Final rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), designate revised critical habitat for the wintering population of the piping plover (*Charadrius melodus*) in North Carolina under the Endangered Species Act of 1973, as amended (Act). In total, approximately 2,043 acres (ac) (827 hectares (ha)), in Dare and Hyde Counties, North Carolina, fall within the boundaries of the revised critical habitat designation.

DATES: This final rule becomes effective on November 20, 2008.

ADDRESSES: This final rule and final economic analysis are available on the Internet at <http://www.regulations.gov> and at http://www.fws.gov/raleigh/es_piplch.html. Supporting documentation we used in preparing this final rule is available for public inspection, by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Raleigh Ecological Services Field Office, 551-F Pylon Drive, Raleigh, NC 27606; telephone 919-856-4520; facsimile 919-856-4556.

FOR FURTHER INFORMATION CONTACT: Pete Benjamin, Field Supervisor, Raleigh Ecological Services Field Office (see **ADDRESSES** section). If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800-877-8339.

SUPPLEMENTARY INFORMATION:**Background**

It is our intent to discuss only those topics directly relevant to the development and designation of revised critical habitat in this final rule. For more information on the biology and ecology of the wintering population of the piping plover, refer to the final listing rule published in the **Federal Register** on December 11, 1985 (50 FR 50726). For information on piping plover wintering critical habitat, refer to

the final rule designating critical habitat for the wintering populations of the piping plover published in the **Federal Register** on July 10, 2001 (66 FR 36038), the proposed rule to designate revised critical habitat for the wintering population of the piping plover in North Carolina published in the **Federal Register** on June 12, 2006 (71 FR 33703), and the revised proposed rule published in the **Federal Register** on May 15, 2008 (73 FR 28084). Information on the associated draft economic analysis and draft environmental assessment for the proposed rule to designate revised critical habitat was published in the **Federal Register** on May 31, 2007 (72 FR 30326) and revised on May 15, 2008 (73 FR 28084).

Previous Federal Actions

We first designated critical habitat for the wintering population of the piping plover in 142 areas along the coasts of North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana, and Texas on July 10, 2001 (66 FR 36038). In February 2003, two North Carolina counties (Dare and Hyde) and a beach access group (Cape Hatteras Access Preservation Alliance) filed a lawsuit challenging our designation of four units of critical habitat on the Cape Hatteras National Seashore (CAHA), North Carolina (Units NC-1, NC-2, NC-4, and NC-5). In 2004, the U.S. District Court for the District of Columbia remanded to us the 2001 designation of the four units (*Cape Hatteras Access Preservation Alliance v. U.S. Department of the Interior*, 344 F. Supp 2d 108). In response to the court's order, on June 12, 2006, we published a proposed rule to designate critical habitat for the wintering population of the piping plover in North Carolina (71 FR 33703). That proposed rule described four coastal areas (units renamed NC-1, NC-2, NC-4, and NC-5), totaling approximately 1,827 acres (ac) (739 hectares (ha)) entirely within CAHA. On May 31, 2007, we announced in the **Federal Register** the availability of a draft economic analysis and environmental assessment for the June 12, 2006, proposed rule (72 FR 30326). On May 15, 2008, we announced a revision to the proposed critical habitat unit NC-1, to include the islands DR-005-05 and DR-005-06 (Dare County), owned by the State of North Carolina, and portions of Pea Island National Wildlife Refuge (PINWR; Dare County), and to proposed critical habitat unit NC-4, to include island DR-009-03/04 (Dare and Hyde Counties), owned by the State of North Carolina (73 FR 28084). The revised critical habitat units for the

proposed rule total approximately 2,043 ac (827 ha) in Dare and Hyde Counties.

On October 18, 2007, an action was filed against the National Park Service (NPS) in the United States District Court for the Eastern District of North Carolina, alleging that the management of off-road vehicles at CAHA, which includes the proposed critical habitat areas, was inadequate (*Defenders of Wildlife et al. v. National Park Service et al.*, No 2:07-CV-45-BO (E.D.N.C.)). On April 16, 2008, all parties filed with the court a proposed Consent Decree. The Consent Decree, approved April 30, 2008, continues management described in the NPS's Interim Protected Species Management Strategy (hereafter referred to as Interim Strategy), but also requires pre-nesting areas for piping plover as well as other shorebirds to be closed to vehicles and pedestrians at historic nesting areas at Bodie Island spit, Cape Point, Hatteras spit, and the north and south ends of Ocracoke Island. It also includes expanded buffers around breeding sites with nests and chicks that vary depending on the sensitivity or vulnerability of the particular species. These closures are a result of agency actions affecting the species and reports on species protected by the Migratory Bird Treaty Act (16 U.S.C. 703-712) and would occur regardless of our proposed critical habitat designation.

Summary of Comments and Recommendations

We requested written comments from the public on the proposed designation of critical habitat for the piping plover during three comment periods. The first comment period, associated with the publication of the proposed rule (71 FR 33703), opened on June 12, 2006, and closed on August 11, 2006. We also requested comments on the proposed critical habitat designation, associated draft economic analysis, and draft environmental assessment during a second comment period which opened May 31, 2007, and closed on July 30, 2007 (72 FR 30326). During this comment period, we held a public hearing on June 20, 2007. Finally, we requested comments on the revised proposed critical habitat designation, revised associated draft economic analysis, and revised draft environmental assessment during a third comment period which opened May 15, 2008, and closed June 16, 2008 (73 FR 28084). During these three comment periods we also contacted appropriate Federal, State, and local agencies; scientific organizations; and other interested parties and invited them to comment on the proposed rule

and/or draft economic analysis and draft environmental assessment.

During the first comment period, we received 84 comments directly addressing the proposed critical habitat designation. During the second comment period, we received 1,441 comments directly addressing the proposed critical habitat designation and the draft economic analysis and environmental assessment. Of the comments received during the second comment period, approximately 800 were submitted as two different form letters from individuals or organizations. During the June 20, 2007, public hearing, 36 individuals or organizations made comments on the designation of critical habitat for the wintering piping plover. During the third comment period, we received 489 comments directly addressing the proposed critical habitat designation. Comments received were grouped into nine general issues specifically relating to the proposed critical habitat designation for the wintering piping plover, and are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Review

In accordance with our policy published on July 1, 1994 (59 FR 34270), we solicited expert opinions from eight knowledgeable individuals with scientific expertise that included familiarity with the species, the geographic region in which the species occurs, and conservation biology principles. We received responses from four of the eight peer reviewers. The peer reviewers generally concurred with our methods and conclusions and provided additional information, clarifications, and suggestions to improve the final critical habitat rule. Peer reviewer comments are addressed in the following summary and incorporated into the final rule as appropriate.

Peer Reviewer Comments

(1) *Comment:* One peer reviewer stated that the data used in the 2006 proposed rule to evaluate the distribution and abundance of piping plover along the Outer Banks was satisfactory to determine key locations where wintering piping plover had been observed, but expressed concern that such data were generally not the results of thorough and complete censuses of all beach, island, and intertidal habitats. The reviewer also expressed concern for the absence of reference to studies, such as Nicholls and Baldassarre 1990 [Nicholls, J.L., and G.A. Baldassarre. 1990. Winter distribution of piping

plovers along the Atlantic and Gulf coasts of the United States. 102:400–412 and Nicholls, J.L., and G.A. Baldassarre. 1990. Habitat associations of piping plover wintering in the United States. *Wilson Bulletin* 102:581–590] and Dinsmore *et al.* 1998 [Dinsmore, S.J., J.A. Collazo, and J.R. Walters. 1998. Seasonal numbers and distribution of shorebirds on North Carolina's Outer Banks. *Wilson Bulletin* 110:171–181] that provide information on the distribution and abundance of piping plovers.

Our Response: We reviewed and cited the two studies by J.L. Nicholls and G.A. Baldassarre in our July 10, 2001, designation of critical habitat for the wintering population of the piping plover (66 FR 36038). Although we did not specifically cite the Dinsmore *et al.* 1998 study in the June 12, 2006, proposed rule or May 15, 2008, revised proposed rule, we did review and cite more recent data that incorporate the data of Dinsmore and others on the abundance and distribution of piping plovers. The data reviewed and referenced in this rule are cited as unpublished and were extracted from the North Carolina Wildlife Resources Commission's (NCWRC) statewide database on the occurrence of piping plovers. Because we were reevaluating only the issues addressed by the courts and only for the four units (Units NC–1, NC–2, NC–4, and NC–5) vacated and remanded back to us (*Cape Hatteras Access Preservation Alliance v. U.S. Department of the Interior*, 344 F. Supp 2d 108), we did not repeat the analysis on the abundance or distribution of piping plovers in these four areas to the extent that they were analyzed in the July 10, 2001, rule.

(2) *Comment:* Several peer reviewers noted that certain activities that may adversely affect piping plover habitat that were known to be occurring within the proposed critical habitat areas, such as artificial dune building and the destruction of wrack (marine vegetation) from recreational activities, were not specifically identified in the June 12, 2006, proposed rule.

Our Response: In the June 12, 2006, proposed rule (71 FR 33703) and May 15, 2008, revised proposed rule (73 FR 28084), we referenced the July 10, 2001, rule (66 FR 36038), which stated the activities that may destroy or adversely modify critical habitat by altering the primary constituent elements (PCEs) to an extent that the value of critical habitat for both the survival and recovery of the piping plover would be appreciably reduced. While we did not specifically address artificial dune building or the destruction of wrack as

examples that may destroy the piping plover's habitat, we did cite "Beach nourishment, cleaning, and stabilization (e.g., construction and maintenance of jetties and groins, planting of vegetation, and placement of dune fences)" and "Certain types and levels of recreational activities, such as vehicular activity that impact the substrate, resulting in reduced prey or disturbance to the species." We believe these actions are representative in their effects to the piping plover's habitat of artificial dune building and the destruction of wrack from recreational activities.

(3) *Comment:* Several peer reviewers noted that areas, such as portions of Pea Island National Wildlife Refuge (PINWR) and several sound-side and inlet channel islands, that provide the physical and biological features necessary for the survival and recovery of the piping plover were absent from the June 12, 2006, proposed rule. Several of the peer reviewers provided data or referenced studies that supported their assertion of the importance of these sites. They also stated that the management plans identified in support of our exclusion of these sites in the June 12, 2006, proposed rule (i.e., PINWR's Comprehensive Conservation Plan and the NCWRC's Wildlife Action Plan) were insufficient to protect habitats for the wintering population of the piping plover.

Our Response: In our May 15, 2008, revised proposed rule (73 FR 28084), we modified two of the four units (Unit NC–1, Oregon Inlet and NC–4, Hatteras Inlet) described in the June 12, 2006, rule (71 FR 33703). In the June 12, 2006, rule, we had determined that the islands DR–005–05 and DR–005–06 (Dare County) and DR–009–03/04 (Dare and Hyde Counties) owned by the State of North Carolina, and about 137 ac (96 ha) of PINWR (Dare County) did not meet the definition of critical habitat under section 3(5)(A) of the Act. However, we reconsidered our preliminary analysis of section 3(5)(A) of the Act and special management or protection needs of the PCEs on these lands and determined that these areas should be proposed as critical habitat. That determination was based on *Center for Biological Diversity v. Norton*, 240 F. Supp 2d 1090, 1099 (D. Ariz. 2003), which held that if a habitat is already under some sort of management for its conservation, that particular habitat required special management considerations or protection and, therefore, meets the definition of critical habitat. These additional areas of the revised units are located within the range of the population, were occupied at the time of

listing and are considered currently occupied, and contain habitat features essential for the conservation of the wintering population of piping plover, as described in the "Primary Constituent Elements" section of our June 12, 2006, rule.

(4) *Comment:* One peer reviewer stated that piping plovers regularly use a portion of the beach habitat just west of the proposed critical habitat area at Unit 4 (Hatteras Inlet) on Ocracoke Island, and that the area had many features that make it attractive for piping plovers. The reviewer also suggested that we include an additional ½ mile of beach habitat west of the proposed critical habitat area (Unit 4, Hatteras Inlet) on Ocracoke Island described in our June 12, 2006, proposed rule.

Our Response: We agree that the area in question may provide features that are attractive to piping plovers, including containing PCEs, and that the area is used by piping plovers. However, in the course of our analysis we did not find sufficient information to conclude that the half-mile of beach habitat suggested for inclusion as designated critical habitat meets the definition of critical habitat (i.e., occurrence data or observations indicated a consistent use by piping plovers) as described in our July 10, 2001, final rule (66 FR 36038) or our June 12, 2006, proposed rule (71 FR 33703). In fact, there are many areas of coastal habitats throughout the species' range that are not designated as critical habitat that are occupied by piping plovers under specific conditions and during various times of the year and that have features that are attractive to piping plovers. Not including these areas as critical habitat does not imply that the areas are not important for the recovery of the species, or that these areas do not provide important biological and physical conditions for wintering piping plovers. Rather, these areas have not been included because they do not meet the definition of critical habitat as defined in section 3 of the Act (see "Critical Habitat" section below).

(5) *Comment:* One peer reviewer questioned the accuracy over time of the use of GIS technology to define areas as critical habitat since the coastal areas proposed as critical habitat in our June 12, 2006, proposed rule were extremely dynamic and regularly erode and accrete. They also noted that the exclusion of areas that did not provide the PCEs was appropriate, but questioned the status of the areas proposed as critical habitat should these structures be removed and/or the PCEs form in their place. A similar comment

made by another peer reviewer questioned the exclusion of suitable unoccupied habitats, and suggested that we review and update critical habitat areas on a frequency consistent with the formation and destruction of the PCEs.

Our Response: As required by section 4(b) of the Act and stated in the "Methods" section of the June 12, 2006, proposed rule, we use the best scientific data available in determining areas that contain the physical and biological features that are essential to the conservation of the wintering population of the piping plover. As noted by several of the reviewers, designating specific locations of critical habitat for the wintering piping plovers is difficult because the coastal areas they use are constantly changing due to storm surges, flood events, and other natural geo-physical alterations of beaches and shoreline. Thus, to best insure that areas containing features considered essential to the piping plover were included in the proposed designation, we developed textual unit descriptions that would constitute the definitive determination if an area is within the critical habitat boundary. Our textual unit descriptions describe the geography of the area using reference points, including the areas from the landward boundaries to the mean lower low water (which encompasses intertidal areas that are essential foraging areas for piping plovers), and describe areas within the unit that are utilized by the piping plover and contain the PCEs (e.g., upland areas used for roosting and wind tidal flats used for foraging). Our textual descriptions also exclude features and structures (e.g., buildings, roads, etc.) that are not or do not contain PCEs. This method accounts for normal erosion and accretion processes occurring within the boundaries of the critical habitat unit description.

(6) *Comment:* One peer reviewer questioned a statement in the methodology of our June 12, 2006, proposed rule that areas may be excluded from consideration as critical habitat if "the area was small, highly fragmented, or isolated and may provide little or no long-term conservation value." The peer reviewer requested clarification of this statement.

Our Response: In the "Criteria Used To Identify Critical Habitat" section of our June 12, 2006, proposed rule, we listed the conditions under which critical habitat was identified and considered. The identification of areas that were "small, highly fragmented, or isolated and may provide little or no long-term conservation value" was one of several criteria used in the decision

process. Not including such areas as critical habitat does not imply that these areas are not important for the long-term conservation of the species, or that the areas do not provide important biological and physical conditions for wintering piping plovers. Rather, such areas are not included as critical habitat because they do not meet the definition of critical habitat as defined in section 3 of the Act (see "Critical Habitat" section below).

(7) *Comment:* One peer reviewer stated that the sentence "managing access might also improve the available habitats for the conservation of piping plovers" in our June 12, 2006, proposed rule was lacking and understated. The reviewer provided references to six additional studies that support the premise that managing access, and particularly off-road vehicle use, improves habitat quality for the piping plover.

Our Response: While we were not able to review all of the studies referenced by the reviewer because those documents were not readily available to us, we did find the information published in the referenced scientific peer-reviewed journals or papers (3 of the 6 referenced by the peer reviewer) to be supportive of our statement and that managing access can improve habitat quality for the piping plover. Our comment in the June 12, 2006, proposed rule was intended to indicate that managing access is one way to improve habitats for the conservation of piping plovers at the individual areas identified as proposed revised critical habitat.

Comments From States

Section 4(i) of the Act states, "the Secretary shall submit to the State agency a written justification for his failure to adopt regulations consistent with the agency's comments or petition." Comments received from the State regarding the proposal to designate critical habitat for the wintering piping plover are addressed below.

(8) *Comment:* The NCWRC expressed concern that certain areas, such as the north end of PINWR and several sound-side and inlet islands, that provide the physical and biological features necessary for the survival and recovery of the piping plover were absent from the June 12, 2006, proposed rule. The State agency provided data and referenced studies and reports that supported their assertion of the importance of these sites. They also stated that the management plans identified in support of our exclusion of these sites in the June 12, 2006, proposed rule (i.e., PINWR's

Comprehensive Conservation Plan and the NCWRC's Wildlife Action Plan) were insufficient to protect habitats for the wintering population of the piping plover.

Our Response: See our response to comment 3.

(9) *Comment:* The NCWRC asked for clarification of the ownership of "emergent sandbars" within the inlet channels as described in our June 12, 2006, proposed rule. Specifically, the agency asked for a description of the extent of the proposed critical habitat south and west of Oregon Inlet. The agency also recommended that all emergent sandbars be included as critical habitat.

Our Response: In our June 12, 2006, proposed rule and May 15, 2008, revised proposed rule, we identified specific islands as critical habitat and acknowledged their ownership. These islands were identified as DR-005-05 and DR-005-06 (Dare County) and DR-009-03/04 (Dare and Hyde Counties) owned by the State of North Carolina, and Green Island (Dare County), owned by NPS. Our textual unit descriptions describe the geography of the area using reference points, and describe areas within the unit that are utilized by the piping plover and contain the PCEs. Future islands and/or emergent sandbars created or formed within the boundary limits of critical habitat identified in this designation will be considered critical habitat if they contain the habitat features essential for the conservation of the wintering population of piping plover, regardless of their ownership. The designation of critical habitat does not affect, and is not affected by, the ownership of the property.

Public Comments

General Biological Comments

(10) *Comment:* Several commenters questioned differences in the status of the piping plover recognized under the Act and by other organizations, stating that the species was listed only as "Near Threatened" by Birdlife International. One commenter also appeared confused by its listing status under the Act and its ability to migrate between its breeding grounds and its wintering grounds, stating the piping plover is "not an endangered species, but a migratory species."

Our Response: The listed status of a species may vary among organizations based on their individual listing categorizations and/or criteria for listing a species and may depend on many factors important solely for the designating organization (e.g., local and/

or regional population size, geographical range and conditions, threats, and the probability of extinction/extirpation). The Act is the only Federal law that designates a species as endangered or threatened with a regulation to provide specific Federal protections for the species.

The "Near Threatened" status assigned to the piping plover by Birdlife International is based on the International Union for Conservation of Nature (IUCN) Red List Category and Criteria (ver. 3.1 (2001)), which defines Near Threatened species as "a taxon [that] has been evaluated against the criteria but does not qualify for Critically Endangered, Endangered or Vulnerable now, but is close to qualifying for or is likely to qualify for a threatened category in the near future." Birdlife International provides the following justification for the Near Threatened status for the piping plover: "This species has a small population which has declined significantly since the 1950s. However, there have been overall population increases since 1991 as a result of intensive conservation management, so the species is listed as Near Threatened. It is still dependent on intensive conservation efforts, so if these cease, or if trends reverse, then it would warrant immediate uplisting again."

Under the Act, species are listed as endangered or threatened. A species is added to the list when it is determined to be endangered or threatened because of any of the following factors: (1) The present or threatened destruction, modification, or curtailment of its habitat or range; (2) overutilization for commercial, recreational, scientific, or educational purposes; (3) disease or predation; (4) the inadequacy of existing regulatory mechanisms; or (5) the natural or manmade factors affecting its survival. Using these criteria, we published a final rule listing the piping plover as endangered in the Great Lakes watershed and threatened elsewhere within its range on December 11, 1985 (50 FR 50726). All piping plovers on migratory routes outside of the Great Lakes watershed or on their wintering grounds are considered threatened under Federal law. The ability of a species to migrate between breeding grounds and wintering grounds does not affect its listing status under the Act.

(11) *Comment:* Several commenters stated that CAHA does not provide much environmental value for the piping plover or is not essential to the existence of the species because CAHA is on the fringe of the species' wintering and breeding grounds. Many of these commenters argued that for these

reasons critical habitat should not be designated at CAHA.

Our Response: For sites that were occupied at the time a species is listed, as these sites were, the criterion for designating sites as critical habitat is not whether sites are essential to prevent extinction; it is whether the sites provide the features essential for the conservation of the species and may require special management consideration or protection. The areas we have designated as critical habitat are areas which contain the physical and biological features essential to the conservation of the species. These areas contain sufficient features to support piping plover life processes and, therefore, provide environmental value for the piping plover. The designation of critical habitat for the wintering population of the piping plover includes habitats important for both wintering and migrating piping plovers.

Although CAHA is on the fringe of the species' wintering and breeding grounds, it is regularly used by piping plovers. We note that few piping plovers use the areas during the winter months (i.e., most sites have fewer than 20 birds during these months); however, these sites are very important for migrating piping plovers. As many as 100 birds have been recorded at sites designated as critical habitat on a single day during the migratory period.

(12) *Comment:* One commenter stated that the decline in the piping plover can be attributed to extinction and that extinction was a natural selection process at work. However, the commenter provided no data or other documentation that suggested the decline in piping plovers was attributed to extinction.

Our Response: Extinction is a natural process. Normally, new species develop through a process known as speciation at about the same rate that other species become extinct. However, because of air and water pollution, over-hunting, extensive deforestation, the loss of wetlands, and other human-induced impacts, extinctions are now occurring at a rate that far exceeds the speciation rate. Congress, on behalf of the American people, passed the Act to prevent extinctions facing many species of fish, wildlife, and plants. The purpose of the Act is to conserve endangered and threatened species and the ecosystems on which they depend as key components of America's heritage.

We published a final rule listing the piping plover as endangered and threatened under the Act on December 11, 1985 (50 FR 50726). While hunting is thought to have been a major factor

contributing to the decline of the piping plover in the late 19th and 20th centuries, shooting of the piping plover and other migratory birds has been prohibited since 1918 under the provisions of the Migratory Bird Treaty Act. Habitat loss and degradation, disturbance by humans and pets, and increased predation were cited as important causes of the downward trend that started in the late 1940s (50 FR 50726) and continues to the present time in some portions of the species' range. Several factors continue to contribute to the decline of the piping plover along the Atlantic Coast. These factors include:

- Commercial, residential, and recreational development, which have decreased the amount of coastal habitat available for piping plovers to nest and feed.
- Human disturbance, which often curtails breeding success. Foot and vehicular traffic may crush nests or young. Excessive disturbance may cause the parents to desert the nest, exposing eggs or chicks to the summer sun and predators. Interruption of feeding may stress juvenile birds during critical periods in their development or wintering birds trying to obtain food resources for energy reserves to complete long migrations.
- Pets, especially dogs, which may harass the birds.
- Developments near beaches, which provide food that attracts increased numbers of predators such as raccoons, skunks, and foxes. Domestic and feral cats are also very efficient predators of plover eggs and chicks.
- Storm-tides, which may inundate nests.

(13) *Comment:* Many commenters stated that it is not necessary to designate critical habitat at CAHA because populations of the piping plover have been stable or increasing in CAHA and overall for the last 20 years. Many argued that no more than 15 breeding pairs have been recorded at CAHA and less than 1 percent of the total population of piping plovers can be found using CAHA at any time. Many wondered how habitat can be critical to a species' survival when less than 1 percent of the population will ever nest, breed, feed, or rest at CAHA.

Our Response: In general, the breeding population of the piping plover at CAHA has declined since the species was listed under the Act; however, the breeding population has increased in recent years from the lowest number of breeding pairs recorded in 2002 and 2003 (two pairs each year). It is more difficult to ascertain the exact number of piping

plovers using CAHA during the migration and wintering periods because regular and comprehensive surveys are not conducted during these times. However, CAHA is geographically important for piping plovers. Many of the piping plovers nesting north of CAHA along the Atlantic Coast will migrate through CAHA to the wintering grounds. Likewise, those same birds may use the habitats at CAHA during their return migration north to the breeding grounds. Piping plovers from the Great Lakes and possibly the Great Plains populations also use CAHA during these migrations (Pompei and Cuthbert 2004). One-day bird counts have recorded as many as 100 piping plovers at a single location within CAHA (NCWRC unpublished data).

In this designation, we identified areas along the coast that contain the PCEs and where occurrence data indicate a consistent use by wintering piping plovers. The essential features found on the designated areas may require special management consideration or protection. We believe that the designated areas are sufficient, and are needed to support piping plovers for recovery.

(14) *Comment:* One commenter asked about the need for further closures since piping plover numbers have more than doubled at CAHA since 2004. Another commenter stated that under the existing NPS management plan, piping plovers are witnessing an increase in number and moving toward the goal of recovery.

Our Response: We assume that the commenters are referring to increases in the number of breeding pairs of piping plovers at CAHA. Though this increase is real and represents positive and encouraging progress toward piping plover recovery, we note that this rule identifies and designates critical habitat for wintering piping plovers. As such, it is not intended to address issues related to the breeding season. We also note that closures are implemented by NPS under the Interim Strategy and Consent Decree; any additional closures are at the discretion of NPS.

(15) *Comment:* One commenter asked why the Service does not raise piping plovers in captivity like the bald eagle. Another commenter asked why the Service does not move the piping plover to PINWR since that area was established for wildlife.

Our Response: Piping plovers exhibit relatively high site fidelity, returning year after year to the same wintering sites on both the Atlantic and Gulf Coasts (e.g., Johnson and Baldassarre 1988; USFWS 1996; Zonick and Ryan

1993). Furthermore, the purpose of the Act is to provide a means to protect the ecosystems upon which endangered and threatened species depend. Captive propagation is used in certain rare cases in which populations of the species in question are at extremely low numbers such that the species is very close to extinction and where the species' life history lends itself to captive propagation. Neither is the case with the piping plover. Instead, our general strategy for endangered species conservation is to work with others to ensure that the ecosystems upon which listed species depend are healthy enough to support recovered populations. We note again that this critical habitat designation is intended to address habitat for wintering piping plovers. As such, the reproductive capacity of the piping plover populations was not a factor in evaluating which areas we would designate as critical habitat.

(16) *Comment:* Three commenters asked the Service to consider closing areas once nests have been identified rather than closing the entire seashore.

Our Response: As stated above, this critical habitat designation is for the wintering population of the piping plover. These designations will have no effect on actions on CAHA, PINWR, or the State-owned islands related to the management of breeding piping plovers. Decisions regarding the management of areas used by breeding piping plovers on CAHA are under the exclusive purview of the NPS.

(17) *Comment:* A few commenters suggested that we consider controlling predators such as foxes, feral cats, and weasels that destroy piping plover eggs and chicks.

Our Response: See our response to comment 16 above.

(18) *Comment:* One commenter stated that storms have a significant impact on piping plover habitat and questioned why we did not consider the effect of large storms in our designation. The commenter referenced a decline in the breeding piping plover population at CAHA during the late 1990s when a series of large storm events affected the North Carolina coastline and an increase in breeding piping plovers since 2005 when no major storm events were recorded.

Our Response: This critical habitat designation is for the wintering population of the piping plover. The effect of storms on breeding piping plover numbers at CAHA was not a point considered in the designation of critical habitat for the wintering population of piping plovers.

Site-Specific Biological Comments

(19) *Comment:* We received numerous comments requesting that CAHA be excluded from critical habitat on the basis that PINWR was excluded in our June 12, 2006, proposed rule.

Our Response: In our May 15, 2008 revised proposed rule, we revised Unit 1 to include PINWR as proposed critical habitat (See our response to comment 3). We have determined that all areas identified as critical habitat on CAHA meet the definition of critical habitat and have designated it as such in this final rule. All areas of the revised units are located within the range of the population, were occupied at the time of listing and are considered currently occupied, and contain habitat features essential for the conservation of the wintering population of piping plover that require special management, as described in the "Primary Constituent Elements" section of our June 12, 2006, rule and the "Special Management Considerations or Protections" section of this rule.

(20) *Comment:* Several commenters stated that we failed to provide evidence that the increase in park visitation and ORV use was the reason for a decline in the piping plover population at CAHA.

Our Response: In our proposed designation, we made a correlation between increasing park visitation and ORV use and piping plover habitat use and population numbers at CAHA. Our use of these data in this context is intended to indicate that the critical habitat areas contain the physical and biological features essential to the conservation of the species and that the features may require special management and protections.

(21) *Comment:* With regard to pedestrian disturbances to piping plover, one commenter wrote that piping plovers are recovering nicely at Nantucket, Massachusetts, where the beach is closed to vehicles only, but not to pedestrians. Another commenter asked that the areas remain open to pedestrians, while one additional commenter stated that the literature on pedestrian disturbance lacks any statistics on mortality.

Our Response: As stated above, this critical habitat designation is for the wintering population of the piping plover. It will have no effect on actions on CAHA, PINWR, or the State-owned islands related to the management of breeding piping plovers. Furthermore, the designation of critical habitat for wintering piping plovers does not establish closures, refuges, or other restrictions on use or access to the designated areas. Decisions regarding

pedestrian and vehicle access to portions of CAHA are under the purview of the NPS. We note that the Service and NPS previously conferred on the effects of the Interim Strategy on the proposed critical habitat units and determined that the Interim Strategy would not result in adverse modification of wintering piping plover critical habitat.

Section 7 Consultation

(22) *Comment:* Many commenters expressed concern or raised questions regarding the effects of critical habitat designation on the consultation process under section 7 of the Act, specifically the effect of designation on the replacement of the Herbert C. Bonner Bridge over Oregon Inlet and the repair of the North Carolina Highway 12 transportation corridor. Many also expressed concern for implementation of emergency services (e.g., ferry service, power/electrical systems services from Hatteras Island to Ocracoke Island) to the islands.

Our Response: With regard to the replacement of the Herbert C. Bonner Bridge over Oregon Inlet, we prepared a biological and conference opinion that concludes replacement of the bridge and the transportation corridor is not likely to destroy or adversely modify proposed critical habitat for the wintering population of the piping plover. We also note that critical habitat for wintering piping plovers has been designated and in place at 119 units along the Atlantic and Gulf coasts since 2001 (n.b., 142 units designated before courts vacated 4 units in North Carolina in 2004, and 19 units in Texas in 2006). During that time, to the best of our knowledge, no Federal projects have been delayed or substantially altered by the presence of designated critical habitat.

With regard to emergency situations, the Service has provisions under the Act that recognize that an emergency (natural disaster or other calamity) may require expedited coordination and/or consultation. Where emergency actions are required that may affect listed species and/or critical habitats, consultations are handled with as much understanding of the action agency's critical mission as possible while ensuring that anticipated actions will not violate the Act. Emergency consultation procedures allow action agencies to incorporate endangered species concerns into their actions during the response to an emergency. For example, the initial stages of emergency consultations usually are done by telephone or facsimile, followed by written correspondence from the Service. During this initial

contact, or soon thereafter, the Service offers recommendations to minimize the effects of the emergency response action on listed species or their critical habitat. This written record provides the requesting agency with a formal document reminding them of the commitments made during the initial step in emergency consultation. As soon as practicable after the emergency is under control, the action agency initiates formal consultation with the Service if listed species or critical habitat have been adversely affected. This process is designed to provide protective measures for listed species and their habitats and will not prevent necessary action when human life is at stake.

(23) *Comment:* Many commenters referenced the inclusion of emergent sandbars in the designation of critical habitat and are concerned that they have the potential to stop or delay dredging to maintain critical channels in Oregon, Hatteras, and Ocracoke Inlets. They stated that closed channels would affect commercial fishing vessels, charter fishing vessels, and recreational use at these three inlets, as well as ferry traffic to Ocracoke Island. One commenter specifically asked the Service to consider the impact of new inlets, erosion, and sand shifting relative to their impacts on commerce and safety and suggested that any new rules should not significantly delay the maintenance of current inlets and channels used by commercial fishermen or the ferry system.

Our Response: The U.S. Army Corps of Engineers (Corps) is the Federal agency responsible for maintaining navigational channels, and as such, they are required to ensure that their actions do not jeopardize the continued existence of listed species or adversely modify critical habitat for listed species. Should channels be obstructed by sediment or emergent sandbars, the Corps may consult with the Service in order to determine how best to provide access to these areas while minimizing effects to piping plovers or their critical habitat. Again, we note that critical habitat for wintering piping plovers has been designated and in place for 119 units since 2001, and that during that time, to the best of our knowledge, no Federal projects have been delayed or substantially altered by the presence of designated critical habitat.

Public Involvement/Coordination

(24) *Comment:* Several commenters stated that the June 20, 2007, public hearing was poorly advertised and unknown to a majority of the affected public entities and local businesses.

One organization requested a second public hearing on Ocracoke Island.

Our Response: The June 20, 2007, public hearing was announced in a press release and in the notice of availability published in the **Federal Register** on May 31, 2007 (72 FR 30326). The press release was submitted to 14 newspapers in North Carolina and Virginia, Federal and State representatives, Dare and Hyde County commissioners, other Federal and State agencies, conservation organizations and other non-governmental organizations, special interest groups, and other interested parties. The Service also purchased advertisements 10 days prior to the public hearing in the following newspapers: *Outer Banks Sentinel*, *Coastland Times*, and *News and Observer*. In addition, the announcement for the public hearing was provided on the Service's Raleigh Ecological Services Field Office Web site beginning May 31, 2007.

Section 4(b)(5) of the Endangered Species Act states, "[w]ith respect to any regulation proposed by the Secretary to implement a determination, designation, or revision referred to in subsection (a)(1) or (3) [proposed or final rule to list a species as endangered or threatened, or proposed or final rule to designate any habitat of such species to be critical habitat], the Secretary shall * * * promptly hold one public hearing on the proposed regulation if any person files a request for such a hearing within 45 days after the date of publication of general notice." We have met this requirement.

(25) *Comment:* Over the course of the rulemaking process and the three public comment periods, a few commenters wrote to request that each public comment period be extended for an additional 6 months.

Our Response: We requested written comments from the public on the proposed designation of critical habitat for the wintering population of the piping plover during three comment periods totaling 150 days. The first comment period, associated with the publication of the proposed rule (71 FR 33703), opened on June 12, 2006, and closed on August 11, 2006. We also requested comments on the proposed critical habitat designation, associated draft economic analysis, and draft environmental assessment during a comment period that opened May 31, 2007, and closed on July 30, 2007 (72 FR 30326). During this comment period, we also held a public hearing on June 20, 2007. Finally, we requested comments on the revised proposed critical habitat designation and associated revised draft economic

analysis and environmental assessment during a comment period that opened May 15, 2008, and closed June 16, 2008 (73 FR 28084). We have provided ample time for the public to comment on the proposed rules and associated draft economic analysis and draft environmental assessment.

(26) *Comment:* A few commenters wrote with regard to the public review process. Specifically, during the 2006 public comment period, a commenter asked for information about submitting comments on the proposed designation electronically. Another commenter requested the Service provide access to reports and other information about the critical habitat designation in both electronic (online) and printed forms. One other commenter requested copies of all public comments received.

Our Response: During the first two comment periods (2006 and 2007), the Service accepted comments in either hard copy or electronic format. During the 2008 comment period, commenters were allowed to provide comments electronically through the Web site <http://www.regulations.gov>. Information regarding the submission of public comments was provided in the **Federal Register** at the opening of each comment period. All documents associated with the designation of critical habitat were posted on the Service's Raleigh Ecological Services Field Office Web site. A complete copy of the supporting record, including reports used to make our decisions, public comments received, and other information relevant to this critical habitat designation, are on file in the Raleigh Ecological Services Field Office and available for public review by appointment.

Best Information/Science

(27) *Comment:* Several commenters were concerned that the Service was designating critical habitat without using the current and best available science, stating that insufficient justification was provided in the documents, that no current scientific information was provided which proves that the proposed areas are essential to the recovery of the piping plover, and that we ignored some current studies which suggest that the piping plover has made significant strides towards recovery. One commenter specifically wrote that recent studies were ill conceived and did not take long range numbers into respect. Another commenter wrote that critical habitat designation is not needed and that the Service failed to justify the designation with contemporary peer-reviewed science.

Our Response: The commenters did not provide any additional scientific information on which they based their comments. As required by the Act, we used the best available scientific information on which to base our decision. In this way, we identified areas that contain the PCEs, where occurrence data indicate a consistent use by piping plovers, and where the essential features of the areas may require special management consideration or protection to ensure their contribution to the species' recovery. Thus, we believe that the designated areas are sufficient, are needed to support the conservation and recovery of the piping plover, are based on the best available science, and meet the definition of occupied critical habitat. As a result, we have not designated areas which were not occupied at the time of listing and thus would have required a determination that designation of those areas is essential to the conservation of the species.

(28) *Comment:* Many commenters urged the implementation of a balanced process for critical habitat designation that takes recreational anglers, ORV users, and local sport fishing and related businesses into consideration. They further stated that it is important that the process of piping plover critical habitat designation rely on a balanced mix of biological and economic information and provide solid evidence of a conservation benefit.

Our Response: Section 4(b)(2) of the Act states that critical habitat shall be designated and revised on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact, of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of including that area in critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the Secretary is afforded broad discretion as to which factors and how much weight will be given to any factor.

With regard to economic impacts, the primary purpose of the economic analysis is to estimate the potential economic impacts associated with the designation of critical habitat for the wintering population of the piping plover. This information is intended to assist the Secretary in making decisions about whether the benefits of excluding

particular areas from the designation outweigh the benefits of including those areas in the designation and assessing whether the effects of the designation might unduly burden a particular group or economic sector. Under section 4(b)(2) of the Act, we must consider relevant impacts in addition to economic ones. This process ensures a balanced approach to the designation of critical habitat. In other words, in designating critical habitat we were required to consider economic and other relevant impacts, and we did so (see "Application of Section 4(b)(2)" below). As a result, we did not exclude any areas under section 4(b)(2) of the Act in this final rule.

Definition of Critical Habitat

(29) *Comment:* Several commenters questioned why critical habitat is designated in otherwise protected areas, such as State lands, national seashores, or refuges. We also received many comments questioning the need for the critical habitat designation given the protections to the piping plover provided by the NPS's Interim Strategy and the on-going Off-Road (ORV) Vehicle Management Plan rulemaking process. Conversely, several commenters expressed concern over the adequacy of such plans in protecting the piping plover and its habitats.

Our Response: Although lands managed by the State, the NPS, and the Service have management plans in place to protect the piping plover and its habitat, we have determined, as stated several times within this rule, that the essential features require special management and, therefore, meet the definition of critical habitat.

(30) *Comment:* Several commenters stated that the piping plover already receives substantial protections, such as under sections 7 and 9 of the Act, and questioned why additional protection was necessary.

Our Response: Section 4(a)(3) of the Act requires that critical habitat be designated for species listed as threatened or endangered unless such designation would not be prudent. In our proposed rule (71 FR 33703) we published our determination that designating critical habitat would be prudent in that it would not increase the degree of threat from human activity and that it would benefit the species. Therefore, we are proceeding with the designation.

Effects of Designation

(31) *Comment:* Most of the comments that we received in opposition to the designation of critical habitat were based on the desire for the beaches to

remain open to ORV and pedestrian use for the purposes of fishing, collecting seashells, sunbathing, and other forms of beach-related recreation. Some commenters said that CAHA was designated as a "Recreational Area" and, therefore, should remain open for recreational use. One commenter believes that if the beaches are closed to ORVs, then tourists will park in front of driveways, use private boardwalks, trespass on private property, and walk across dunes, destroying them. Another commenter suggested that the Service or the NPS continue fencing individual nests as they have done in the past.

Our Response: The closing of the beaches to ORV and pedestrian use is part of the NPS's Interim Strategy and the April 30, 2008, Consent Decree. The breeding and wintering closures implemented under the Interim Strategy and Consent Decree are based on the location of nesting sites and location of chicks (breeding closures) and foraging areas (wintering closures). Critical habitat is based on areas which the Service determined to contain physical or biological habitat features needed for the conservation of the piping plover. Closures associated with implementation of the Interim Strategy or the Consent Decree would occur regardless of our critical habitat designation. The designation of critical habitat for wintering piping plovers does not establish closures, refuges, or other restrictions on use or access to the designated areas.

Decisions regarding pedestrian and vehicle access to portions of CAHA and other management strategies are under the purview of the NPS. We note that the Service and NPS previously conferred on the effects of the Interim Strategy on the proposed critical habitat units and determined that the Interim Strategy would not result in adverse modification of wintering piping plover critical habitat.

(32) *Comment:* Many comments we received recommended the Service find a balance between piping plover protection and recreational access. One commenter wrote that the use of ORV corridors has worked in the past and continues to be a viable option for coexistence between man and nature.

Our Response: We agree that piping plovers and people can co-exist in wintering areas. The NPS is responsible for the management of endangered and threatened wildlife on CAHA, and makes decisions regarding the protection of the wildlife and their habitats necessary for their survival and recovery. The Service has provided and will continue to provide technical assistance to the NPS in such matters of

endangered and threatened wildlife and habitat management. However, as explained in this final rule, the Act requires that we designate critical habitat for listed species unless we find that designating critical habitat is not prudent or determinable. In addition, the fact that people use areas used by plovers does not provide sufficient justification for not designating critical habitat.

Economics

(33) *Comment:* Many of the public comments raised issues related to management measures that are not directly related to the current critical habitat designation (e.g., NPS Interim Strategy and the Consent Decree). For example, one commenter noted that the Consent Decree has caused layoffs and trip cancellations which have resulted in economic impacts to local residents that are not considered in the draft economic analysis (DEA).

Our Response: The Service recognizes that a high level of public concern exists regarding future ORV management at CAHA, including recent changes to that management under the Consent Decree. However, it is the role of this economic analysis to distinguish between economic impacts resulting from ongoing events and those that may occur due to critical habitat (see section 1.4 of the final economic analysis (FEA)). That is, this analysis focuses on the incremental impact of the designation-impacts that would not occur absent critical habitat. As stated in section 2.3.3 of the FEA, which discusses the low-end scenario, the NPS does not anticipate changing its management of CAHA due to the designation. Additional discussion of the Consent Decree can be found in section 2.2.1.2 of the FEA.

(34) *Comment:* One commenter stated that the potential benefits of the critical habitat designation should be quantified.

Our Response: Section 1.5 of the FEA discusses possible benefits of the designation. Based on the best information available, it is not possible to estimate a potential increase in other types of visitation that might result from a decrease in ORV traffic (i.e., there are no available data models to predict how non-ORV visitation will change in response to changes in ORV visitation). The NPS has not observed significant trends in visitation related to past management closures, and the NPS does not anticipate substantially increased visitation to the park resulting from management closures (see section 2.3.1.2 of the FEA).

(35) *Comment:* Several commenters believed that the 20-year timeframe used in the draft economic analysis (DEA) is too long, stating that it is impossible to estimate impacts out over 20 years.

Our Response: To produce credible results, the FEA must consider impacts that are reasonably foreseeable. Based on available data, the Service believes that the impacts presented are reasonably foreseeable (see section 1.6 of the FEA).

(36) *Comment:* One commenter stated that the DEA does not accurately apply a baseline approach and instead includes all impacts of conservation activities since the listing of the species in 1985.

Our Response: The commenter appears to refer to section 1.6, which states that the DEA "estimates economic impacts to activities from 1985 (year of the species' final listing) to 2026." However, the results presented in section 2 of the FEA do not include any past impacts resulting from wintering piping plover conservation activities, stating "this analysis does not attribute the impacts of past closures to critical habitat." Section 3 does report some past administrative costs based on the assumption that, due to the previous critical habitat, NPS either was required, or believed it would be required, to conduct a consultation under section 7 of the Act on its management activities.

(37) *Comment:* Several commenters stated that the DEA failed to conduct a survey of local businesses.

Our Response: A survey regarding the specific potential effects of management closures on individual businesses is beyond the scope of this analysis. The DEA used best available data on such factors as the size and annual sales of businesses collected by Dun & Bradstreet.

(38) *Comment:* Several commenters noted the high level of uncertainty inherent in both estimated impacts and forecasts of future management. Several commenters stated that the designation of critical habitat will not necessarily lead to a total closure of designated areas, and that closure of certain sections of the beach is likely to simply shift ORV activity to other open areas. Other commenters stated that management of ORV use is likely to change in the future due to changes in NPS staff.

Our Response: The FEA acknowledges uncertainty by providing a range of impacts based on two scenarios (see section 2.3.1). The low-end scenario assumes that no trips will be lost either because NPS will not close additional areas of the beach to ORV

use, or because ORV users will move their recreational activities to other areas of the park without diminishing the value they hold for trips to the park. The high-end scenario assumes that all ORV trips to the designated areas are lost, and that the value of these lost trips is a cost of the rulemaking.

(39) *Comment:* One commenter stated that ORV driving at CAHA is currently "illegal," and thus no impacts associated with ORV recreational activity should be forecast.

Our Response: Whether or not ORV activity is legal, there is no question that it currently takes place at CAHA. Moreover, the court in Cape Hatteras Access Preservation Alliance ordered the Service to analyze the possible economic impacts of designation on ORV recreation. Accordingly, the DEA and FEA both address these impacts.

(40) *Comment:* Several commenters noted that the total park acreage is not accessible to ORV use. Rather only 10 percent of the park is open to ORV use due to various seasonal, safety, and species-related closures.

Our Response: Based on discussions with NPS, the total area available for ORV use appears to be highly variable and dependent on a number of factors, including weather events and species movement (see section 2.3.1.2 of the FEA). Given this high level of variability, it is difficult to estimate the acreage available for ORV use at any given time. Therefore, in the absence of fixed closures, the FEA assumes that any acre of the park may be available for ORV use at any given time.

(41) *Comment:* Many of the commenters stated that the August 2003 Vogelsong visitor use study, conducted for CAHA and cited in the DEA, does not provide a scientific basis for estimating the level of ORV use in CAHA. The commenters are concerned that critical habitat designation will reduce public access to CAHA beaches, affecting ORV use and overall beach visitation, and that the Vogelsong study understates such visitation. Several commenters stated that they believe the Vogelsong visitor use study used in section 2 of the DEA was inaccurate and provided low estimates of ORV visitors to the park. The commenters suggested an estimate of ORV-related trips based on a one-time count of 3,000 ORV users over the Memorial Day weekend.

Our Response: The weaknesses of the Vogelsong visitor use study are discussed in section 2.3.1 of the FEA. The Vogelsong study also recently underwent peer review. This review found that there was "insufficient detail provided on the sampling method and analysis to * * * reliably determine the

extent to which CAHA is used by ORVs." However, one peer reviewer stated that, "if the Vogelsong data are to be used to estimate annual ORV use and the economic impact of ORV use at CAHA * * * a matrix of estimates of total park visitation and ORV use should be presented to reflect the imprecise nature of these estimates," which the FEA does in section 2.3.2. A 2005 study by Neal was also peer-reviewed, and found to suffer from a number of other flaws (for example, "quality control in the survey sample was lacking, and coverage of relevant populations fell short of that needed to understand the effects of limiting ORV traffic"), which implies it was deemed equally problematic. Despite the issues raised in the peer review, the Service believes that the results contained in the Vogelsong study represent the best available information to support an understanding of the potential economic impacts of this proposed designation, and that the manner in which the information from this study are applied (i.e., use of ranges) represents a reasonable application of the study consistent with the concerns raised in the peer review process.

(42) *Comment:* Several commenters noted that the DEA did not include the 29 percent of visitors to CAHA who said they would not return to the park if the beaches were closed to ORV use.

Our Response: This percentage was inadvertently left out of the DEA. The FEA estimates high-end impacts based on an assumption that as many as 61.4 percent of ORV trips to designated areas may be lost (see section 2.3.1.2 of the DEA).

(43) *Comment:* One commenter suggested that the DEA does not explain the assumption that 32.4 percent of all trips to designated areas would be lost. In addition, the commenter stated that this percentage appears to overestimate lost visitation given that it was based on users' reactions to a total closure of all beaches.

Our Response: The Vogelsong study reports that 32.4 percent of all visitors would visit less often if ORVs were not allowed on the beach and that 29.0 percent would not visit at all. In the absence of a site-specific model to predict how users will react to changes in ORV management, this analysis assumes that these expressed opinions reflect how users would react to potential closures. Because this percentage may represent an overestimate given that areas of the park will remain open to ORV use, the FEA presents a possible range of impacts.

(44) *Comment:* One commenter noted that Vogelsong states that ORV visitors

represent 7.3 to 11 percent of all visitors to CAHA while the DEA uses an estimate of 2.7 to 4.0 percent.

Our Response: As discussed in section 2.3 of the DEA, the DEA develops its estimated impacts based on the number of actual ORVs and not based on the number of visitors participating in ORV recreation. The 7.3 to 11.0 percent cited in the comment estimates the number of ORV visitors (i.e., the number of ORVs multiplied by an average number of 2.5 people per vehicle), while the 2.7 to 4.0 percent used in the DEA measures the number of actual ORVs.

(45) *Comment:* One commenter noted that the Vogelsong study was conducted from 2001 to 2002, and thus the percentage of ORV visitors to CAHA should be based on visitation during that period rather than visitation for 2003.

Our Response: According to CAHA statistics, average visitation between 2001 and 2002 is estimated at 2,758,392. Using that visitation estimate and Vogelsong's estimated 73,526 to 110,288 ORVs, ORVs represent approximately 2.7 to 4.0 percent of all visitors to the park. This is clarified in the FEA (section 2.3.1.1) to reference the correct study years.

(46) *Comment:* One commenter suggested that using an estimated number of ORVs per acre is a "strange metric" on which to base estimated losses in ORV user days.

Our Response: Without a site-specific model, the DEA assumes that visitation is a function of the area available for recreation. Specifically, as outlined in section 2, the FEA assumes that the reduction in visitation is directly proportional to the percentage reduction in area available for recreation. The DEA thus distributes total annual ORV visits to the park across the total acreage of CAHA to develop an estimated number of ORV visits to each of the designated areas.

(47) *Comment:* One commenter suggested that projecting visitation rates based on North Carolina population trends may over-estimate the number of future visitors.

Our Response: The DEA projects visitation forward using the slope of annual park visitation from 1990–2000. That is, it assumes CAHA visitation will continue to grow at the same rate over the next 20 years as it did from 1990 to 2000 (see section 2.3.1.1 of the DEA). To determine if this assumption is reasonable, the DEA also examines population trends in North Carolina for the same periods (i.e., 1990 to 2000 and the next 20 years). Given that the North Carolina population growth rates were

similar for the two periods and that the majority of visitors live in North Carolina, the DEA assumes that it is reasonable to project future visitation based on past visitation trends.

(48) *Comment:* One commenter stated that the DEA does not anticipate additional closures because of the Consent Decree.

Our Response: The FEA includes a discussion of the Consent Decree in section 2.2.1.2. Due to uncertainty about future management including the impact of the Consent Decree, the FEA provides a range of estimated impacts based on two scenarios. In the first scenario, it estimates the additional area that may be subject to closure, and estimates the number of trips to these areas that may potentially be lost (see section 2.3.2). In the second scenario, it assumes that either no additional beach closures are implemented, or that additional beach closures do not result in lost trips to CAHA (see section 2.3.3).

(49) *Comment:* One commenter stated that it is inappropriate to connect increased park visitation and ORV use with decreased population.

Our Response: As shown in exhibit 2–4 of the FEA, the population of North Carolina is projected to increase, and the DEA assumes that this increased population will result in an increase in visitation to the park (see section 2.3.1.1).

(50) *Comment:* One commenter stated that estimates of ORVs per acre within CAHA used in the DEA are based on unsubstantiated assumptions, assumptions for which there is no statistical support. Specifically, the commenter noted that the DEA assumes there is a direct relationship between the number of ORV trips and the level of park visitation. However, the DEA does not provide a coefficient of correlation or the results of a regression analysis to demonstrate that such a direct relationship exists.

Our Response: The commenter is correct in noting that the DEA assumes a linear relationship between park visitation and ORV use, and that there is no statistical model on which this assumption is based (see section 2.3.1.1). ORV users are a subset of visitors to the park. The DEA assumes, based on visitor use studies, that ORV use represents a fairly constant percentage of visitation to the park (see section 2.3.1.1 of the FEA). Data to develop a formal statistical relationship between overall visitation and ORV use are not available.

(51) *Comment:* One commenter stated that a reduction in accessible areas increases congestion in open areas, and thus also may affect the welfare of

visitors to those open areas. Therefore, a 15 percent reduction in available area may result in a more than 15 percent decrease in visitors.

Our Response: As outlined in section 2.3.1 of the FEA, the analysis assumes that the reduction in visitation is directly proportional to the percentage reduction in area available for recreation. A literature review undertaken for another species suggests that this is a reasonable approach to estimating impacts associated with a partial site closure (see J.R. DeShazo, "The Effects of Closing a Portion of a Recreational Site on Visitation and Social Welfare: A Literature Review"). This approach is further outlined in section 2.2.2 of the FEA.

(52) *Comment:* One commenter suggested that it may not be reasonable to assume that most fishermen access fishing sites via ORVs, and therefore welfare losses associated with recreational fishing should not be included in the DEA.

Our Response: Based on discussions with NPS and other public comments received, many fishermen use ORVs as a means of accessing popular fishing sites. Therefore, the DEA estimates potential welfare losses associated with a decrease in recreational fishing opportunities due to a loss of access, as discussed in section 2.3.1.3 of the DEA.

(53) *Comment:* One commenter stated that the DEA failed to consider potential impacts on recreational fishing.

Our Response: As stated in section 2.3.1.3, the DEA includes potential welfare losses associated with losses in recreational fishing opportunities, estimating the welfare value of a recreational fishing day at \$212.20. This welfare value is used to develop an estimate of total welfare losses that may result from the critical habitat designation.

(54) *Comment:* Several commenters stated that the DEA does not consider the potential effects of critical habitat designation on the Bonner Bridge replacement project.

Our Response: See our response to comment 22. The anticipated administrative costs of consulting on the Bonner Bridge project are included in section 4 of the FEA.

(55) *Comment:* One commenter raised the concern that the DEA does not consider the potential effects of critical habitat designation on the dredging of sandbars, and the subsequent impact of this change in dredging on ferry service. The commenter stated that if ferry service to Ocracoke Island were to stop, there would be significant economic impacts to its residents.

Our Response: Section 3.1 of the DEA discusses potential impacts on dredging. As noted in that section of the DEA, dredging activity is not anticipated to be affected by the designation; therefore, ferry service also would not be affected. However, there may be an increased rate of consultation for dredging projects, which is considered in section 4 of the FEA.

(56) *Comment:* One commenter stated that it seems that the designation of critical habitat for the piping plover would eventually lead to a direct conflict with erosion control efforts, and that potential impacts on erosion control are not considered in the DEA.

Our Response: As discussed in section 3.3 of the FEA, other activities, including erosion control, taking place within CAHA are managed under the Interim Strategy and the Consent Decree. No changes to this management are anticipated as a result of the critical habitat designation; therefore, no incremental impacts associated with erosion control are estimated.

(57) *Comment:* One commenter was concerned that the DEA underestimated the economic impacts of critical habitat designation by not considering impacts to Federal agencies. Specifically, the commenter stated that the DEA does not include the costs to the NPS of reinitiating a 2006 formal consultation following critical habitat designation.

Our Response: Impacts to Federal agencies resulting from the critical habitat designation are expected to consist primarily of an increased rate of consultation under section 7 of the Act (see section 4 of the DEA). Administrative costs associated with this increased rate of consultation are estimated in that section of the analysis. This analysis assumes that the frequency of section 7 consultations related to the plover will increase in the future, and estimates future administrative costs based on that assumed increase in consultation rate (see exhibit 4–2). The possible reinitiation of the 2006 formal consultation, as well as possible consultations on the future ORV management plan, are included in this projected increase. See also our responses to comments 22 and 23 above.

(58) *Comment:* Several commenters suggested that the estimated trip expenditures used in the DEA seemed low.

Our Response: The trip expenditures used in the DEA were obtained from the Vogelsong visitor use study and appear to be reasonably in line with other available estimates of beach trip expenditures, as discussed in section 2.3.1.3 of the DEA. Nonetheless, the

FEA includes additional detail on a range of possible expenditures based on the comments received.

(59) *Comment:* Several commenters stated that the DEA does not consider the closure of additional beaches due to the Consent Decree. The commenters are concerned that additional beach closures will reduce the number of visitors and thus reduce the amount of expenditures on vacation rentals and other services.

Our Response: Discussion of the Consent Decree can be found in section 2.2.1.2 of the FEA. These additional closures are being implemented by NPS pursuant to the Consent Decree; that is, these closures are considered baseline to this analysis in that they would be expected to occur regardless of the designation. In fact, actions taken under the Consent Decree may lead to a reduction in the area that could become subject to closure under the critical habitat designation, and thereby reduce impacts to less than those forecast in the DEA. That is, to the extent that actions taken by the NPS under the Consent Decree lead to beach closures, the extent of closures due solely to the designation of critical habitat may be reduced. Note that, given the high level of uncertainty regarding the long-term impact of the Consent Decree, this analysis continues to consider the potential impact of closures to these areas.

(60) *Comment:* Several commenters stated that potential impacts to small businesses resulting from possible closures could be greater than discussed in appendix A of the DEA. Specifically, one commenter stated that the DEA does not consider impacts to businesses on Ocracoke Island. These businesses are reporting income reductions of 30 to 50 percent following management changes taken by the NPS in response to the Consent Decree.

Our Response: As noted above, it is important to distinguish between impacts resulting from actions taken pursuant to the Consent Decree, which are considered as baseline to this analysis, because these impacts are assumed to occur absent a designation of critical habitat. While direct impacts of actions taken pursuant to the Consent Decree are not estimated in this analysis, income reductions that have been experienced following these management changes may provide information regarding how small businesses may be affected in the event of additional beach closures. A revised appendix A includes a discussion of these reductions in income and potential factors that may cause these reductions (see section A.1.1). It assumes that these impacts would be

spread across a variety of industries and a number of businesses. A survey of specific potential effects of management closures on individual businesses is beyond the scope of this analysis.

(61) *Comment:* One commenter noted that the majority of business in the Outer Banks is conducted during the summer peak season and is not spread out evenly throughout the year.

Our Response: The DEA takes into account the seasonality of visitation when forecasting the number of trips (see section 2.3.1.2 of the DEA). However, sales data are not available at a sufficient level of detail to allow for the development of the estimated impact on small businesses by season, nor were such data received during the public comment period.

(62) *Comment:* One commenter stated that the small business analysis is insufficient. Specifically, this commenter believes that impacts to small businesses will occur within a smaller geographic area, and, therefore, a smaller number of businesses would be affected (approximately 370 businesses across eight zip codes rather than the approximately 700 businesses in two counties considered in the DEA).

Our Response: To estimate the number of small businesses, appendix A of the FEA uses best available data on such factors as the size and annual sales of businesses in the area, as collected by Dun & Bradstreet. These data are available on a county-wide basis. In total, the analysis considers impacts on more than 700 small entities. Depending on where visitors to the park spend money on goods and services, it is possible that the projected impacts could be felt over a smaller geographic area, as suggested in the comments. To address this concern, the FEA incorporates an analysis of the 370 businesses cited in the comment, and estimates the magnitude of potential impacts on these businesses.

Other Comments

(63) *Comment:* Several commenters suggested that recreational access to CAHA via ORVs be authorized using a permit and education program. Similarly, at least one commenter suggested that information on proper beach etiquette be provided when a fishing license is purchased. One commenter expanded on that idea by suggesting that the NCWRC should withhold saltwater fishing licenses to those who violate habitat restrictions.

Our Response: Decisions regarding the management of recreational activities at CAHA are the exclusive purview of the NPS. Similarly, any program associated with the issuance of

a saltwater fishing license or the potential revocation of such a license would require the authorization of the NCWRC. The Service is willing to provide technical assistance on matters associated with the implementation of an education and permit program as it relates to endangered and threatened species and their habitats, but we are not authorized to implement or enforce such programs at CAHA or in association with the State of North Carolina's saltwater fishing license program.

(64) *Comment:* One commenter suggested that the Service start a volunteer corps to monitor bird nesting areas and to ensure that the piping plovers are protected from other animals and humans.

Our Response: The NPS is responsible for the management of endangered and threatened wildlife parks and seashores throughout the United States. At CAHA, biologists currently monitor nesting and wintering shorebirds, including the piping plover, and make decisions regarding the protection of the birds and the habitat necessary for their survival and recovery. Outside of CAHA and Cape Lookout National Seashore, the NCWRC manages sites for endangered and threatened species and other imperiled shorebird and waterbird species. The Service works closely with these agencies in the management and protection of these species, including assisting the agencies with funds, volunteers, and information. We recommend that anyone interested in volunteering to assist in the protection of endangered or threatened species contact the appropriate landmanager for additional information and opportunities. For NPS properties, send inquiries on volunteering to: Cape Hatteras National Seashore, 1401 National Park Drive, Manteo, NC 27954; or Cape Lookout National Seashore, 131 Charles Street, Harkers Island, NC 28531. For endangered and threatened species volunteering opportunities throughout the rest of the State of North Carolina, we recommend sending inquiries to: North Carolina Wildlife Resources Commission, NCSU Centennial Campus, 1751 Varsity Drive, Raleigh, NC 27606.

(65) *Comment:* One commenter wrote "the real threat to the piping plover is people and developers. Real estate developers are putting people on the sand where the plovers used to live." Another person wrote that construction and development on those islands has a bigger impact on the environment than the fishermen.

Our Response: We have noted these comments.

Summary of Changes From Proposed Rule

In preparing the final critical habitat designation for the wintering population of the piping plover in North Carolina, we reviewed and considered comments from the public and peer reviewers on the June 12, 2006, proposed designation of critical habitat (71 FR 33703) and the May 31, 2007, draft economic analysis and environmental assessment (72 FR 30326), as well as the May 15, 2008, revised critical habitat proposal and associated draft economic analysis and environmental assessment (73 FR 28084). As a result, our final designation includes all areas proposed (and revised) as critical habitat for the wintering population of the piping plover in North Carolina (i.e., units NC-1, NC-2, NC-4, and NC-5), totaling approximately 2,043 acres (ac) (827 hectares (ha)).

Critical Habitat

Critical habitat is defined in section 3 of the Act as:

(i) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species and

(b) That may require special management considerations or protection; and

(ii) Specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means the use of all methods and procedures that are necessary to bring any endangered species or threatened species to the point at which the measures provided under the Act are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking.

Critical habitat receives protection under section 7 of the Act through the prohibition against Federal agencies carrying out, funding, or authorizing the destruction or adverse modification of critical habitat. Section 7(a)(2) of the Act requires consultation on Federal actions

may affect critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by private landowners. Where a landowner requests Federal agency funding or authorization for an action that may affect a listed species or critical habitat, the consultation requirements of section 7(a)(2) would apply.

For inclusion in a critical habitat designation, the habitat within the geographical area occupied by the species at the time of listing must contain the physical and biological features that are essential to the conservation of the species, and be included only if those features may require special management consideration or protection. Critical habitat designations identify, to the extent known using the best scientific data available, habitat areas that provide essential life cycle needs of the species (i.e., areas on which are found those physical and biological features essential to the conservation of the species). Under the Act, we can designate critical habitat in areas outside of the geographical area occupied by the species at the time it is listed only when we determine that those areas are essential for the conservation of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act, published in the **Federal Register** on July 1, 1994 (59 FR 34271), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106-554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria, establish procedures, and provide guidance to ensure that our decisions represent the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When determining which areas should be designated as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources

may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge.

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that critical habitat designated at a particular point in time may not include all of the habitat areas that we may later determine are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not promote the recovery of the species.

Areas that support populations, but are outside the critical habitat designation, will continue to be subject to conservation actions. They are also subject to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available information at the time of the Federal agency action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may still result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans, or other species conservation planning efforts if information available at the time of these planning efforts calls for a different outcome.

Primary Constituent Elements (PCEs)

In accordance with section 3(5)(A)(i) of the Act and regulations at 50 CFR 424.12, in determining which areas occupied by the species at the time of listing to designate as critical habitat, we consider those physical and biological features essential to the conservation of the species that may require special management considerations or protection. We consider the physical and biological features to be the PCEs laid out in the appropriate quantity and spatial arrangement for the conservation of the species.

These PCEs include, but are not limited to:

- (1) Space for individual and population growth and for normal behavior;
- (2) Food, water, air, light, minerals, or other nutritional or physiological requirements;
- (3) Cover or shelter;

(4) Sites for breeding, reproduction, and rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historic geographical and ecological distributions of a species.

We derive the specific PCEs required for the wintering population of the piping plover from the biological needs of the piping plover as described in the Critical Habitat section of the original rule to designate critical habitat for the wintering population of the piping plover published in the **Federal Register** on July 10, 2001 (66 FR 36038). In its November 1, 2004, opinion (*Cape Hatteras Access Preservation Alliance v. U.S. Department of Interior* (344 F. Supp. 2d 108 (D.D.C. 2004))), the court did not invalidate the PCEs identified in our original rule. In this final rule, the PCEs differ in format from the PCEs identified in the proposed revised critical habitat designation we published on June 12, 2006 (71 FR 33703), but match the format of the PCEs identified in the proposed revised critical habitat designation for the wintering population of the piping plover in Texas, which we published on May 20, 2008 (73 FR 29293). We reformatted the PCEs to provide additional clarity and did not alter the content of the PCEs identified in our original rule (66 FR 36038).

Under the Act and its implementing regulations, we are required to identify the known physical and biological features within the geographical area known to be occupied at the time of listing that are essential to the conservation of the piping plover and which may require special management considerations or protections. The physical and biological features are those PCEs laid out in a specific spatial arrangement and quantity to be essential to the conservation of the species. All areas designated as critical habitat for the wintering population of the piping plover are occupied, are within the species' historic geographic range, and contain sufficient PCEs to support at least one life history function.

Based on our current knowledge of the life history, biology, and ecology of the species and the requirements of the habitat to sustain the essential life history functions of the species, we have determined that wintering piping plover's PCEs are the habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support these habitat components. The primary constituent elements are:

(1) Intertidal sand beaches (including sand flats) or mud flats (between annual low tide and annual high tide) with no or very sparse emergent vegetation for feeding. In some cases, these flats may be covered or partially covered by a mat of blue-green algae.

(2) Unvegetated or sparsely vegetated sand, mud, or algal flats above annual high tide for roosting. Such sites may have debris or detritus and may have micro-topographic relief (less than 20 in (50 cm) above substrate surface) offering refuge from high winds and cold weather.

(3) Surf-cast algae for feeding.

(4) Sparsely vegetated backbeach, which is the beach area above mean high tide seaward of the dune line, or in cases where no dunes exist, seaward of a delineating feature such as a vegetation line, structure, or road. Backbeach is used by plovers for roosting and refuge during storms.

(5) Spits, especially sand, running into water for foraging and roosting.

(6) Salterns, or bare sand flats in the center of mangrove ecosystems that are found above mean high water and are only irregularly flushed with sea water.

(7) Unvegetated washover areas with little or no topographic relief for feeding and roosting. Washover areas are formed and maintained by the action of hurricanes, storm surges, or other extreme wave actions.

(8) Natural conditions of sparse vegetation and little or no topographic relief mimicked in artificial habitat types (e.g., dredge spoil sites).

This final designation is designed for the conservation of PCEs necessary to support the life history functions that were the basis for the proposal and the areas containing those PCEs in the appropriate quantity and spatial arrangement essential for the conservation of the species. Because not all life history functions require all the PCEs, not all critical habitat will contain all the PCEs.

Special Management Considerations or Protections

When designating critical habitat, we assess whether the areas occupied by the species at the time of listing contain the features that are essential to the conservation of the species, and whether these features may require special management consideration or protections. As stated in the July 10, 2001, final listing rule (66 FR 36038), activities that may destroy or adversely modify critical habitat are those that alter the PCEs to an extent that the value of critical habitat for both the survival and recovery of the piping plover is appreciably reduced. More specifically,

such activities could eliminate or reduce the habitat necessary for foraging by eliminating or reducing the piping plovers' prey base; destroying or removing available upland habitats necessary for protection of the birds during storms or other harsh environmental conditions; increasing the amount of vegetation to levels that make foraging or roosting habitats unsuitable; increasing recreational activities to such an extent that the amount of available undisturbed foraging or roosting habitat is reduced, with direct or cumulative adverse effects to individuals and completion of their life cycles. Examples of actions that have effects on wintering piping plover habitats include, but are not limited to:

- (1) Dredging and dredge spoil placement, and associated activities including staging of equipment and materials;
- (2) Seismic exploration;
- (3) Construction and installation of facilities, pipelines, and roads associated with oil and gas development;
- (4) Oil and other hazardous material spills and cleanup;
- (5) Construction of dwellings, roads, marinas, and other structures, and associated activities including staging of equipment and materials;
- (6) Beach nourishment, cleaning, and stabilization (e.g., construction and maintenance of jetties and groins, planting of vegetation, and placement of dune fences);
- (7) Certain types and levels of recreational activities, such as vehicular activity that impact the substrate, resulting in reduced prey or disturbance to the species;
- (8) Stormwater and wastewater discharge from communities;
- (9) Sale, exchange, or lease that may result in the habitat being altered or degraded of Federal land that contains suitable habitat;
- (10) Marsh and coastal restoration, particularly restoration of barrier islands and other barrier shorelines;
- (11) Military missions; and
- (12) Bridge or culvert construction, reconstruction, and stabilization.

These activities may destroy or adversely modify critical habitat by:

- (1) Significantly and detrimentally altering the hydrology of tidal flats;
- (2) Significantly and detrimentally altering inputs of sediment and nutrients necessary for the maintenance of geomorphic and biologic processes that insure appropriately configured and productive systems;
- (3) Introducing significant amounts of emergent vegetation (either through

actions such as marsh restoration on naturally unvegetated sites, or through changes in hydrology such as severe rutting or changes in storm or wastewater discharges);

(4) Significantly and detrimentally altering the topography of a site (such alteration may affect the hydrology of an area or may render an area unsuitable for roosting);

(5) Reducing the value of a site by significantly disturbing plovers from activities such as foraging and roosting (including levels of human presence significantly greater than those currently experienced);

(6) Significantly and detrimentally altering water quality, which may lead to decreased diversity or productivity of prey organisms or may have direct detrimental effects on piping plovers (as in the case of an oil spill); and

(7) Impeding natural processes that create and maintain washover passes and sparsely vegetated intertidal feeding habitats.

As described in more detail in the unit descriptions below, we find that the PCEs within each unit may require special management considerations or protection due to threats to the wintering population of the piping plover or its habitat.

Criteria Used To Identify Critical Habitat

As required by section 4(b)(1)(A) of the Act, we use the best scientific and commercial data available in determining areas that contain the features that are essential to the conservation of the wintering population of the piping plover. The methodology used to identify features essential to the wintering population of the piping plover are described in the final rule to designate critical habitat published in the **Federal Register** on July 10, 2001 (66 FR 36038). We are designating critical habitat on lands that were occupied at the time of listing (66 FR 36038) and that contain sufficient PCEs to support life history functions essential for the conservation of the species. The methodology used to identify the critical habitat areas are described in the proposed rule to designate revised critical habitat published in the **Federal Register** on June 12, 2006 (71 FR 33703), and modified on May 15, 2008 (73 FR 28084).

We reviewed available information pertaining to the habitat requirements of this species. The material reviewed included data in reports submitted during section 7 consultations and by biologists holding section 10(a)(1)(A) recovery permits, research published in

peer-reviewed articles and presented in academic theses and agency reports, and recovery plans. To determine the most current distribution of piping plover in North Carolina, these areas were further evaluated using wintering piping plover occurrence data from the NCWRC, the North Carolina Natural Heritage Program, and three international piping plover winter population censuses. We considered these data along with other occurrence data (including presence/absence survey data), research published in peer-reviewed articles and presented in academic theses and agency reports, and information received during the development of the July 10, 2001, designation of critical habitat for wintering piping plovers (66 FR 36038), the June 12, 2006, proposed rule (71 FR 33703), and the May 15, 2008, revised proposed rule (73 FR 28084) to designate critical habitat for wintering piping plovers in North Carolina. To map areas containing the physical and biological features determined to be essential to the conservation of the species (see June 12, 2006, proposed rule (71 FR 33703)), we used data on known piping plover wintering locations, regional Geographic Information Systems (GIS) coverages, digital aerial photographs, and regional shoreline-defining electronic files.

We have included those areas containing essential features along the coast for which occurrence data indicate a consistent use (observations over two or more wintering seasons) by piping plovers within this designation. Delineating specific locations for designation as critical habitat for the piping plovers was difficult because the coastal areas they use are constantly changing due to storm surges, flood events, and other natural geophysical alterations of beaches and shoreline. Thus, to best ensure that areas containing features considered essential to the piping plover are included in this designation, the textual unit descriptions of the units in the regulation constitute the definitive determination as to whether an area is within the critical habitat boundary. Our textual legal descriptions describe the area using reference points, including the areas from the landward boundaries to the mean of the lower low water (MLLW) (which encompasses intertidal areas with the features that are essential foraging areas for piping plovers), and describe areas within the unit that are utilized by the piping plover and contain the PCEs (e.g., upland areas used for roosting and wind tidal flats used for foraging). Our textual legal descriptions also exclude features

and structures (e.g., buildings, roads) that are not or do not contain PCEs.

In order to capture the dynamic nature of the coastal habitat, and the intertidal areas used by the piping plover, we have textually described each unit as including the area from the MLLW height of each tidal day, as observed over the National Tidal Datum Epoch, landward to a point where PCEs no longer occur. The landward edge of the PCEs is generally demarcated by stable, densely-vegetated dune habitat which nonetheless may shift gradually over time.

Global Positioning System (GPS) data were gathered using a mobile handheld mapping unit with settings to allow for post processing or Wide Area Augmentation System (WAAS) enabled correction. A minimum of five positions were captured for each point location. Data were processed using mapping software, and the points were output to a shapefile format. The point shapefile was checked for attribute accuracy and additional data fields were added to assign feature type. GIS point data were used to create lines. The lines were overlaid on National Oceanic and Atmospheric Administration digital ortho-photographs and U.S. Geological Survey digital ortho-photographs. These

lines were refined to create the landward edge of the critical habitat polygons. To complete the polygons, a boundary was drawn in the ocean or sound to demarcate the MLLW. The line was drawn using 20-foot Light Detection and Ranging (LIDAR) and contours to estimate the location of MLLW.

When determining critical habitat boundaries, we made every effort to avoid including within the boundaries of the maps contained within this final rule developed areas such as buildings, paved areas, and other structures that lack PCEs for the wintering piping plover in North Carolina. The scale of the maps prepared under the parameters for publication within the *Code of Federal Regulations* may not reflect the exclusion of such developed areas. Any such structures and the land under them inadvertently left inside critical habitat boundaries shown on the maps of this final rule have been excluded by text in the rule and are not designated as critical habitat. Therefore, Federal actions limited to these areas would not trigger section 7 consultation, unless they affect the species or PCEs in adjacent critical habitat.

Units are designated based on sufficient PCEs being present to support wintering piping plover life processes.

Some units contain all PCEs and support multiple life processes. Some units contain only a portion of the PCEs necessary to support the wintering piping plover's particular use of that habitat. Where a subset of the PCEs is present (such as water temperature during migration flows), it has been noted that only PCEs present at designation will be protected.

A brief discussion of each area designated as critical habitat is provided in the unit descriptions below. Additional detailed documentation concerning the essential nature of these areas is contained in our supporting record for this rulemaking.

Critical Habitat Designation

We are designating four units as critical habitat for the wintering population of the piping plover in North Carolina. The critical habitat units described below constitute our current best assessment of areas that meet the definition of critical habitat for wintering piping plover in North Carolina. Table 1 shows the units that were occupied at the time of listing, the threats requiring special management or protections, land ownership, and approximate area encompassed within each unit.

TABLE 1—CRITICAL HABITAT UNITS FOR THE WINTERING PIPING PLOVER

Geographical area/unit	Threats requiring special management or protections	Land ownership	Total hectares (acres)
Unit NC-1: Oregon Inlet	Dredge and sediment disposal; Recreational use	Federal, State	196 (485)
Unit NC-2: Cape Hatteras Point	Recreational use	Federal	262 (646)
Unit NC-4: Hatteras Inlet	Dredge and sediment disposal; Recreational use	Federal, State	166 (410)
Unit NC-5: Ocracoke Island	Recreational use	Federal	203 (502)
Total	827 (2,043)

The four areas designated as critical habitat are: (1) Unit NC-1, Oregon Inlet; (2) Unit NC-2, Cape Hatteras Point; (3) Unit NC-4, Hatteras Inlet; and (4) Unit NC-5, Ocracoke Island.

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the wintering population of the piping plover, below.

Unit NC-1: Oregon Inlet

Unit NC-1 is approximately 8.0 km (5.0 mi) long, and consists of about 196 ha (485 ac) of sandy beach and inlet spit habitat on Bodie Island and Pea Island in Dare County, North Carolina. This is the northernmost critical habitat unit within the wintering range of the piping plover. Oregon Inlet is the northernmost inlet in coastal North Carolina, approximately 19.0 km (12.0 mi)

southeast of the Town of Manteo, the county seat of Dare County. The unit is bounded by the Atlantic Ocean on the east and Pamlico Sound on the west and includes lands from the mean lower low water (MLLW) on the Atlantic Ocean shoreline to the line of stable, densely vegetated dune habitat (which is not used by piping plovers and where the PCEs do not occur) and from the MLLW on the Pamlico Sound side to the line of stable, densely vegetated habitat, or (where a line of stable, densely vegetated dune habitat does not exist) lands from MLLW on the Atlantic Ocean shoreline to the MLLW on the Pamlico Sound side. The unit begins at Ramp 4 near the Oregon Inlet Fishing Center on Bodie Island and extends approximately 8.0 km (5.0 mi) south to the intersection of NC Highway 12 and Salt Flats Wildlife Trail (near Mile

Marker 30, NC Highway 12), approximately 5.0 km (3.0 mi) from the groin, on Pea Island, and includes Green Island and any emergent sandbars south and west of Oregon Inlet, and the lands owned by the State of North Carolina, specifically islands DR-005-05 and DR-005-06. However, this unit does not include the Oregon Inlet Fishing Center, NC Highway 12, the Bonner Bridge and its associated structures, the terminal groin, the historic Pea Island Life-Saving Station, or any of their ancillary facilities (e.g., parking lots, out buildings). This unit contains the PCEs essential to the conservation of the species, including a contiguous mix of intertidal beaches and sand or mud flats (between annual low tide and annual high tide) with no or very sparse emergent vegetation, and adjacent areas of unvegetated or sparsely vegetated

dune systems and sand or mud flats above annual high tide.

Oregon Inlet has reported consistent use by wintering piping plovers dating from the mid-1960s. As many as 100 piping plovers have been reported from a single day survey during the fall migration (NCWRC unpublished data). Christmas bird counts regularly recorded 20 to 30 plovers using the area. Recent surveys have also recorded consistent and repeated use of the area by banded piping plovers from the endangered Great Lakes breeding population (Stucker and Cuthbert 2006). The overall number of piping plovers reported using the area has declined since the species was listed in 1986 (NCWRC unpublished data), which corresponds to increases in the number of human users (NPS 2005) and off-road vehicles (Davis and Truett 2000).

Oregon Inlet is one of the first beach access points for off-road vehicles within Cape Hatteras National Seashore when traveling from the developed coastal communities of Nags Head, Kill Devil Hills, Kitty Hawk, and Manteo. As such, the inlet spit is a popular area for off-road vehicle users to congregate. The majority of the Cape Hatteras National Seashore users in this area are off-road vehicle owners and recreational fishermen. In fact, a recent visitor use study of Cape Hatteras National Seashore reported that Oregon Inlet is the second most popular off-road vehicle use area in the park (Vogelsong 2003). Furthermore, the adjacent islands are easily accessed by boat, which can be launched from the nearby Oregon Inlet Fishing Center. Pea Island National Wildlife Refuge (PINWR) does not allow off-road vehicle use; however, Pea Island regularly receives dredged sediments from the maintenance dredging of Oregon Inlet by the Corps. The disposal of dredged sediments on PINWR has the potential to disturb foraging and roosting plovers and their habitats. As a result, the sandy beach and mud and sand flat habitats in this unit may require special management considerations or protection, as discussed in "Special Management Considerations or Protections" above.

Unit NC-2: Cape Hatteras Point

Unit NC-2 consists of 262 ha (646 ac) of sandy beach and sand and mud flat habitat in Dare County, North Carolina. Cape Hatteras Point (also known as Cape Point or Hatteras Cove) is located south of the Cape Hatteras Lighthouse. The unit extends south approximately 2.8 mi (4.5 km) from the ocean groin near the old location of the Cape Hatteras Lighthouse to the point of Cape Hatteras, and then extends west 4.7 mi

(7.6 km) along Hatteras Cove shoreline (South Beach) to the edge of Ramp 49 near the Frisco Campground. This unit includes lands from the MLLW on the Atlantic Ocean shoreline to the line of stable, densely vegetated dune habitat (which is not used by piping plovers and where PCEs do not occur). This unit contains the PCEs essential to the conservation of the species, including a contiguous mix of intertidal beaches and sand or mud flats (between annual low tide and annual high tide) with no or very sparse emergent vegetation, and adjacent areas of unvegetated or sparsely vegetated dune systems and sand or mud flats above annual high tide. This unit does not include the ocean groin.

Consistent use by wintering piping plover has been reported at Cape Hatteras Point since the early 1980s, but the specific area of use was not consistently recorded in earlier reports. Often piping plovers found at Cape Hatteras Point, Cape Hatteras Cove, and Hatteras Inlet were reported as a collective group. However, more recent surveys report plover use at Cape Hatteras Point independently from Hatteras Inlet. These single day surveys have recorded as many as 13 piping plovers a day during migration (NCWRC unpublished data). Christmas bird counts regularly recorded 2 to 11 plovers using the area. Cape Hatteras Point is located near the Town of Buxton, the largest community on Hatteras Island. For that reason, Cape Hatteras Point is a popular area for ORV use and recreational fishing. A recent visitor use study of the park found that Cape Hatteras Point had the most ORV use within the park (Vogelsong 2003). As a result, the sandy beach and mud and sand flat habitats in this unit may require special management considerations or protection, as discussed in "Special Management Considerations or Protections" above.

Unit NC-4: Hatteras Inlet

Unit NC-4 is approximately 8.0 km (5.0 mi) long, and consists of 166 ha (410 ac) of sandy beach and inlet spit habitat on the western end of Hatteras Island and the eastern end of Ocracoke Island in Dare and Hyde Counties, North Carolina. The unit begins at the first beach access point at Ramp 55 at the end of NC Highway 12 near the Graveyard of the Atlantic Museum on the western end of Hatteras Island and continues southwest to the beach access at the ocean-side parking lot near Ramp 59 on the northeastern end of Ocracoke Island. This unit includes lands from the MLLW on the Atlantic Ocean shoreline to the line of stable, densely

vegetated dune habitat (which itself is not used by the piping plover and where PCEs do not occur) and from the MLLW on the Pamlico Sound side to the line of stable, densely vegetated habitat, or (where a line of stable, densely vegetated dune habitat does not exist) lands from MLLW on the Atlantic Ocean shoreline to the MLLW on the Pamlico Sound side. The Hatteras Inlet unit includes all emergent sandbars within Hatteras Inlet including lands owned by the State of North Carolina, specifically Island DR-009-03/04. The unit is adjacent to, but does not include, the Graveyard of the Atlantic Museum, the ferry terminal, the groin on Ocracoke Island, NC Highway 12, or their ancillary facilities (e.g., parking lots, out buildings). This unit contains the PCEs essential to the conservation of the species, including a contiguous mix of intertidal beaches and sand or mud flats (between annual low tide and annual high tide) with no or very sparse emergent vegetation, and adjacent areas of unvegetated or sparsely vegetated dune systems and sand or mud flats above annual high tide.

Hatteras Inlet has reported consistent use by wintering piping plovers since the early 1980s, but the specific area of use was not consistently recorded in earlier reports. Often piping plovers found at Cape Hatteras Point, Cape Hatteras Cove, and Hatteras Inlet were reported as a collective group. However, more recent surveys report plover use at Hatteras Inlet independently from Cape Hatteras Point. These single-day surveys have recorded as many as 40 piping plovers a day during migration (NCWRC unpublished data). Christmas bird counts regularly recorded 2 to 11 plovers using the area. Recent surveys have also recorded consistent and repeated use of the area by banded piping plovers from the endangered Great Lakes breeding population (Stucker and Cuthbert 2006). The overall numbers of piping plovers reported using the area has declined in the last 10 years (NCWRC unpublished data), corresponding with increases in the number of human users (NPS 2005) and off-road vehicles (Davis and Truett 2000).

Hatteras Inlet is located near the Village of Hatteras, Dare County, and is the southernmost point of Cape Hatteras National Seashore that can be reached without having to take a ferry. As such, the inlet is a popular off-road vehicle and recreational fishing area. In fact, a recent visitor use study of the park found Hatteras Inlet the fourth most used area by off-road vehicles in the park (Vogelsong 2003). Furthermore, the adjacent islands are easily accessed by

boat, which can be launched from the nearby marinas of Hatteras Village. As a result, the sandy beach and mud and sand flat habitats in this unit may require special management considerations or protection, as discussed in "Special Management Considerations or Protections" above.

Unit NC-5: Ocracoke Island

This unit consists of 203 ha (502 ac) of sandy beach and mud and sand flat habitat in Hyde County, North Carolina. The unit includes the western portion of Ocracoke Island beginning at the beach access point at the edge of Ramp 72 (South Point Road), extending west approximately 2.1 mi (3.4 km) to Ocracoke Inlet, and then back east on the Pamlico Sound side to a point where stable, densely vegetated dune habitat meets the water. This unit includes lands from the MLLW on the Atlantic Ocean shoreline to the line of stable, densely vegetated dune habitat (which is not used by the piping plover and where PCEs do not occur) and from the MLLW on the Pamlico Sound side to the line of stable, densely vegetated habitat, or (where a line of stable, densely vegetated dune habitat does not exist) lands from MLLW on the Atlantic Ocean shoreline to the MLLW on the Pamlico Sound side. The unit includes all emergent sandbars within Ocracoke Inlet. This unit contains the PCEs essential to the conservation of the species, including a contiguous mix of intertidal beaches and sand or mud flats (between annual low tide and annual high tide) with no or very sparse emergent vegetation, and adjacent areas of unvegetated or sparsely vegetated dune systems and sand or mud flats above annual high tide. The unit is adjacent to but does not include NC Highway 12, any portion of the maintained South Point Road at Ramp 72, or any of their ancillary facilities.

Ocracoke Island had inconsistent recorded use by wintering piping plovers in the early 1980s, and Christmas bird counts recorded only 1 to 6 plovers using the area throughout the early 1990s. However, since the late 1990s when regular and consistent surveys of the area were conducted, as many as 72 piping plovers have been recorded during migration, and 4 to 18 plovers have been regularly recorded during the overwinter period (NCWRC unpublished data). Recent surveys have also recorded consistent and repeated use of the area by banded piping plovers from the endangered Great Lakes breeding population (Stucker and Cuthbert 2006).

Ocracoke Inlet is located near the Village of Ocracoke, and is the

southernmost point of the Cape Hatteras National Seashore. Ocracoke Island is only accessible by ferry. As such, the island is a popular destination for vacationers and locals interested in seclusion. The inlet is also a popular recreational fishing and ORV area. A recent visitor use study of the park reported Ocracoke Inlet was the third most popular ORV use area in the park (Vogelsong 2003). As a result, the primary threat to the wintering piping plover and its habitat within this unit is disturbance to and degradation of foraging and roosting areas by ORVs and by people and their pets. Therefore, sandy beach and mud and sand flat habitats in this unit may require special management considerations or protection, as discussed in "Special Management Considerations or Protections" above.

Effects of Critical Habitat Designation

Section 7 Consultation

Section 7 of the Act requires Federal agencies to ensure that actions they fund, authorize, or carry out are not likely to jeopardize the continued existence of a listed species or destroy or adversely modify designated critical habitat. Decisions by the Fifth and Ninth Circuit Court of Appeals have invalidated our definition of "destruction or adverse modification" (50 CFR 402.02) (see *Gifford Pinchot Task Force v. U.S. Fish and Wildlife Service* 378 F. 3d 1059 (9th Cir 2004) and *Sierra Club v. U.S. Fish and Wildlife Service et al.*, 245 F. 3d 434, 442F (5th Cir 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the PCEs to be functionally established) to serve its intended conservation role for the species.

Under section 7(a)(2) of the Act, if a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions are likely to adversely affect listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. We define "Reasonable and prudent alternatives" at 50 CFR 402.02 as alternative actions identified during consultation that:

- Can be implemented in a manner consistent with the intended purpose of the action,
- Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,
- Are economically and technologically feasible, and
- Would, in the Director's opinion, avoid jeopardizing the continued existence of the listed species or destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinstate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies may sometimes need to request reinstitution of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

Federal activities that may affect the piping plover or its designated critical habitat will require section 7(a)(2) consultation under the Act. Activities on State, Tribal, local, or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) or a permit from us under section 10(a)(1)(B) of the Act) will also be subject to the

consultation process under section 7(a)(2) of the Act. Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not Federally funded, authorized, or carried out, do not require section 7(a)(2) consultations.

Application of the "Adverse Modification Standard"

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the PCEs to be functionally established) to serve its intended conservation role for the species. Activities that may destroy or adversely modify critical habitat are those that alter the physical and biological features to an extent that appreciably reduces the conservation value of critical habitat for the piping plover. Generally, the conservation role of piping plover critical habitat units is to support viable core area populations.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe in any proposed or final regulation that designates critical habitat those activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and, therefore, should result in consultation for the piping plover are identified in our original rule designating critical habitat published in the **Federal Register** on July 10, 2001 (66 FR 36038). These activities include, but are not limited to:

(1) Actions that would significantly and detrimentally alter the hydrology of tidal flats.

(2) Actions that would significantly and detrimentally alter inputs of sediment and nutrients necessary for the maintenance of geomorphic and biologic processes that insure appropriately configured and productive systems.

(3) Actions that would introduce significant amounts of emergent vegetation (either through actions such as marsh restoration on naturally unvegetated sites, or through changes in hydrology such as severe rutting or changes in storm or wastewater discharges).

(4) Actions that would significantly and detrimentally alter the topography of a site (such alteration may affect the hydrology of an area or may render an area unsuitable for roosting).

(5) Actions that would reduce the value of a site by significantly disturbing piping plovers from activities such as foraging and roosting (including levels of human presence significantly greater than those currently experienced).

(6) Actions that would significantly and detrimentally alter water quality, which may lead to decreased diversity or productivity of prey organisms or may have direct detrimental effects on piping plovers (as in the case of an oil spill).

(7) Actions that would impede natural processes that create and maintain washover passes and sparsely vegetated intertidal feeding habitats.

We consider all of the units designated as critical habitat to contain features essential to the conservation of the wintering population of the piping plover in North Carolina. All units are within the geographic range of the species, all were occupied by the species at the time of listing, and all are likely to be used by the piping plover. Under section 7 of the Act, Federal agencies already consult with us on activities in areas currently occupied by the piping plover, or if the species may be affected by the action, the consultation is to ensure that their actions do not jeopardize the continued existence of the piping plover.

Exemptions and Exclusions

Application of Section 4(a)(3) of the Act

The Sikes Act Improvement Act of 1997 (Sikes Act) (16 U.S.C. 670a) required each military installation that includes land and water suitable for the conservation and management of natural resources to complete an integrated natural resource management plan (INRMP) by November 17, 2001. An INRMP integrates implementation of the military mission of the installation with stewardship of the natural resources found on the base. Each INRMP includes:

- An assessment of the ecological needs on the installation, including the need to provide for the conservation of listed species;
- A statement of goals and priorities;
- A detailed description of management actions to be implemented to provide for these ecological needs; and
- A monitoring and adaptive management plan.

Among other things, each INRMP must, to the extent appropriate and applicable, provide for fish and wildlife management; fish and wildlife habitat enhancement or modification; wetland protection, enhancement, and

restoration where necessary to support fish and wildlife; and enforcement of applicable natural resource laws.

The National Defense Authorization Act for Fiscal Year 2004 (Pub. L. 108-136) amended the Act to limit areas eligible for designation as critical habitat. Specifically, section 4(a)(3)(B)(i) of the Act (16 U.S.C. 1533(a)(3)(B)(i)) now provides: "The Secretary shall not designate as critical habitat any lands or other geographical areas owned or controlled by the Department of Defense, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation."

There are no Department of Defense lands with a completed INRMP within the critical habitat designation.

Application of Section 4(b)(2) of the Act

Section 4(b)(2) of the Act states that the Secretary must designate and revise critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the statute, as well as the legislative history, is clear that the Secretary has discretion as to which factors to use and how much weight to give to any factor.

Under section 4(b)(2), in considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. If based on this analysis we determine that the benefits of exclusion would outweigh the benefits of inclusion of an area, then we can exclude the area only if such exclusions would not result in the extinction of the species.

Under section 4(b)(2) of the Act, we must consider all relevant impacts, including economic impacts. We consider a number of factors in a section 4(b)(2) analysis. For example, we consider whether there are lands owned

or managed by the Department of Defense (DOD) where a national security impact might exist. We also consider whether the landowners have developed any conservation plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In this instance, we have determined that the lands designated as critical habitat for the wintering population of piping plover in North Carolina are not owned or managed by the Department of Defense, there are currently no habitat conservation plans, and the designation does not include any Tribal lands or trust resources. We anticipate no impact to national security, Tribal lands, partnerships, or habitat conservation plans from this critical habitat designation. Therefore, there are no areas excluded from this final designation based on non-economic impacts.

Economic Analysis

Section 4(b)(2) of the Act requires us to designate critical habitat on the basis of the best scientific information available and to consider the economic and other relevant impacts of designating a particular area as critical habitat. Section 4(b)(2) of the Act allows the Secretary to exclude areas from critical habitat for economic reasons if the Secretary determines that the benefits of such exclusion outweigh the benefits of designating the area as critical habitat. However, this exclusion cannot occur if it will result in the extinction of the species concerned.

In order to consider economic impacts, we prepared a draft economic analysis, which we made available for public review on May 31, 2007 (72 FR 30326), based on the June 12, 2006, proposed rule (71 FR 33703). We then made available for public review on May 15, 2008 (73 FR 28084), a revised draft economic analysis based on the May 15, 2008, revised proposed rule (73 FR 28084). We accepted comments on the draft analysis until July 30, 2007, and accepted comments on the revised draft economic analysis until June 16, 2008. Following the close of both comment periods, a final analysis of the potential economic effects of the designation was developed taking into consideration the public comments and any new information.

The intent of the final economic analysis (FEA) is to quantify the

economic impacts of all potential conservation efforts for the wintering population of the piping plover in North Carolina. It estimates costs that will likely be incurred regardless of whether we designate critical habitat (baseline). However, consistent with the court's order in *Cape Hatteras Access Preservation Alliance*, the FEA also estimates the foreseeable economic impacts of conservation measures associated with the revised designation of critical habitat for the wintering population of the piping plover in North Carolina on government agencies, private businesses, and individuals (incremental costs). Specifically, the analysis measures how management activities undertaken by the NPS, the Service, and the State of North Carolina to protect wintering piping plover habitat against the threat of off-road vehicle (ORV) use or other recreational use of the beach may affect the value of the beaches to ORV and other recreational users and the region. In this analysis, it is assumed that the primary management tool employed for wintering piping plover conservation in North Carolina could be the implementation of closures of certain portions of the beach. If implemented, these closures would reduce the opportunity for recreational activities, such as ORV use. The Service believes that additional beach closures due to the designation of critical habitat for wintering piping plovers are unlikely.

The FEA also addresses how potential economic impacts are likely to be distributed, including an assessment of any local or regional impacts of habitat conservation and the potential effects of conservation activities on government agencies, private businesses, and individuals. The FEA measures lost economic efficiency associated with residential and commercial development and public projects and activities, such as economic impacts on water management and transportation projects, Federal lands, small entities, and the energy industry. Decision-makers can use this information to assess whether the effects of the designation might unduly burden a particular group or economic sector. Finally, the FEA looks retrospectively at costs that have been incurred since 1985 (year of the species' listing) (50 FR 50726), and considers those costs that may occur in the 19 years following the designation of critical habitat. Because the economic analysis considers the potential economic effects of all actions relating to the conservation of the wintering population of the piping plover in North Carolina, including

costs associated with sections 4, 7, and 10 of the Act and those attributable to designation of critical habitat, the economic analysis may have overestimated the potential economic impacts of the revised critical habitat designation.

The economic analysis forecasts that costs associated with conservation activities for the wintering population of the piping plover in North Carolina would range from \$0 to \$11.9 million in lost consumer surplus and \$0 to \$20.2 million in lost trip expenditures, using a real rate of 7 percent over the next 20 years, with an additional \$190,000 to \$476,000 in administrative costs. This amounts to \$0 to \$985,000 in lost consumer surplus and \$0 to \$1.6 million in lost trip expenditures, annually. Using a real rate of 3 percent, discounted forecast impacts are estimated at \$0 to \$17.1 million in lost consumer surplus and \$0 to \$29.1 million in lost trip expenditures over the next 20 years, with an additional \$141,000 to \$354,000 in administrative costs. This amounts to \$0 to \$1.1 million in lost consumer surplus and \$0 to \$2.0 million in lost trip expenditures, annually. These costs are not related to, or the result of, the recently announced beach closures designed to protect breeding piping plovers and other seabirds resulting from the April 30, 2008, settlement agreement (see "Previous Federal Actions" above). Of the four units proposed as revised critical habitat, unit NC-2 is calculated to experience the highest estimated costs (about 40 percent) in both lost consumer surplus (\$0 to \$4.6 million, discounted at 7 percent) and lost trip expenditures (\$0 to \$8.0 million, discounted at 7 percent). Units NC-4, NC-5, and NC-1 account for about 26, 20, and 14 percent, respectively, of the total potential impacts.

This large range in forecast impacts is the result of two major uncertainties: (1) How NPS will manage beach access differently because of the critical habitat designation (e.g., whether any additional closures will be implemented); and (2) whether management activities, such as closures, will affect visitation levels or quality of visits for ORV users. Given these uncertainties, the FEA presents two scenarios to capture the potential range of impacts:

(1) A high-end estimate that describes the potential incremental impacts of additional beach closures as a result of critical habitat designation. This scenario assumes that additional closures will result in decreased trips to this area (i.e., closures in addition to

those in place under current NPS management).

(2) A low-end estimate that assumes that no trips will be lost either because NPS does not implement additional closures in response to the designation, or because the closures do not result in decreased levels of visitation or quality of ORV activities on the beach. Under this scenario, there are no lost trips in the future.

These scenarios define the range of incremental costs that may result from the designation of critical habitat, depending on the Service's and the NPS's future implementation of the regulation. It is important to note that the NPS anticipates that ORV access to the beach will not be affected by the designation of critical habitat. Furthermore, the economic analysis quotes the Service, stating that "it is highly unlikely that the Service would recommend any additional closures associated with wintering piping plover critical habitat given that the NPS will be protecting the essential resources that are needed during the wintering months." Therefore, the high bound estimate includes a scenario of hypothetical conservation actions (i.e., additional beach closures that decrease ORV use and visitation) that are highly improbable.

Because our economic analysis did not identify any disproportionate costs that are likely to result from the designation, we did not consider excluding any areas from this designation of critical habitat for the wintering population of piping plover in North Carolina based on economic impacts.

A copy of the final economic analysis with supporting documents may be obtained by contacting the Raleigh Ecological Services Field Office (see **ADDRESSES**) or for downloading from the Internet at <http://www.regulations.gov> and http://www.fws.gov/raleigh/es_piplch.html.

Required Determinations

Regulatory Planning and Review

The Office of Management and Budget (OMB) has determined that this rule is not significant and has not reviewed this rule under Executive Order 12866 (E.O. 12866). OMB bases its determination upon the following four criteria:

(a) Whether the rule will have an annual effect of \$100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government.

(b) Whether the rule will create inconsistencies with other Federal agencies' actions.

(c) Whether the rule will materially affect entitlements, grants, user fees, loan programs or the rights and obligations of their recipients.

(d) Whether the rule raises novel legal or policy issues.

Regulatory Flexibility Act (5 U.S.C. 601 et seq.)

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effect of the rule on small entities (i.e., small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of an agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended RFA to require Federal agencies to provide a certification statement of factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities. In this final rule, we are certifying that the critical habitat designation for the wintering population of the piping plover will not have a significant economic impact on a substantial number of small entities. The following discussion explains our rationale.

According to the Small Business Administration (SBA), small entities include small organizations, such as independent nonprofit organizations; small governmental jurisdictions, including school boards and city and town governments that serve fewer than 50,000 residents; as well as small businesses. Small businesses include manufacturing and mining concerns with fewer than 500 employees, wholesale trade entities with fewer than 100 employees, retail and service businesses with less than \$5 million in annual sales, general and heavy construction businesses with less than \$27.5 million in annual business, special trade contractors doing less than \$11.5 million in annual business, and agricultural businesses with annual sales less than \$750,000. To determine if potential economic impacts to these small entities are significant, we consider the types of activities that might trigger regulatory impacts under this rule, as well as the types of project modifications that may result. In

general, the term "significant economic impact" is meant to apply to a typical small business firm's business operations.

To determine if the rule could significantly affect a substantial number of small entities, we consider the number of small entities affected within particular types of economic activities (e.g., housing development, grazing, oil and gas production, timber harvesting). We apply the "substantial number" test individually to each industry to determine if certification is appropriate. However, the SBREFA does not explicitly define "substantial number" or "significant economic impact." Consequently, to assess whether a "substantial number" of small entities is affected by this designation, this analysis considers the relative number of small entities likely to be impacted in an area. In some circumstances, especially with critical habitat designations of limited extent, we may aggregate across all industries and consider whether the total number of small entities affected is substantial. In estimating the number of small entities potentially affected, we also consider whether their activities have any Federal involvement.

Designation of critical habitat only affects activities authorized, funded, or carried out by Federal agencies. Some kinds of activities are unlikely to have any Federal involvement and so will not be affected by critical habitat designation. In areas where the species is present, Federal agencies already are required to consult with us under section 7 of the Act on activities they authorize, fund, or carry out that may affect the piping plover. Federal agencies also must consult with us if their activities may affect critical habitat. Designation of critical habitat, therefore, could result in an additional economic impact on small entities due to the requirement to reinstate consultation for ongoing Federal activities (see Application of the "Adverse Modification Standard" section).

In our FEA, we evaluated the potential economic effects on small business entities resulting from conservation actions related to the listing of the wintering population of the piping plover in North Carolina and the designation of critical habitat. The analysis estimated prospective economic impacts due to the implementation of wintering piping plover conservation efforts in two categories: recreation (particularly ORV use) and section 7 consultation undertaken by the NPS, the Service, and the State of North Carolina. We

anticipate that impacts of designation on conservation activities will not have a significant economic impact on small entities because the costs of consultation are borne entirely by the NPS, the Service, and the State of North Carolina. The only impacts we expect small entities to bear are the costs associated with lost consumer surplus and lost trip expenditures. Lost trips would impact generated visitor expenditures on such items as food, lodging, shopping, transportation, entertainment, and recreation. See "Economics" section above and the FEA for a more detailed discussion of estimated discounted impacts.

Approximately 93 percent of businesses in affected industry sectors in both counties are small. Assuming that all expenditures are lost only by small businesses and that these expenditures are distributed equally across all small businesses in both counties, each small business may experience a reduction in annual sales of between \$661 and \$6,494, depending on a business's industry. Specifically, the entertainment industry may expect a loss of \$661 if no trips are lost and \$992 if trips are lost. The food industry may expect a loss of \$808 and \$1,213 for no trips lost and trips lost, respectively. The shopping industry may expect a loss of \$1,383 and \$2,077, and lodging may expect a loss of \$3,660 to \$5,495, for no trips lost and trips lost, respectively. The transportation industry may expect a loss of \$4,325 if no trips are lost and \$6,494 if trips are lost. If the small business is generating annual sales just under the SBA small business threshold for its industry, this loss represents between 0.01 and 0.08 percent of its annual sales (0.01 to 0.03 percent for food, shopping, and entertainment; 0.05 to 0.08 percent for transportation and lodging). The Service concludes that this is not a significant economic impact.

Assuming that each small business has annual sales just under its SBA industry small business threshold may underestimate lost expenditures as a percentage of annual sales. It is likely that most small businesses have annual sales well below the threshold. However, even if a business has annual sales below the small business threshold for its particular industry, it is probable that lost expenditures still are relatively small compared to annual sales. For example, if a small business has annual sales that are one-tenth of that industry's SBA small business threshold, potential losses still only represent between 0.10 and 0.85 percent of its annual sales.

In summary, we have considered whether this would result in a significant economic effect on a substantial number of small entities. Based on the above reasoning and currently available information, we certify that this rule will not have a significant economic impact on a substantial number of small business entities. Federal involvement, and thus section 7 consultations, would be limited to a subset of the area designated. The most likely Federal involvement could include NPS management actions, U.S. Army Corps of Engineers permitted or implemented actions (e.g., dredging and disposal), permits we may issue under section 10(a)(1)(B) of the Act, and Federal Highways Administration funding for road improvements. A regulatory flexibility analysis is not required.

Small Business Regulatory Enforcement Fairness Act (5 U.S.C. 801 et seq.)

Under SBREFA, this rule is not a major rule. Our detailed assessment of the economic effects of this designation is described in the final economic analysis. Based on the effects identified in the economic analysis, we believe that this rule will not have an annual effect on the economy of \$100 million or more, will not cause a major increase in costs or prices for consumers, and will not have significant adverse effects on competition, employment, investment, productivity, innovation, or the ability of U.S.-based enterprises to compete with foreign-based enterprises. Refer to the final economic analysis for a discussion of the effects of this determination.

Executive Order 13211

On May 18, 2001, the President issued Executive Order 13211 (E.O. 13211; "Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use") on regulations that significantly affect energy supply, distribution, and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. OMB has provided guidance for implementing this E.O. that outlines nine outcomes that may constitute "a significant adverse effect" when compared without the regulatory action under consideration. The economic analysis finds that none of these criteria are relevant to this analysis. Thus, based on information in the economic analysis, energy-related impacts associated with wintering piping plover conservation activities within critical habitat are not expected. As such, the designation of critical habitat is not expected to significantly

affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required.

Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.)

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 et seq.), we make the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector and includes both "Federal intergovernmental mandates" and "Federal private sector mandates." These terms are defined in 2 U.S.C. 658(5)-(7). "Federal intergovernmental mandate" includes a regulation that "would impose an enforceable duty upon State, local, or tribal governments" with two exceptions. It excludes "a condition of Federal assistance." It also excludes "a duty arising from participation in a voluntary Federal program," unless the regulation "relates to a then-existing Federal program under which \$500,000,000 or more is provided annually to State, local, and tribal governments under entitlement authority," if the provision would "increase the stringency of conditions of assistance" or "place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding" and the State, local, or Tribal governments "lack authority" to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; Aid to Families with Dependent Children work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement.) "Federal private sector mandate" includes a regulation that "would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance; or (ii) a duty arising from participation in a voluntary Federal program."

The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under section 7 of the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not result in the destruction or adverse modification of critical habitat. Non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal

agency for an action may be indirectly impacted by the designation of critical habitat. However, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments because it will not produce a Federal mandate of \$100 million or greater in any year; that is, it is not a "significant regulatory action" under the Unfunded Mandates Reform Act. The designation of critical habitat imposes no obligations on State or local governments. As such, a Small Government Agency Plan is not required.

Executive Order 12630—Takings

In accordance with E.O. 12630 ("Government Actions and Interference with Constitutionally Protected Private Property Rights"), we have analyzed the potential takings implications of designating 2,043 ac (827 ha) of lands in Dare and Hyde Counties, North Carolina, as critical habitat for the wintering population of the piping plover in a takings implication assessment. The takings implications assessment concludes that this final designation of critical habitat does not pose significant takings implications for lands within or affected by the designation.

Federalism

In accordance with E.O. 13132 (Federalism), the rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this final critical habitat designation with appropriate State resource agencies in North Carolina. The designation of critical habitat in areas currently occupied by the wintering population of the piping plover may impose nominal additional regulatory restrictions to those currently in place and, therefore, may have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments in that the areas that contain the features essential to the conservation of the

species are more clearly defined, and the PCEs of the habitat necessary to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than waiting for case-by-case section 7 consultations to occur).

Civil Justice Reform

In accordance with E.O. 12988 (Civil Justice Reform), the regulation meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order. We are designating critical habitat in accordance with the provisions of the Act. This final rule uses standard property descriptions and identifies the physical and biological features essential to the conservation of the species within the designated areas to assist the public in understanding the habitat needs of the wintering population of the piping plover.

Paperwork Reduction Act of 1995

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

National Environmental Policy Act (NEPA)

It is our position that, outside the jurisdiction of U.S. Court of Appeals for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA (42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This position was upheld by the U.S. Court of Appeals for the Ninth Circuit (*Douglas County v. Babbitt*, 48 F.3d 1495 (9th Cir. 1995), cert. denied 516 U.S. 1042 (1996)). However, the 2004 court decision ordering us to revise the critical habitat designation also ordered us to prepare an environmental analysis of the proposed designation under the NEPA (*Cape Hatteras Access Preservation Alliance v. U.S. Department of Interior*, 344 F. Supp. 2d 108, 136 (D.D.C. 2004)). To comply with the court's order, we prepared a draft environmental

assessment under the requirements of NEPA as implemented by the Council on Environmental Quality regulations (40 CFR 1500–1508) and according to the Department of the Interior's NEPA procedures. The draft environmental assessment was based on the June 12, 2006, proposed rule (71 FR 33703), and the revised proposed rule, dated May 15, 2008 (73 FR 28084). The environmental assessment included an evaluation of the impact of the proposed designation of the four revised critical habitat units (Units NC–1, NC–2, NC–4, and NC–5) for the wintering population of the piping plover in North Carolina. The draft environmental assessment presented the purpose of and need for critical habitat designation, the No Action and Preferred alternatives, and an evaluation of the direct, indirect, and cumulative effects of the alternatives. Within the analysis was the option to designate only some of the units or some portion of the units identified in the proposed and revised proposed rules. We notified the public of the availability of the draft environmental assessment for the proposed rule in the **Federal Register** on May 31, 2007 (72 FR 30326), and of the availability of the revised draft environmental assessment for the revised proposed rule in the **Federal Register** on May 15, 2008 (73 FR 28084).

The Service has prepared a final environmental assessment and a Finding of No Significant Impact (FONSI) on the designation of four critical habitat units (Units NC–1, NC02, NC–4, and NC–5) for the wintering population of the piping plover in North Carolina. Overall, the action is likely to have only a small impact on the human environment. The action does not produce a change in the existing environment, but merely seeks to maintain the natural characteristics of the barrier islands that are important for the wintering population of the piping plover in North Carolina. The designation of critical habitat is not likely to limit activities within CAHA, PINWR, or the State-owned islands; all activities within the CAHA, PINWR, and the State-owned islands are already managed by the NPS, the Service, and the NCWRC, respectively, with a goal of balancing recreational activities with the preservation of natural resources. The designation of critical habitat would require the NPS and the Service to consider the winter habitat requirements of the piping plover when proposing actions that influence the designated units; the NCWRC would be required to consider the winter habitat requirements of the piping plover only

when Federal authorization or funding is part of their proposed action. However, since the areas to be designated as critical habitat are known to be used by the piping plover, as well as other federally listed species, the additional environmental analysis required by the designation of critical habitat for the wintering population of the piping plover in North Carolina would represent only a small increase above that required by sections 7 and 9 of the Act. The final environmental assessment and FONSI are available upon request from the Field Supervisor, Raleigh Ecological Services Field Office (see ADDRESSES) or on our Web site at http://www.fws.gov/raleigh/es_piplch.html.

Government-to-Government Relationship With Tribes

In accordance with the President's memorandum of April 29, 1994, "Government-to-Government Relations With Native American Tribal Governments" (59 FR 22951), E.O. 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206

of June 5, 1997, "American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act," we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that Tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to tribes. We have determined that there are no Tribal lands occupied at the time of listing that contain the features essential for the conservation and no Tribal lands that are unoccupied areas that are essential for the conservation of the wintering population of the piping plover in North Carolina. Therefore, critical habitat for the wintering population of the piping plover in North Carolina has not been designated on Tribal lands.

References Cited

A complete list of all references cited in this rulemaking is available upon request from the Field Supervisor, Raleigh Fish and Wildlife Office (see ADDRESSES). A complete list of all references cited in this rulemaking is available on the Internet at <http://www.regulations.gov> and http://www.fws.gov/raleigh/es_piplch.html.

Author(s)

The primary authors of this rulemaking are staff members of the Raleigh Ecological Services Field Office, Raleigh, North Carolina.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Regulation Promulgation

■ Accordingly, we amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

■ 1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Pub. L. 99–625, 100 Stat. 3500; unless otherwise noted.

■ 2. In § 17.11(h), revise the entry for "Plover, Piping" under "BIRDS" in the List of Endangered and Threatened Wildlife to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *
(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
*	*	*	*	*	*		*
BIRDS							
*	*	*	*	*	*		*
Plover, piping	<i>Charadrius melodus</i>	U.S.A. (Great Lakes, northern Great Plains, Atlantic and Gulf Coasts, PR, VI), Canada, Mexico, Bahamas, West Indies.	Great Lakes, watershed in States of IL, IN, MI, MN, NY, OH, PA, and WI and Canada (Ont.).	E	211	17.95(b)	NA
Plover, piping	<i>Charadrius melodus</i>	U.S.A. (Great Lakes, northern Great Plains, Atlantic and Gulf Coasts, PR, VI), Canada, Mexico, Bahamas, West Indies.	Entire, except those areas where listed as endangered above.	T	211	17.95(b)	NA
*	*	*	*	*	*		*

■ 3. In § 17.95(b), amend the entry for "Piping Plover (*Charadrius melodus*) Wintering Habitat" as follows:
 ■ a. Revise paragraphs 1 and 2;
 ■ b. In paragraph 3 remove the words "North Carolina (Maps were digitized using 1993 DOQQs, except NC-3 (1993 DRG))" and add in their place a new

header and parenthetical text as set forth below;
 ■ c. Revise the critical habitat description for Unit NC-1;
 ■ d. Revise the critical habitat description for Unit NC-2;
 ■ e. Revise the critical habitat description for Unit NC-4;

■ f. Revise the critical habitat description for Unit NC-5;
 ■ g. Remove the first map for "North Carolina Unit: 1" and add in its place a new map "North Carolina Unit: 1" as set forth below; and
 ■ h. Remove the second map for "North Carolina Units: 2, 3, 4, 5, & 6" and add

in its place a new map "North Carolina Units: 2, 3, 4, 5, & 6" as set forth below. The revisions read as follows:

§ 17.95 Critical habitat—fish and wildlife.

* * * * *

(b) *Birds.*

* * * * *

Piping Plover (*Charadrius melodus*) Wintering Habitat

1. The primary constituent elements of critical habitat for the wintering population of the piping plover are the habitat components that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support these habitat components. The primary constituent elements are:

(1) Intertidal sand beaches (including sand flats) or mud flats (between annual low tide and annual high tide) with no or very sparse emergent vegetation for feeding. In some cases, these flats may be covered or partially covered by a mat of blue-green algae.

(2) Unvegetated or sparsely vegetated sand, mud, or algal flats above annual high tide for roosting. Such sites may have debris or detritus and may have micro-topographic relief (less than 20 in (50 cm) above substrate surface) offering refuge from high winds and cold weather.

(3) Surf-cast algae for feeding.

(4) Sparsely vegetated backbeach, which is the beach area above mean high tide seaward of the dune line, or in cases where no dunes exist, seaward of a delineating feature such as a vegetation line, structure, or road. Backbeach is used by plovers for roosting and refuge during storms.

(5) Spits, especially sand, running into water for foraging and roosting.

(6) Saltrens, or bare sand flats in the center of mangrove ecosystems that are found above mean high water and are only irregularly flushed with sea water.

(7) Unvegetated washover areas with little or no topographic relief for feeding and roosting. Washover areas are formed and maintained by the action of hurricanes, storm surges, or other extreme wave actions.

(8) Natural conditions of sparse vegetation and little or no topographic relief mimicked in artificial habitat types (e.g., dredge spoil sites).

2. Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

3. * * *

North Carolina (Data layers defining map units 1, 2, 4, and 5 were created from GPS data collected in the field in May and June of 2005, and modified to fit the 1:100,000 scale North Carolina county boundary with shoreline (cb100sl) data layer from the BasinPro 8 data set published by the North Carolina Center for Geographic Information and Analysis, which was compiled in 1990. Other map units were digitized using 1993 DOQQs, except NC-3 which utilized 1993 DRG.)

Unit NC-1: Oregon Inlet, 485.4 ac (196.4 ha) in Dare County, North Carolina

This unit extends from the southern portion of Bodie Island through Oregon Inlet to the northern portion of Pea Island. It begins at Ramp 4 near the Oregon Inlet Fishing Center on Bodie Island and extends approximately 4.7 mi (7.6 km) south to the intersection of NC Highway 12 and Salt Flats Wildlife Trail (near Mile Marker 30, NC Highway 12), approximately 2.9 mi (4.8 km) from the groin, on Pea Island. The unit is bounded by the Atlantic Ocean on the east and Pamlico Sound on the west and includes lands from the MLLW (mean lower low water) on the Atlantic Ocean shoreline to the line of stable, densely vegetated dune habitat (which is not used by piping plovers and where PCEs do not occur) and from the MLLW on the Pamlico Sound side to the line of stable, densely vegetated habitat, or (where a line of stable, densely vegetated dune habitat does not exist) lands from MLLW on the Atlantic Ocean shoreline to the MLLW on the Pamlico Sound side. Any emergent sandbars south and west of Oregon Inlet, including Green Island and lands owned by the State of North Carolina, such as island DR-005-05 and DR-005-06, are included (not shown on map). This unit does not include the Oregon Inlet Fishing Center, NC Highway 12 and the Bonner Bridge or its associated structures, the terminal groin, or the historic Pea Island Life-Saving Station, or any of their ancillary facilities (e.g., parking lots, out buildings).

Unit NC-2: Cape Hatteras Point, 645.8 ac (261.4 ha) in Dare County, North Carolina

This unit is entirely within Cape Hatteras National Seashore and encompasses the point of Cape Hatteras (Cape Point). The unit extends south approximately 4.5 km (2.8 miles) from the ocean groin near the old location of the Cape Hatteras Lighthouse to the point of Cape Hatteras, and then extends west 7.6 km (4.7 miles) (straight-line distances) along Hatteras Cove shoreline

(South Beach) to the edge of Ramp 49 near the Frisco Campground. The unit includes lands from the MLLW on the Atlantic Ocean to the line of stable, densely vegetated dune habitat (which is not used by the piping plover and where PCEs do not occur). This unit does not include the ocean groin.

* * * * *

Unit NC-4: Hatteras Inlet, 410.0 ac (165.9 ha) in Dare and Hyde Counties, North Carolina

This unit extends from the western end of Hatteras Island to the eastern end of Ocracoke Island. The unit extends approximately 7.6 km (4.7 mi) southwest from the first beach access point at the edge of Ramp 55 at the end of NC Highway 12 near the Graveyard of the Atlantic Museum on the western end of Hatteras Island to the edge of the beach access at the ocean-side parking lot (approximately 0.1 mi south of Ramp 59) on NC Highway 12, approximately 1.25 km (0.78 mi) southwest (straightline distance) of the ferry terminal on the northeastern end of Ocracoke Island. The unit includes lands from the MLLW on the Atlantic Ocean shoreline to the line of stable, densely vegetated dune habitat (which is not used by the piping plover and where PCEs do not occur) and from the MLLW on the Pamlico Sound side to the line of stable, densely vegetated habitat, or (where a line of stable, densely vegetated dune habitat does not exist) lands from MLLW on the Atlantic Ocean shoreline to the MLLW on the Pamlico Sound side. All emergent sandbars within Hatteras Inlet between Hatteras Island and Ocracoke Island, including lands owned by the State of North Carolina such as Island DR-009-03/04 (not shown on map), are included. The unit is adjacent to but does not include the Graveyard of the Atlantic Museum, the ferry terminal, the groin on Ocracoke Island, NC Highway 12, or their ancillary facilities (e.g., parking lots, out buildings).

Unit NC-5: Ocracoke Island, 501.8 ac (203.0 ha) in Hyde County, North Carolina

This unit is entirely within Cape Hatteras National Seashore and includes the western portion of Ocracoke Island beginning at the beach access point at the edge of Ramp 72 (South Point Road), extending west approximately 3.4 km (2.1 mi) to Ocracoke Inlet, and then back east on the Pamlico Sound side to a point where stable, densely-vegetated dune habitat meets the water. This unit includes lands from the MLLW on the Atlantic Ocean shoreline to the line of stable, densely-vegetated dune habitat

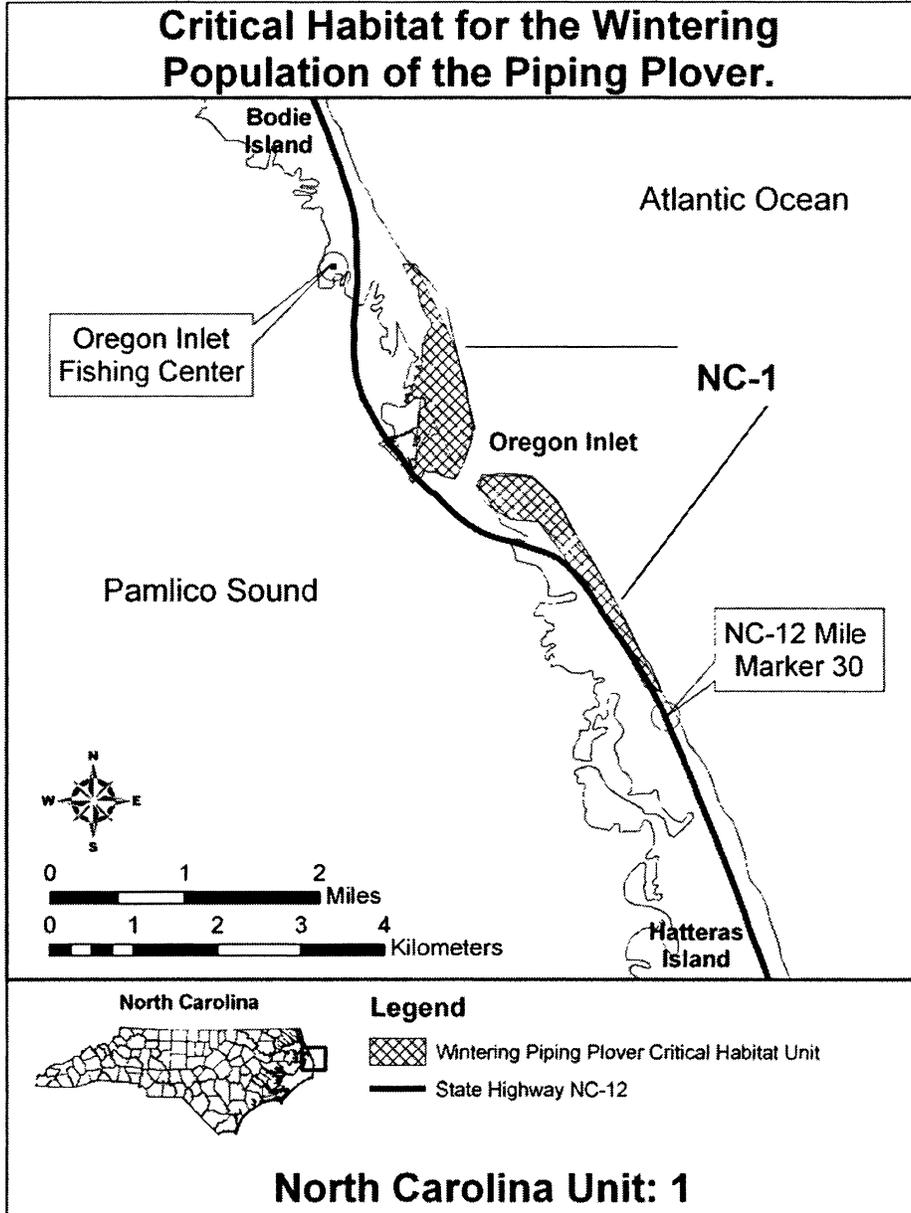
(which is not used by the piping plover and where PCEs do not occur) and from the MLLW on the Pamlico Sound side to the line of stable, densely vegetated habitat, or (where a line of stable, densely vegetated dune habitat does not

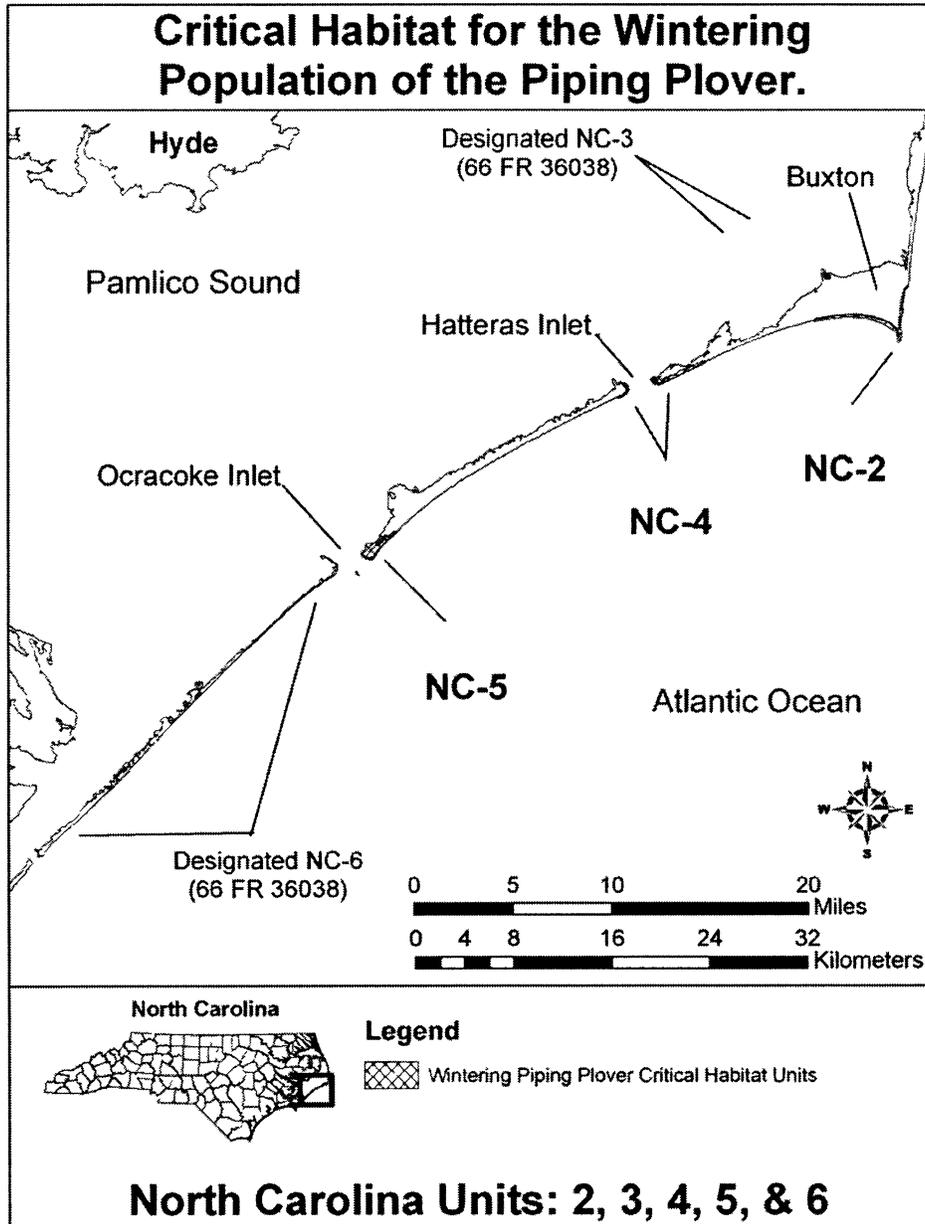
exist) lands from MLLW on the Atlantic Ocean shoreline to the MLLW on the Pamlico Sound side. All emergent sandbars within Ocracoke Inlet are also included. This unit does not include any portion of the maintained South

Point Road, NC Highway 12, or any of their ancillary facilities.

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Dated: September 24, 2008.

Lyle Laverty,
*Assistant Secretary for Fish and Wildlife and
Parks.*

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