

**From:** [Doug Wetmore](#)  
**To:** [Russ Wilson](#)  
**Cc:** [AJ North](#); [Mike Murray](#); [Jami Hammond](#); [Mike.Stevens@sol.doi.gov](mailto:Mike.Stevens@sol.doi.gov); [Bruce Peacock](#); [Patrick.Walsh@nps.gov](mailto:Patrick.Walsh@nps.gov); [JASON.WAANDERS@sol.doi.gov](mailto:JASON.WAANDERS@sol.doi.gov)  
**Subject:**  
**Date:** 11/01/2011 04:12 PM  
**Attachments:** [2011\\_11\\_01 Briefing Statement CAHA ORV Final Rule.pdf](#)  
[2011\\_11\\_01 CAHA ORV Final Rule.docx](#)  
[2011\\_11\\_01 CAHA ORV Final Rule.pdf](#)  
[2011\\_11\\_01 Communications Plan CAHA ORV Final Rule.pdf](#)  
[2011\\_11\\_01 CAHA ORV BCA Final.pdf](#)

---

Russ.






Please see the attached documents related to the final rule for off-road vehicle management at Cape Hatteras National Seashore.

- CAHA ORV final rule (pdf format and Word format)
- Briefing Statement
- Communications Plan
- Final Benefit Cost Analysis

Please let me know if you need anything else for the review and surnaming process.

Thank you.

Doug Wetmore  
National Park Service  
Natural Resource Stewardship & Science  
Environmental Quality Division  
P.O. Box 25287  
Denver, CO 80225-0287  
303.987.6955 (office)  
303.968.5214 (cell)

   
2011\_11\_01 Briefing Statement CAHA ORV Final Rule.pdf 2011\_11\_01 CAHA ORV Final Rule.docx  
   
2011\_11\_01 CAHA ORV Final Rule.pdf 2011\_11\_01 Communications Plan CAHA ORV Final Rule.pdf  
  
2011\_11\_01 CAHA ORV BCA Final.pdf

**BUREAU:** National Park Service (NPS)  
**MEMBERS:** Sen Richard Burr (R-NC), Sen Kay Hagan (D-NC), Rep Walter Jones, Jr (R-NC)  
**ISSUE:** Publication of a Final Regulation for Management of Off-Road Vehicle Use at Cape Hatteras National Seashore (Seashore)

**Key Points:**

- The NPS signed the Record of Decision (ROD) for the Seashore’s Off-Road Vehicle Management Plan / Final Environmental Impact Statement (Plan/EIS) on December 20, 2010. To implement the “selected action” described in the ROD, the NPS is amending its special regulation for the Seashore to designate routes where off-road vehicles (ORVs) may be used.
- The proposed rule for managing off-road vehicles at the Seashore was published on July 6, 2011, to be available for public comment through September 6, 2011. However, Hurricane Irene made landfall in the area of the Seashore on Saturday August 27, 2011. To accommodate those who may have been affected by the hurricane, the NPS reopened the public comment period September 9-19, 2011.
- The intended effect of the rule is to carefully manage ORV use at the Seashore to protect and preserve natural and cultural resources and natural processes, to provide a variety of visitor use experiences while minimizing conflicts among various users, and to promote the safety of all visitors.
- ORV management at the Seashore is controversial and has a high level of public and Congressional interest.

**Background:**

- Executive Order 11644 of 1972, amended by Executive Order 11989 of 1977, requires federal agencies permitting ORV use on federal lands to publish regulations designating specific trails and areas for this use. The NPS implemented these executive orders in 36 C.F.R. § 4.10, which provides that routes and areas designated for ORV use shall be promulgated as special regulations. The Seashore has not previously designated ORV routes and ORVs have been allowed to access large portions of the Seashore.
- The selected action designates 28 miles of Seashore beaches as year-round ORV routes, 13 miles as seasonal ORV routes, and 26 miles as vehicle-free areas and provides a wide variety of visitor experience opportunities while protecting federally- and state-listed shorebirds and sea turtles that nest on Seashore beaches.
- ORV and recreational fishing groups, local businesses that cater to ORV users, and the Dare and Hyde County governments are concerned about possible economic effects from ORV management that would limit ORV use to the designated routes and would close certain popular ORV routes during the shorebird and turtle breeding season. Regional and national environmental organizations are concerned that the NPS may not provide sufficient protection from human disturbance for the Seashore’s protected species. Public comments on the issue have been highly polarized.
- The socioeconomic analysis for the selected action found that the two-county region of influence would experience negligible to minor adverse impacts in the long term and that small businesses in the Seashore villages would experience negligible to moderate adverse impacts in the long term, with the potential for larger short-term impacts to specific businesses that cater most directly to ORV users. The designation of vehicle-free areas would be beneficial for pedestrians and could increase overall visitation, increasing the probability that overall revenue impacts would be at the low rather than the high end of the range.
- The selected action provides for a range of visitor experiences and includes a number of measures to mitigate potential adverse impacts to visitor access and the local economy. These include: new parking areas, pedestrian trails, interdunal routes, and ORV ramps to enhance ORV and pedestrian access; a designated year-round ORV route at Cape Point and South Point, subject to resource closures when breeding activity occurs; and pedestrian shoreline access along ocean and inlet shorelines adjacent to shorebird prenesting areas until breeding activity is observed. NPS will seek funding for an alternative transportation study and consider applications for businesses to offer beach and water shuttle services.

**Current Status:**

- The NPS received over 21,000 public comments on the proposed rule. After taking the public comments into consideration and after additional internal review, the NPS made revisions to the final rule to:
  - Clarify the definition and boundaries of the *ORV corridor*
  - Remove the requirement for an “in person” education program to allow for greater flexibility in permit issuance procedures over time
  - Clarify ORV permit and vehicle equipment requirements
  - Allow ORVs that are specially permitted to transport mobility impaired individuals to predetermined locations within certain vehicle free areas to remain on the beach
  - Clarify that commercial fishing vehicles are prohibited within resource closures and/or on lifeguarded beaches
  - Clarify that that designated ORV routes and ramps are subject to resource, safety, seasonal, and other closures
  - Allow continued ORV use of Ramp 59 until Ramp 59.5 is constructed
  - Clarify the Superintendent’s authority to implement and remove closures; better describe the criteria for establishing these closures; and add language regarding the periodic review process
  - Clarify that the Superintendent may open portions of (*wording added*) designated ORV routes in sea turtle nesting habitat to night driving from September 15 through November 15, if no turtle nests remain within these portions of ORV routes
  - Clarify that the carrying capacity measures applies to ORV routes that are open to ORV use, or to the portion of a route that is open if part of the route is closed
- The Federal Register notice for the final rule will undergo review by NPS/WASO, DOI, and then OMB before it is published.
- The Seashore is operating under a court order/consent decree until the special regulation is completed. The consent decree deadline for publishing the final regulation is currently November 15, 2011. The NPS is working with the U.S. Attorney’s Office to request from the Court an extension of the deadline, contingent upon uncertainties about NPS/WASO, DOI and OMB review time.

**Contact(s):**

Michael B. Murray, Superintendent, Cape Hatteras NS, 252-473-2111, ext. 148

Date: November 1, 2011

October 2011

# Benefit-Cost Analysis of Final ORV Use Regulations in Cape Hatteras National Seashore

Prepared for

**National Park Service**  
Environmental Quality Division  
Academy Place  
PO Box 25287  
Denver, CO 80225

Prepared by

**Carol Mansfield**  
**Ross Loomis**  
**Fern Braun**  
RTI International  
3040 Cornwallis Road  
Research Triangle Park, NC 27709

RTI Project Number 0211898.001.002

0031436

# Contents

---

Section	Page
<b>1 Introduction</b>	<b>1-1</b>
1.1 Current ORV Management and Background.....	1-1
1.2 Alternatives .....	1-2
1.2.1 No-Action Alternatives.....	1-2
1.2.3 Action Alternatives.....	1-3
<b>2 Baseline Description of Beach Use in and around Cape Hatteras National Seashore</b>	<b>2-1</b>
2.1 The Cape Hatteras Area.....	2-1
2.1.1 Cape Hatteras National Seashore.....	2-1
2.1.2 Other Parks on the Outer Banks and on the North Carolina Coast .....	2-5
2.2 ORV Routes and Areas .....	2-5
2.3 Visitation Data.....	2-5
2.3.1 Historical Visitation Trends.....	2-5
2.3.2 Distribution of Visitors and ORV Use.....	2-6
2.3.3 Visitation under No-Action Alternatives A and B.....	2-8
2.4 Alternative Locations for Beach Driving.....	2-11
2.5 Economic Activity in the Surrounding Communities....	2-11
2.5.1 Socioeconomic Resources .....	2-11
2.5.2 Demographics .....	2-12
2.5.3 Employment.....	2-19
2.5.4 Unemployment.....	2-24
2.5.5 Tourism Contributions to the Economy .....	2-24
2.5.6 Housing.....	2-26

<b>3</b>	<b>Benefit-Cost Analysis of the Alternatives</b>	<b>3-1</b>
3.1	Conceptual Basis for Benefit-Cost Analysis of Off-Road Vehicle Regulations in National Parks .....	3-1
3.1.1	Conceptual Basis for Benefit-Cost Analysis .....	3-1
3.1.2	Identifying Relevant Benefits and Costs .....	3-4
3.2	Results for the Seashore.....	3-5
3.2.1	Affected Groups.....	3-5
3.2.2	Scenarios.....	3-7
3.2.3	Benefits to Visitors and the General Public .....	3-9
3.2.4	Benefits to Businesses .....	3-200
3.2.5	Costs to Visitors .....	3-200
3.2.6	Costs to Businesses .....	3-255
3.2.7	Costs to NPS .....	3-266
3.3	Summary .....	3-322
<b>4</b>	<b>Small Entity Impact Analysis</b>	<b>4-1</b>
4.1	Identifying Small Entities .....	4-1
4.2	Certification .....	4-2
	<b>References</b>	<b>R-1</b>

# Figures

---

Number	Page
2-1 Visitation in Cape Hatteras National Seashore (1998–2010) .....	2-6
2-2 Monthly Recreational Visitation, 2007 and 2008 .....	2-10
2-3 Recreational Visitation by Month .....	2-10
2-4 2000 Population Density by Block Group .....	2-13
2-5 Percentage of Residents Born in North Carolina by Block Group, 2000 .....	2-16
2-6 1999 Per Capita Income by Block Group .....	2-18
2-7 Percentage of Population below the Poverty Line by Block Group, 2000.....	2-20
2-8 Change in Employment by Zip Code .....	2-21
2-9 Difference in Unemployment Rate from 2004–2006 Monthly Average .....	2-25
2-10 Percentage of Housing Units Vacant for Seasonal, Recreational, or Occasional Use by Block Group, 2000 .....	2-27
3-1 Interrelationship Among Market, Environmental, and Household Systems and Social Welfare .....	3-2



# Tables

---

Number	Page
2-1 Recreational Fishing in North Carolina, by Residents and Nonresidents (2006) .....	2-2
2-2 Number of Coastal Recreational Fishing Licenses Sold by North Carolina County of Sale (location where license sales agent resides), Excluding Blanket Coastal Recreational Fishing Licenses, by Calendar Year .....	2-3
2-3 Away-From-Home Wildlife Watching in North Carolina, by Resident and Nonresident .....	2-4
2-4 Estimates and Confidence Intervals for Clusters of Ramps (April to November 2009) .....	2-8
2-5 Population Statistics .....	2-14
2-6 Employment By Sector, 2000.....	2-17
2-7 Environmental Justice Statistics, 2000 .....	2-19
2-8 Nonemployers by Industry, 2007 .....	2-23
2-9 Employment Characteristics, 2009 .....	2-25
2-10 Estimated Domestic Travel Expenditures (\$2008 Millions) .....	2-26
2-11 Housing Unit Statistics, 2000 .....	2-26
2-12 Change in Housing Units .....	2-28
3-1 Affected Groups and Possible Changes in Welfare .....	3-6
3-2 Impacts of Alternatives on Visitor Experience.....	3-12
3-3 Estimates of WTP for a Beach Day .....	3-14
3-4 Impacts of Alternatives on Nonuse Value and Federally Threatened and Endangered Species (Piping Plover, Sea Turtles, and Seabeach Amaranth) .....	3-15
3-5 Vehicle Access Ramp Use and Beach Closures to ORVs for Selected Ramps in 2009 under Alternative B.....	3-244
3-6 Estimated Change in Producer Surplus for Alternative A. 3-2727	

3-7 Estimated Incremental Change in Producer Surplus for Alternatives B, C, E, and F Relative to Alternative A Mid Estimate (in millions of dollars) ..... 3-2828

3-8 Estimated Incremental Change in Producer Surplus for Alternative D Relative to Alternative A Mid Estimate (in millions of dollars) ..... 3-2929

3-9 Estimated Incremental Change in Producer Surplus for Alternative D Relative to Alternative B Mid Estimate (in millions of dollars) ..... 30

3-10 Qualitative Impacts of Alternatives C, E, and F Relative to Alternative B..... 3-311

3-11 Incremental Costs to NPS of the Action Alternatives Relative to the No Action Alternatives ..... 3-322

3-12 Qualitative Ranking of Action Alternatives Relative to No-Action Alternatives for Benefit and Cost Categories from Highest to Lowest ..... 3-333

0031442

# 1

## Introduction

This report describes the results of the benefit-cost analysis of the alternatives for regulating off-road vehicle (ORV) use in Cape Hatteras National Seashore (the Seashore). For the proposed change in regulation, the National Park Service (NPS) is required to conduct a benefit-cost analysis of the regulation and an analysis of the impact of the regulation on small businesses under the Regulatory Flexibility Act (RFA) of 1980. Following a description of current ORV management and alternatives, this report presents baseline information about the Seashore and the current state of ORV activity. From this baseline, an economic impact analysis for the local economy and a benefit-cost analysis of the new regulation were developed as well as an analysis of the impact of the new regulation on small businesses.

---

### 1.1 CURRENT ORV MANAGEMENT AND BACKGROUND

Late in 1952 agreement was reached on the final boundaries of the Seashore area and in December 1952 the state-owned lands in the Seashore were transferred to the United States. In January 1953, NPS Director Wirth recommended that Secretary of the Interior Oscar L. Chapman approve an order, consistent with Section 4 of the Act of August 17, 1937, directing that certain lands on the Outer Banks of North Carolina be “administered, protected, and developed by the National Park Service for national seashore recreational purposes for the benefit and enjoyment of the people.” This order, dated January 12, 1953, marked the formal establishment of the Seashore (NPS 2007). Since the 1970’s, ORVs have been managed under various plans but these plans have never been

finalized and published as rules. Throughout the last few decades, use of vehicles in the Seashore has increased. The regulations governing NPS require a special regulation to authorize driving on the beach (Executive Orders 11644 and 11989 and 36 CFR 4.10).

As a first step toward instituting a special regulation to manage ORV use, NPS issued the Interim Protected Species Management Strategy (Interim Strategy) in 2006 to manage ORV use while NPS developed a long-term plan. NPS was sued over the Interim Strategy in 2007. The parties negotiated the consent decree, which went into effect in April 2008. The consent decree provides more protection for breeding birds and nesting turtles with larger required buffers around nests and a prohibition on night driving between 10:00 pm and 6:00 am.

As part of the NEPA planning process, NPS developed a set of alternatives for management of ORVs in the Seashore. In March 2010, the NPS published a Draft Environmental Impact Statement (DEIS) that included two no-action alternatives (the Interim Strategy and the consent decree) and four action alternatives, identifying Alternative F as the NPS preferred alternative. After a period of public comment and review, the NPS published the Final EIS (FEIS, NPS 2010) in November 2010 and included revisions to Alternative F based on public and agency comments received on the DEIS. The Record of Decision (ROD) documenting the choice of Alternative F as the Selected Action was signed December 20, 2010. The NPS developed a proposed regulation based on the Selected Action and published this proposed regulation on July 6, 2011, for public comment.

---

## **1.2 ALTERNATIVES**

### **1.2.1 No-Action Alternatives**

NPS has developed two no-action alternatives. The FEIS (NPS 2010) describes these alternatives as follows:

*Alternative A—No Action: Continuation of Management under the Interim Protected Species Management Strategy.* Under this no-action alternative, management of ORV use and access at the Seashore would be a continuation of management based on the Interim Strategy and the Superintendent's Compendium 2007, as well as elements from the 1978 draft interim ORV

management plan that were incorporated in Superintendent's Order 7. The Interim Strategy provides direction on the how, when, and where closures and buffers for federally listed species are established and the size of buffers/closures. Buffer sizes for non-listed species allow some degree of flexibility and management discretion. There would be no restriction on night driving or carrying capacity established under Alternative A and an ORV permit would not be required. All the ocean and inlet shoreline and existing soundside routes would be designated as a ORV route or area and would be open 24 hours a day year-round, but subject to temporary resource closures, seasonal ORV closures in front of the villages, and temporary ORV safety closures.

*Alternative B—No Action: Continuation of Terms of the Consent Decree Signed April 30, 2008, and Amended June 4, 2009.*

Under Alternative B, management of ORV use would follow the terms described under Alternative A, except as modified by the provisions of the consent decree, as amended. Modifications in the consent decree include earlier and more frequent monitoring at key nesting areas and larger, nondiscretionary resource protection buffers when breeding activity is observed. These modifications would result in earlier, larger, and longer-lasting ORV and pedestrian closures than Alternative A. Alternative B would also prohibit night driving from 10:00 p.m. to 6:00 a.m. May 1 through September 15 and would allow night driving with a permit from September 16 through November 15. No carrying capacity would be established or ORV use permit required under Alternative B, except for the night-driving permit from September 16 through November 15.

### 1.2.3 Action Alternatives

NPS developed four action alternatives. The action alternatives are described in the FEIS (NPS 2010) as follows:

Elements that are common to all action alternatives include the following:

- ORV routes and areas would be officially designated in accordance with the Executive Orders.
- Year-round ORV routes and areas would be designated only in locations without sensitive resources or high pedestrian use.

- Year-round vehicle free areas (VFAs) would be designated.
- “Desired Future Conditions” would be established, as well as a system for periodic review and adaptive management initiatives.
- Night-driving restrictions would be in effect from May 1 through November 15, which corresponds with turtle nesting season.
- ORV permits would be required and would involve a fee and education requirement.
- Overcrowding would be addressed using various methods for establishing carrying capacity.
- New vehicular access points and/or new or expanded parking areas would be identified.
- Commercial fishing vehicles would be exempted from some ORV restrictions, when not in conflict with resource protection.

*Alternative C—Seasonal Management.* Alternative C would provide visitors to the Seashore with a degree of predictability regarding areas available for ORV use, as well as vehicle-free areas, based largely on the seasonal resource and visitor use characteristics of various areas in the Seashore. Both seasonal and year-round ORV routes would be established, although most areas would have a seasonal focus. Species Management Areas and village beaches would be closed to ORV use from March 15 through October 14. Pedestrians would be able to access some Species Management Areas depending on specific shorebird breeding activity. Most of the seasonal ORV areas would be open to ORVs from October 15 through March 14. Seasonal night-driving restrictions would be established between the hours of 7:00 p.m. and 7:00 a.m. from May 1 through November 15. An ORV carrying capacity would be established using a maximum number of vehicles per mile of beach area.

*Alternative D—Increased Predictability and Simplified Management.* Alternative D is the Environmentally Preferable Alternative. Under Alternative D, visitors to the Seashore would have the maximum amount of predictability regarding areas available for ORV use and vehicle-free areas (VFA) for pedestrian use. Restrictions would be applied to larger areas over longer periods of time to minimize changes in designated ORV and VFAs over the course of the year. To provide

predictability under this alternative, only year-round ORV routes would be designated. Year-round VFAs would include all of the Species Management Areas and village beaches. Species Management Areas would be closed to pedestrian use during the breeding season. Seasonal night-driving restrictions would be established between the hours of 7:00 p.m. and 7:00 a.m. from May 1 through November 15. An ORV carrying capacity would be addressed solely by the use of vehicle stacking limits (one vehicle deep).

*Alternative E—Variable Access and Maximum Management.*

Alternative E would provide use areas for all types of visitors to the Seashore with a wide variety of access for both ORV and pedestrian users, but often with controls or restrictions in place to limit impacts on sensitive resources. Interdunal road and ramp access would be improved, and more pedestrian access would be provided through substantial additions to parking capacity at various key locations that lend themselves to walking on the beach. This alternative would close the Species Management Areas to ORV use from March 15 through August 31, except that two spits and Cape Point would have initial ORV access corridors during the breeding season, with increased species monitoring in those areas. These ORV access corridors would close when breeding activity is observed. North Ocracoke Spit would be designated as a VFA year-round under Alternative E, and village beaches would be closed to ORV use between April 1 and October 31. A seasonal night-driving restriction would be established from 10:00 p.m. to 6:00 a.m. during turtle nesting season, although areas with low densities of turtle nests could open to night driving from September 16 through November 15. This alternative would offer a park-and-stay overnight option for ORVs at some spits and Cape Point during the turtle nesting season. Self-contained vehicle camping would be allowed during the off-season at designated Seashore campgrounds under the terms of a permit. Alternative E would provide enhanced options for pedestrian access to Bodie Island Spit and South Point Ocracoke by promoting water taxi service when those areas are closed to ORVs.

*Alternative F—NPS Preferred Alternative.*

The NPS considered a variety of concepts and measures that either originated during the negotiated rulemaking process from members of the negotiated rulemaking advisory committee (Committee) or were discussed during Committee,



subcommittee, or work group sessions. Although the Committee as a whole did not reach a consensus on a recommended alternative, in creating this action alternative the NPS made management judgments as to which combination of concepts and measures would make an effective overall ORV management strategy. This alternative is designed to provide visitors to the Seashore with a wide variety of access opportunities for both ORV and pedestrian users. Alternative F would provide a reasonably balanced approach to designating ORV routes and vehicle-free areas (VFAs) and providing for the protection of park resources. To support access to both VFAs and designated ORV routes, alternative F would involve the establishment of new parking areas, pedestrian access trails, ORV ramps, and improvements and additions to the interdunal road system. From September 15 to November 15, ORV routes with no turtle nests remaining would reopen for night ORV use, subject to terms and conditions of the ORV permit. Alternative F would provide for an alternative transportation study and would encourage the establishment of a beach shuttle or water taxi.

# 2

## Baseline Description of Beach Use in and around Cape Hatteras National Seashore

Cape Hatteras is the nation's first national seashore. Consisting of more than 30,000 acres distributed along approximately 67 miles of shoreline, the Seashore is part of a dynamic barrier island system. It is located within Dare and Hyde Counties in North Carolina.

Section 2 describes the Seashore and the surrounding area, information about visitors, information about the population of Dare and Hyde counties, and information about the economy of the region. Much of the text in this section is taken from the FEIS (NPS 2010).

---

### 2.1 THE CAPE HATTERAS AREA

The Outer Banks offer some of the best beaches in the U.S., and beach-related tourism drives the economy of the area. Local residents also receive significant recreational benefits from the area's natural assets. In addition to the Seashore, the area includes Jockey's Ridge State Park and Pea Island National Wildlife Refuge.

#### 2.1.1 Cape Hatteras National Seashore

The Seashore serves as a popular recreation destination with more than 2.1 million visitors in 2008 (NPS, 2008), showing an 8-fold increase in visitation since 1955 (NPS, 2007). Seashore visitors participate in a variety of recreational activities, including beach recreation (sunbathing, swimming, shell collecting), fishing (surf and boat), hiking, hunting, motorized

boating, nonmotorized boating (sailing, kayaking, canoeing), nature study, photography, off-road vehicle use (beach driving), shellfishing, sightseeing, watersports (surfing, windsurfing, kiteboarding), and wildlife viewing. Seashore visitors use ORVs for traveling to and from swimming, fishing, and surfing areas and for pleasure driving. Two categories of outdoor recreation pertinent to the assessment of alternative management plans, recreational fishing and bird watching, are discussed further below using data from the National Survey of Fishing, Hunting, and Wildlife-Associated Recreation (FHWAR).

North Carolina is the sixth most popular state for fishing, with an estimated 1.3 million residents and nonresidents participating in 2006 (U.S. Department of the Interior et al., 2008). Recreational fishing is a significant part of North Carolina's economy, attracting spending from both local and out-of-state anglers. Approximately 519,000 anglers in North Carolina engaged in saltwater fishing in 2006 (Table 2-1). Expenditures from fishing trips totaled an estimated \$692,977,000 in 2006, with \$450,313,000 coming from saltwater anglers. Although only 40 percent of anglers reported participating in saltwater fishing, nearly 65 percent of all trip-related expenditures went toward this activity.

**Table 2-1. Recreational Fishing in North Carolina, by Residents and Nonresidents (2006)**

	Resident	Nonresident	Total
Total participants	868,000	395,000	1,263,000
Percent of total participants	69%	31%	100%
Saltwater	253,000	266,000	519,000
Percent of total saltwater participants	49%	51%	100%
Total trip-related expenditures	\$395,296,000	\$297,681,000	\$692,977,000
Average trip-related expenditures per participant	\$456	\$753	\$549

Source: U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2008. "2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation." <http://www.census.gov/prod/www/abs/fishing.html>.

Nonresident angler expenditures are important to regional economic impacts, because they represent an addition to area wealth rather than a change in the mix of spending by residents. Nonresidents make up only 31 percent of all anglers

in North Carolina but comprise 51 percent of saltwater anglers. Nonresidents, who often must pay greater lodging and transportation fees, spend an average of 65 percent more than residents for trip-related expenditures over all types of fishing.

Dare and Hyde counties sold 40 percent of coastal recreational fishing licenses within the eight coastal counties in North Carolina and 18 percent of all coastal recreational fishing licenses in 2008. Dare County ranks first among all North Carolina counties in coastal recreational fishing license sales (Table 2-2).

**Table 2-2. Number of Coastal Recreational Fishing Licenses Sold by North Carolina County of Sale (location where license sales agent resides), Excluding Blanket Coastal Recreational Fishing Licenses, by Calendar Year**

County	2007	2008
Dare	93,225	82,635
Hyde	6,322	5,358
Brunswick	38,721	33,303
Carteret	46,813	38,456
Currituck	2,660	2,435
New Hanover	34,556	28,558
Onslow	16,098	15,185
Pender	17,462	14,733
Total	469,521	411,886

Source: North Carolina Marine Fisheries, North Carolina Wildlife Resources Commission. 2009. "Coastal Recreational Fishing License Sales Update." [http://www.ncfisheries.net/CRFL/downloads/CRFLSalesReportMay\\_31\\_2009.pdf](http://www.ncfisheries.net/CRFL/downloads/CRFLSalesReportMay_31_2009.pdf).

Among all states, North Carolina ranks nineteenth for number of wildlife watchers, with 2,641,000 participants in 2006. Wildlife watching is classified as activities for which wildlife watching is the primary purpose and does not include trips to zoos or museums or accidental observation of wildlife. Wildlife watchers may be feeding, photographing, or observing wildlife.

Approximately 15 percent of wildlife watchers in North Carolina were nonresidents in 2006.

Away-from-home wildlife watching is defined as wildlife observation occurring at least 1 mile from home. Table 2-3 presents information about away-from-home wildlife watching in North Carolina. In 2006, among away-from-home wildlife watchers in North Carolina, approximately 56 percent are

nonresidents. Away-from-home bird watchers made up 620,000 or 90 percent of all away-from-home wildlife watchers. Of these, 50 percent reported watching "other water birds." This category includes shorebirds, cranes, herons, and all other water birds not classified as waterfowl and serves as the best representation of birds on Cape Hatteras. Among wildlife watchers observing "other water birds," nonresidents made up 69 percent of participants. Thus, wildlife watching for birds like those on Cape Hatteras is far more likely to be enjoyed by nonresidents than other wildlife watching.

**Table 2-3. Away-From-Home Wildlife Watching in North Carolina, by Resident and Nonresident**

	Resident	Nonresident	Total
Total away-from-home participants	300,000	386,000	686,000
Percentage of total participants	44%	56%	100%
Total away-from-home birders	284,000	336,000	620,000
Total birders	46%	54%	100%
Away-from-home "other water bird" observers	95,000	215,000	310,000
Percentage of "other water bird" observers	31%	69%	100%
Total trip-related expenditures	\$84,245,000	\$162,662,000	\$246,906,000
Average trip-related expenditure per participant	\$281	\$421	\$360

Source: U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2008. "2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation." <http://www.census.gov/prod/www/abs/fishing.html>.

Wildlife watchers in North Carolina spent a total of \$246,906,000 in trip-related costs in 2006. This number includes food, lodging, transportation, rented equipment, and guide or permit fees, but not expenditures on purchased equipment. Away-from-home resident wildlife watchers spent an average of \$281 per person per trip, while nonresident participants spent \$421. Although separate expenditure data for other water bird watchers were not available, other water birds such as shorebirds are more likely to attract out-of-state wildlife watchers, who then spend on average 50 percent more than resident wildlife watchers.

### **2.1.2 Other Parks on the Outer Banks and on the North Carolina Coast**

In addition to the Seashore, the Outer Banks are home to Jockey's Ridge State Park (Park), located in Nags Head. Jockey's Ridge is the tallest naturally formed sand dune system on the East Coast. The Park provides opportunities for hiking, hang-gliding, sand-boarding in the dunes or kayaking, windsurfing, and swimming in the Roanoke Sound.

Located on the north end of Hatteras Island is the Pea Island National Wildlife Refuge, a 5,834 land acre and 25,700 water acre preserve established in 1937. Visitors to Pea Island can hike, fish, kayak, or watch wildlife.

Cape Lookout National Seashore, authorized in 1966, is located south of Cape Hatteras National Seashore. Activities in the 56-mile long seashore include the Cape Lookout lighthouse, fishing, bird or wild horse watching, waterfowl hunting, camping, swimming, boating, and shelling.

Like Cape Hatteras, Cape Lookout allows driving on the beach. However, Cape Lookout can only be reached by ferry and visitation is much lower than at Cape Hatteras.

---

## **2.2 ORV ROUTES AND AREAS**

As discussed in Section 1, ORVs are currently managed under the Consent Decree (see Section 1.1.2).

---

## **2.3 VISITATION DATA**

Many different factors cause visitation to vary across years, so a single year may not provide a reliable estimate of average future visitation. Because each no-action alternative has been in place for a limited amount of time, we do not have a long history with which to estimate average visitation. ORV use in the Seashore was managed under Alternative A, the Interim Strategy, in 2006-2007 and the beginning of 2008, and under the Consent Decree since April 30, 2008. As a result, we use data from other sources to assess visitation under the no-action alternatives.

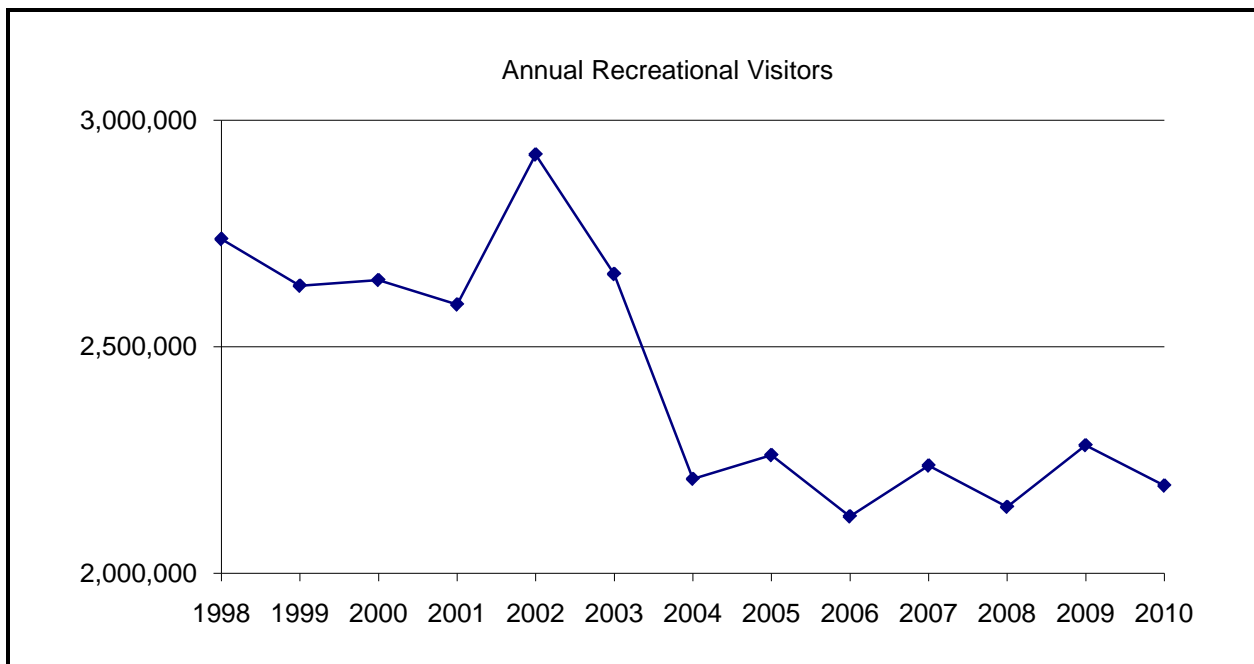
### **2.3.1 Historical Visitation Trends**

The Seashore does not have a defined entry point where the number of visitors can be counted. Instead, NPS constructs recreational visitor estimates using counts from several

sources, including a highway counter on Highway 12 at Whalebone Junction that counts traffic heading south toward the Seashore, the number of registered hunters, aircraft at Ocracoke and Hatteras islands, vehicles arriving by ferry to Ocracoke from the mainland (Swans Quarter and Cedar Island), and the number of overnight boats. In 2009, the Whalebone Junction traffic counter accounted for 90 percent of the total visitation. The Seashore also reports the number of visitors in the Seashore campgrounds, in visitor centers, and at the lighthouse; however, these values are not included in the recreational visitor counts.

Visitation at the Seashore, as represented by the official visitation statistics, averaged 2,470,411 from 1998 to 2008 from a high of 2,923,894 in 2002 to a low of 2,125,005 in 2006. Figure 2-1 graphs visitation at the Seashore over a 12-year period. Total visitation was 2,193,292 in 2010.

**Figure 2-1. Visitation in Cape Hatteras National Seashore (1998–2010)**



Source: <http://www.nature.nps.gov/stats/park.cfm?parkid=171>

### 2.3.2 Distribution of Visitors and ORV Use

Previous attempts to quantify the number of vehicles have not generated reliable data. To provide data for this study, NPS contracted with RTI International to undertake a count of vehicles using the beach access ramps in the Seashore.

Between April 2009 and March 2010, RTI counted vehicles at a random sample of ramps to estimate the total ORV trips taken on the beach.

Weeks for counting at ramps were sampled sequentially with probability proportional to size (the number of rental homes occupied by nonowners) and with minimum replacement. To include more than one 3-day counting trip over the low season, December through March, the sample was stratified into low season (December through March) and shoulder/high seasons (April through November).

The data collected through the survey yielded an estimate of 344,999 vehicle trips on the beach in the Seashore between April and November 2009 with a 95 percent confidence interval ranges from 285,696 vehicle trips to 405,302 vehicle trips. The estimate of passengers is 768,948 passengers with a 95 percent confidence interval of 625,928 passengers to 911,968 passengers. SUDANN software, developed by RTI, was used to incorporate the sample weights into the estimate of the mean and 95 percent confidence interval.

Between December 2009 and March 2010, the estimate was 154,803 vehicle trips containing 225,656 passengers used the beach access ramps. The small sample size of counting trips during this season resulted in very large 95 percent confidence intervals around this number. The 95 percent confidence interval ranges between 0 vehicle trips to 392,594 vehicles and 0 passengers to 567,184 passengers.

Table 2-4 provides estimates and confidence intervals for groups of ramps. The ramps on Bodie Island, Ramps 2 and 4, account for approximately 23 percent of vehicle trips and passengers.

The numbers from the study apply to no-action Alternative B. The study was done in 2009 and 2010, when the Consent Decree was in place. It does not provide us information about the quantity of vehicle trips under no-action Alternative A.



**Table 2-4. Estimates and Confidence Intervals for Clusters of Ramps (April to November 2009)**

Ramps	Vehicle Trips			Passengers		
	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
2, 4	78,550	35,149	121,950	174,949	77,174	272,725
23, 27, 30	49,273	16,596	81,950	112,702	39,863	185,542
34, 38	48,778	13,214	84,341	103,171	30,092	176,250
43, 44, 45	51,277	11,277	91,277	117,030	17,262	216,797
49, 55	52,318	13,358	91,278	123,355	26,888	219,822
59, 67	20,447	4,356	36,538	45,152	9,824	80,480
68, 70, 72	44,358	14,090	74,625	92,588	29,933	155,243

### 2.3.3 Visitation under No-Action Alternatives A and B

Management of ORVs in the years 2007 and 2008 corresponded to the Interim Strategy and the Consent Decree, respectively. With only one year of experience under each management approach, it is difficult to separate the impact of the new management plan for ORVs from other impacts on visitation. Gas prices began increasing sharply in April 2008 just as the Consent Decree was put in place, and the high prices lasted through the summer. At the same time, the national and international economy worsened throughout 2008, and the decline accelerated in the fall of 2008 and into 2009.

Although we cannot say definitively that the Interim Strategy or the Consent Decree resulted in a specific level of visitation in 2007 or 2008, we can look at the data we have to see how various measures of visitation in the years 2007 and 2008 compare to the historical trend. Taking into account events that may have an impact on visitation, we can also forecast whether visitation might be much higher or much lower than what we observed in 2007 and 2008. Events might include hurricanes, special events on the Outer Banks, the economy, and how much of the beach was open for various activities. Over time, other factors will affect visitation such as available housing and motel space, ease of travel to and from the Outer Banks, the quality of the environment and the beaches, new recreation

activities, and the development or decline of other competing beach areas.

To create the range of visitation levels under baseline, we compared visitation in 2009 and 2010 to other parks and attractions and to historic trends. We also incorporated information from publically available sources on sales of different items and information from a survey of real estate companies on Hatteras Island about occupancy rates for rental housing. These comparisons provide a basis for our assumptions about baseline visitation.

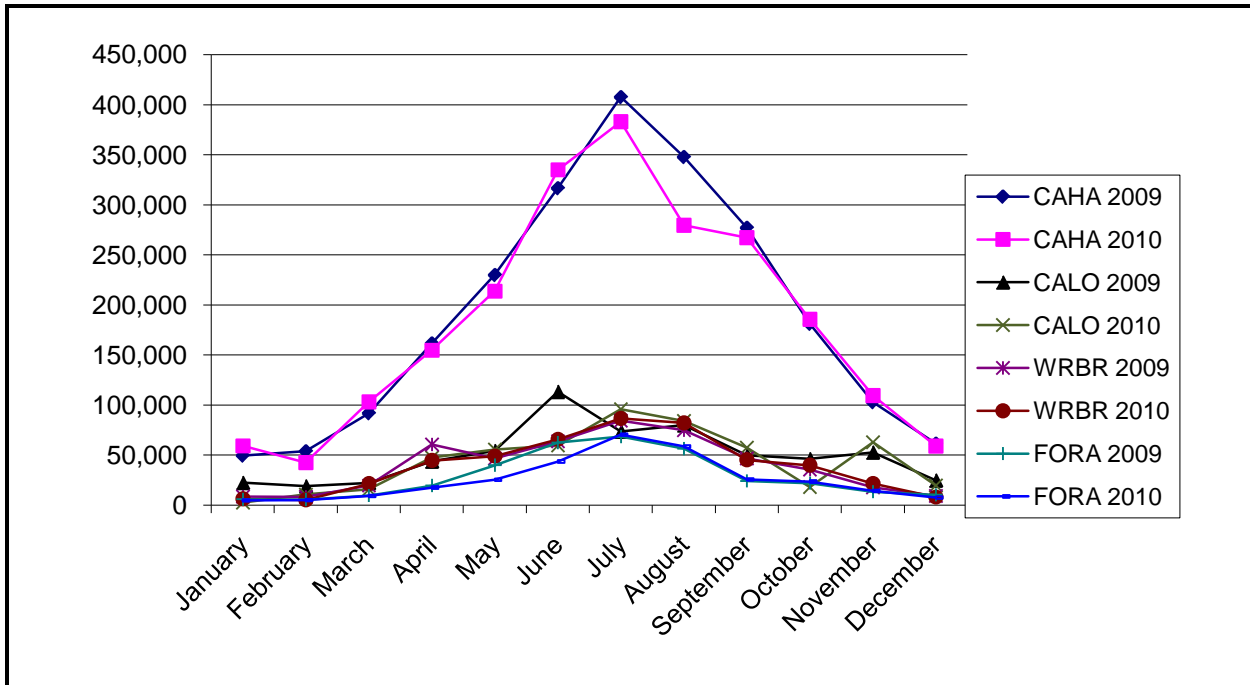
Figure 2-2 provides a month-by-month breakdown of visitation for recreational visits in the Seashore for 2009 and 2010.<sup>1</sup> For comparison, we also report visitation at three other National Park Units: the Wright Brothers Memorial (WRBR) and Fort Raleigh (FORA) on the Outer Banks and Cape Lookout, which is the next island south of Ocracoke. Total visitation decreased from 2009 to 2010 for all sites excluding WRBR, where visitation remained the same. Cape Lookout experienced the most drastic change, with visitation falling 12 percent. In FORA and the Seashore, the number of recreational visitors fell 10 percent and 4 percent, respectively.

Figure 2-3 compares average monthly visitation at the Seashore between 2006 and 2010 to average monthly visitation between 1997 and 2005, before the Seashore implemented the Interim Strategy. Average visitation from 2006 to 2010 was lower than the average visitation from 1997 to 2005. Visitation fell the most from May to December, with late winter and early spring visitation rates remaining fairly constant. Total visitation decreased about 15 percent from the 1997 to 2005 average to the 2006 to 2010 average.

---

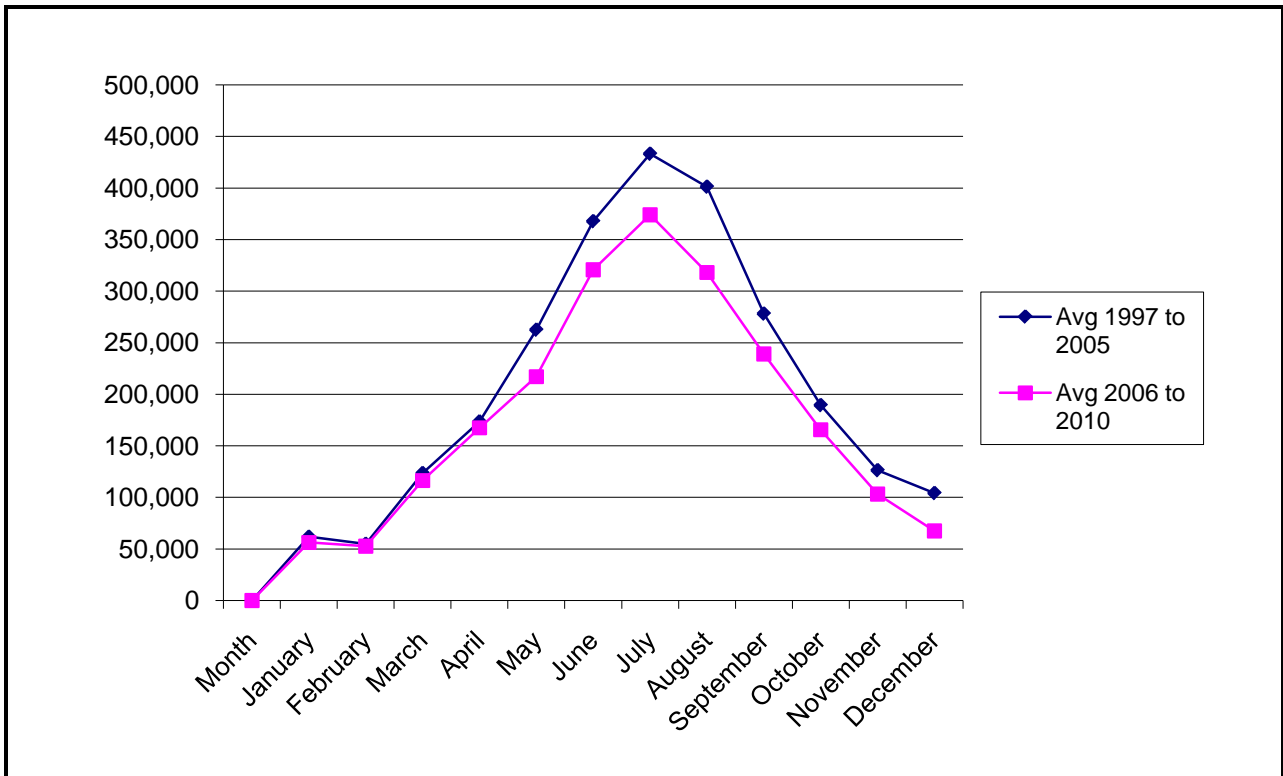
<sup>1</sup> A recreational visit is defined as the “entry of a person onto lands or waters administrated by NPS for recreational purposes” (NPS 1999). Recreational visits do not include “non-recreational” visits (defined as “through traffic, trades people with business in the park, and government personnel [including NPS employees] with business in the park”) (NPS 1999).

Figure 2-2. Monthly Recreational Visitation, 2009 and 2010



Source: <http://www.nature.nps.gov/stats>

Figure 2-3. Recreational Visitation by Month at the Seashore



Source: <http://www.nature.nps.gov/stats/park.cfm?parkid=171>

## 2.4 ALTERNATIVE LOCATIONS FOR BEACH DRIVING

---

*In addition to the Seashore, the North Carolina coast includes other beaches that offer beach driving opportunities.*

---

The Cape Hatteras area has several alternative locations for beach driving. In Nags Head (with purchase of a permit) and Kill Devil Hills, beach driving is permitted from October through April. Year-round beach driving is allowed in Corolla north of Highway 12.

In addition to the Seashore, the North Carolina coast includes other beaches that offer beach driving opportunities. As mentioned above, beach driving is allowed on Cape Lookout. Further south, beach driving is allowed in select areas of the Crystal Coast with the purchase of a permit. Year-round beach driving is permitted in Atlantic Beach. During the off season, beach driving is permitted on Emerald Isle and in the Indian Beach/Salter Path area.

---

## 2.5 ECONOMIC ACTIVITY IN THE SURROUNDING COMMUNITIES

### 2.5.1 Socioeconomic Resources

This section describes the social and economic environment that potentially would be affected by implementing the alternatives. The social and economic environment of a region is characterized by its demographic composition, the structure and size of its economy, and the types and levels of public services available to its citizens.

The socioeconomic environment evaluated for this benefit cost analysis encompasses the Outer Banks portion of two counties in North Carolina—Dare and Hyde. Hatteras and Bodie islands are part of Dare County and Ocracoke Island is within Hyde County. This area contains 13 zip codes, 18 of the 19 block groups in Dare County, and 1 of the 4 block groups in Hyde County.<sup>2</sup>

The Outer Banks portion of Dare and Hyde counties (Figure 2-1) forms the economic region of influence (ROI) and defines the geographic area in which the predominant social and economic impacts from the alternatives are likely to take place. The towns Ocracoke, Hatteras, Frisco, Avon, Buxton,

---

<sup>2</sup> Census block groups generally contain between 300 and 3,000 people.

Salvo, Waves, and Rodanthe will be most affected by the proposed actions because they are located within the Seashore. The largest towns within the ROI include Nags Head, Kill Devil Hills, and Kitty Hawk, which are located on Bodie Island north of the Seashore.

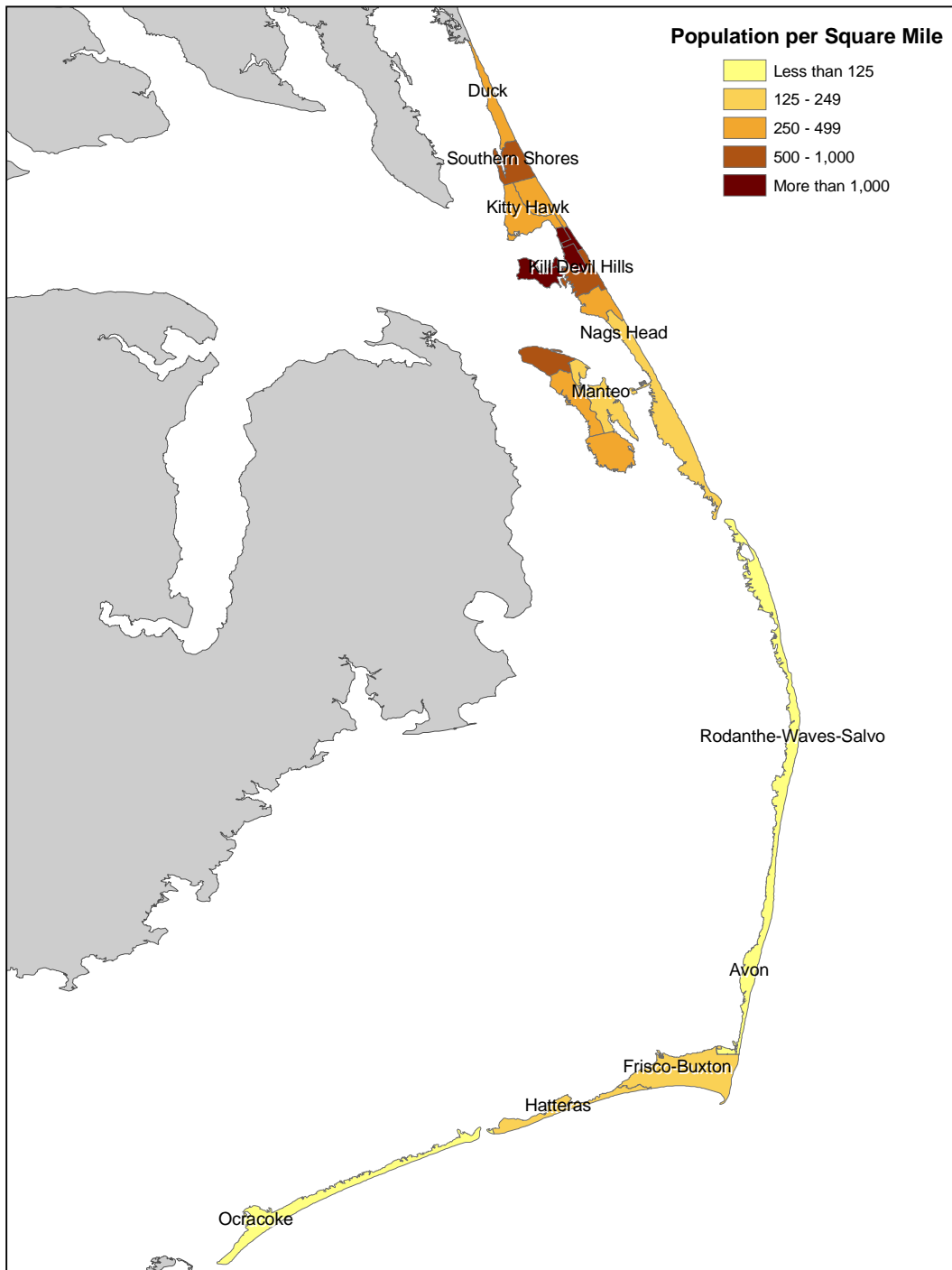
### **2.5.2 Demographics**

The economic ROI is primarily rural in character, although portions of Dare County, especially in the north, are developed with large tracts of vacation homes and small businesses that support the area's robust tourism industry. Much of Dare County's permanent population also resides in this area, the most densely populated portion of the ROI (Figure 2-4). Note that data presented are often taken from the U.S. Census Bureau. The census places people according to "usual residence" guidelines, so people are counted where they live most of the year.

In recent years, population trends have differed substantially for Dare and Hyde counties. Table 2-5 provides population statistics for the state of North Carolina, Dare and Hyde counties and the Dare and Hyde county block groups located on the Outer Banks. Between 2000 and 2008, Dare County's population grew 12 percent, from 29,967 to 33,584. This is a slightly lower percentage change in population than the state of North Carolina as a whole. However, the portion of the state population occupying Dare County remained 0.4 percent. During this same time period, the population of Hyde County decreased by 11 percent, from 5,826 to 5,181 (U.S. Census Bureau, 2008c), lowering the portion of the state population occupying Hyde County from 0.07 percent to 0.06 percent. The Dare County block groups within the ROI account for 96 percent of Dare County's population, while the Hyde County block group represents only 13 percent of Hyde County's population (U.S. Census Bureau, 2000a).

According to population projections published by the North Carolina Office of State Budget and Management's State Demographics unit, the state and Hyde County population trends are expected to continue into the foreseeable future, while Dare County is projected to lose residents. By 2029, population in Dare County is projected to decrease to 26,053, a 13 percent reduction relative to 2000. The population of Hyde County is expected to fall further to 4,717, a 19 percent

Figure 2-4. 2000 Population Density by Block Group



Source: Environmental Systems Research Institute, Inc. 2002. "2000 Census Block Groups: NC." [CD-ROM]. ESRI Data & Maps 2002.

decrease relative to 2000 (Office of State Budget and Management North Carolina, 2009).

**Table 2-5. Population Statistics**

Geographic Area	2000 <sup>a</sup>	2007 <sup>b</sup>	2015 <sup>c</sup>	2029 <sup>c</sup>	Percentage Change, 2000–2007	Percentage Change, 2000–2029
North Carolina	8,049,313	9,222,414	10,429,282	12,769,797	15%	59%
Dare County	29,967	33,584	31,225	26,053	12%	–13%
Dare County block groups <sup>d</sup>	28,798	—	—	—	—	—
Hyde County	5,826	5,181	5,256	4,717	–11%	–19%
Hyde County block group <sup>e</sup>	730	—	—	—	—	—

Sources:

<sup>a</sup>U.S. Census Bureau. 2000a; generated by RTI International; using American FactFinder; “Census 2000 Summary File 3 (SF3)—Sample Data” <http://factfinder.census.gov>. (December 5, 2008).

<sup>b</sup>U.S. Census Bureau, Population Division. 2009. “Annual Estimates of Resident Population Change for Counties of North Carolina and County Rankings: April 1, 2000 to July 1, 2008 (CO-EST2008-POPCHG2000\_2008-37).” <http://www.census.gov/popest/estimates.php>.

<sup>c</sup>North Carolina Office of State Budget and Management. 2009. “Projected Annual County Population Totals.” [http://www.osbm.state.nc.us/ncosbm/facts\\_and\\_figures/socioeconomic\\_data/population\\_estimates.shtm](http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates.shtm).

<sup>d</sup>The 18 Dare County block groups in the ROI.

<sup>e</sup>The one Hyde County block group in the ROI.

Demographic and economic trends during the last 3 decades have contributed to growing differences in the population characteristics and income levels in the different areas of the ROI. The rate of change is especially rapid in northern Dare County, where a smaller percentage of residents were born in North Carolina, shown in Figure 2-5.

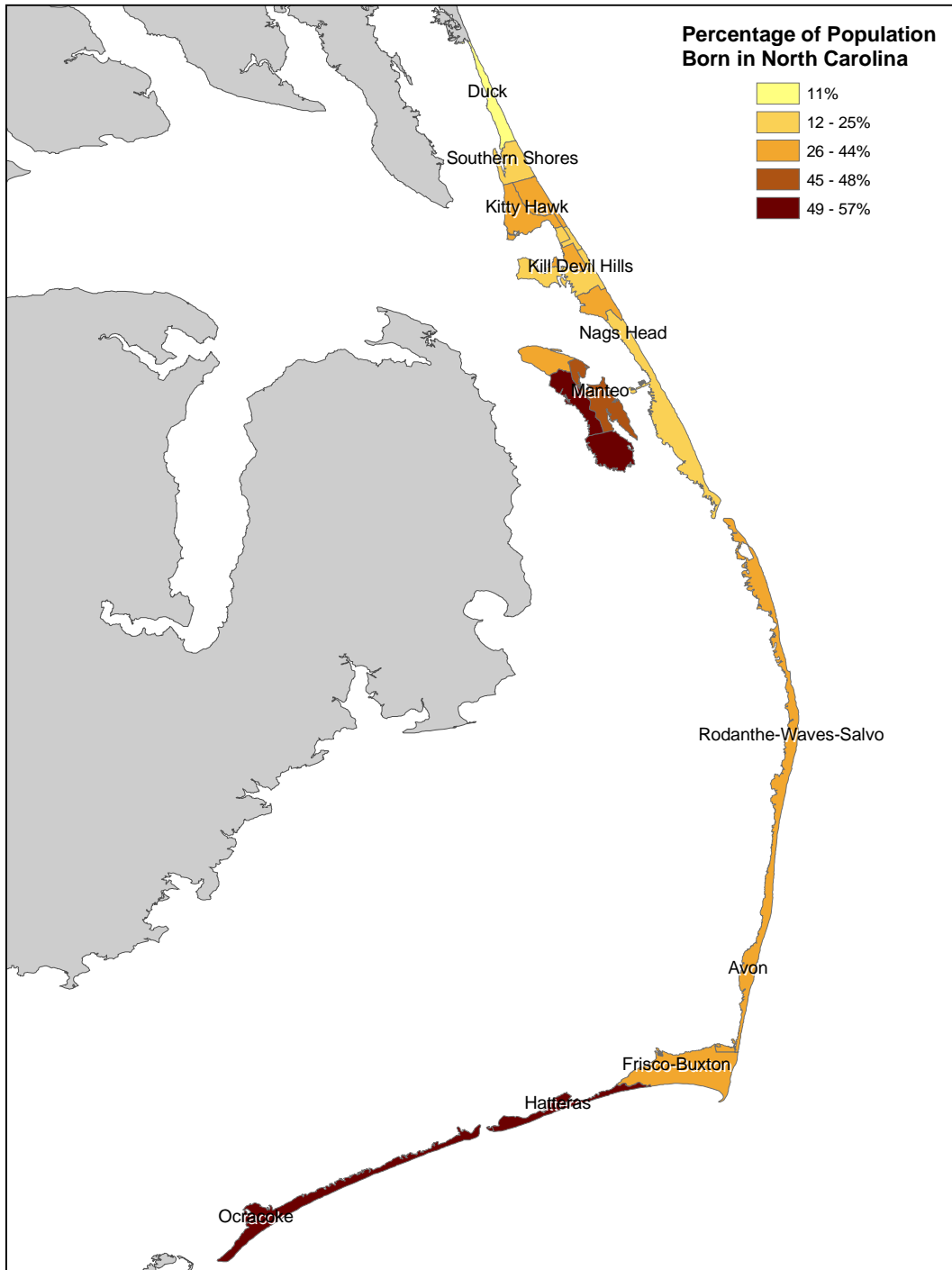
In 1999, the areas within the ROI had a 13 percent greater per capita income than North Carolina as a whole and 6 percent greater than the country as a whole (Table 2-6). This distribution varies across the ROI. Ocracoke, southern Dare County, and portions of Roanoke Island all had a lower per capita income than the more densely populated block groups in the northern part of the ROI (Figure 2-6).

In 2000, the ROI had a minority population of only 6 percent of the total (Table 2-7). This is less than in North Carolina and the United States as a whole, which had 30 percent and 31 percent minority populations, respectively. The ROI also had a lower

percentage of individuals below the poverty level and a lower percentage of individuals without high school diplomas. The distribution of poverty rates by block groups is shown in Figure 2-7.



Figure 2-5. Percentage of Residents Born in North Carolina by Block Group, 2000



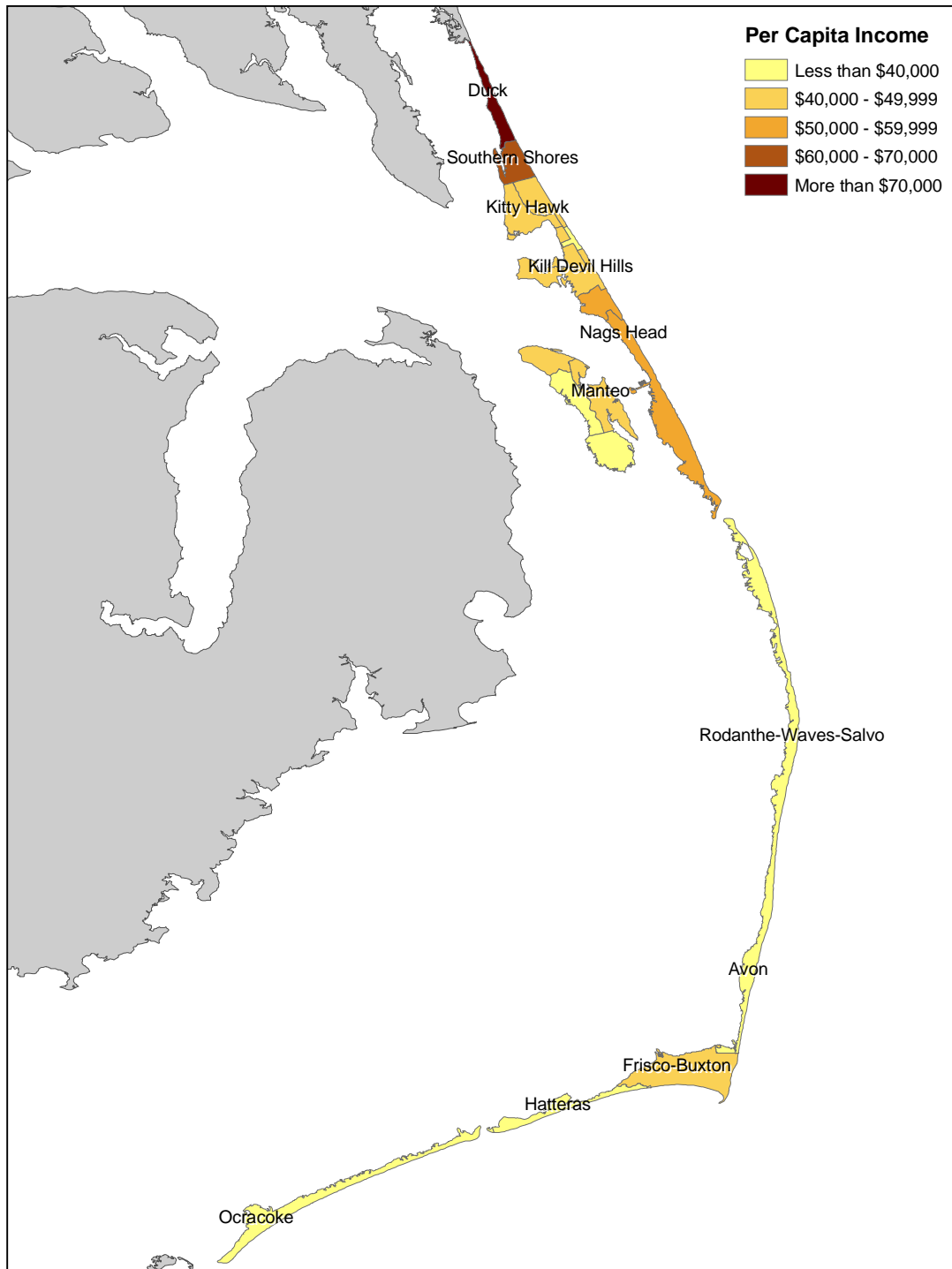
Source: U.S. Census Bureau 2000a; generated by RTI International; using American FactFinder; "Census 2000 Summary File 3 (SF3)—Sample Data" <http://factfinder.census.gov>. (December 5, 2008).

Table 2-6. Employment By Sector, 2000

Industry	Number of Employees	Percentage			Difference	
	ROI	ROI	NC	US	ROI - NC	ROI-US
Construction	2,102	14%	8%	7%	5%	7%
Accommodation and food services	1,857	12%	6%	6%	6%	6%
Real estate, rental and leasing	1,078	7%	2%	2%	5%	5%
Retail trade	2,296	15%	12%	12%	3%	3%
Agriculture, forestry, fishing and hunting	491	3%	1%	1%	2%	2%
Public administration	992	6%	4%	5%	2%	2%
Arts, entertainment, and recreation	453	3%	1%	2%	2%	1%
Utilities	162	1%	1%	1%	0%	0%
Management of companies and enterprises	0	0%	0%	0%	0%	0%
Other services (except public administration)	714	5%	5%	5%	0%	0%
Mining	4	0%	0%	0%	0%	0%
Administrative and support and waste management services	432	3%	3%	3%	0%	-1%
Information	379	2%	2%	3%	0%	-1%
Wholesale trade	414	3%	3%	4%	-1%	-1%
Professional, scientific, and technical services	688	4%	5%	6%	0%	-1%
Transportation and warehousing	365	2%	4%	4%	-1%	-2%
Educational services	986	6%	8%	9%	-2%	-2%
Finance and insurance	365	2%	4%	5%	-2%	-3%
Health care and social assistance	890	6%	11%	11%	-5%	-5%
Manufacturing	764	5%	20%	14%	-15%	-9%

Source: U.S. Census Bureau. 2000a; generated by RTI International; using American FactFinder; "Census 2000 Summary File 3 (SF3)—Sample Data" <http://factfinder.census.gov>. (December 5, 2008).

Figure 2-6. 1999 Per Capita Income by Block Group



Source: U.S. Census Bureau. 2000a; generated by RTI International; using American FactFinder; "Census 2000 Summary File 3 (SF3)—Sample Data" <http://factfinder.census.gov>. (December 5, 2008).

**Table 2-7.**  
**Environmental Justice**  
**Statistics, 2000**

Geographic Area	Per Capita Income	Percentage of Population		
		Minority	Below the Poverty Level	Without High School Diploma
United States	\$41,994	31%	12%	20%
North Carolina	\$39,184	30%	12%	22%
ROI	\$44,462	6%	8%	11%

Source: U.S. Census Bureau. 2000a; generated by RTI International; using American FactFinder; "Census 2000 Summary File 3 (SF3)—Sample Data" <http://factfinder.census.gov>. (December 5, 2008).

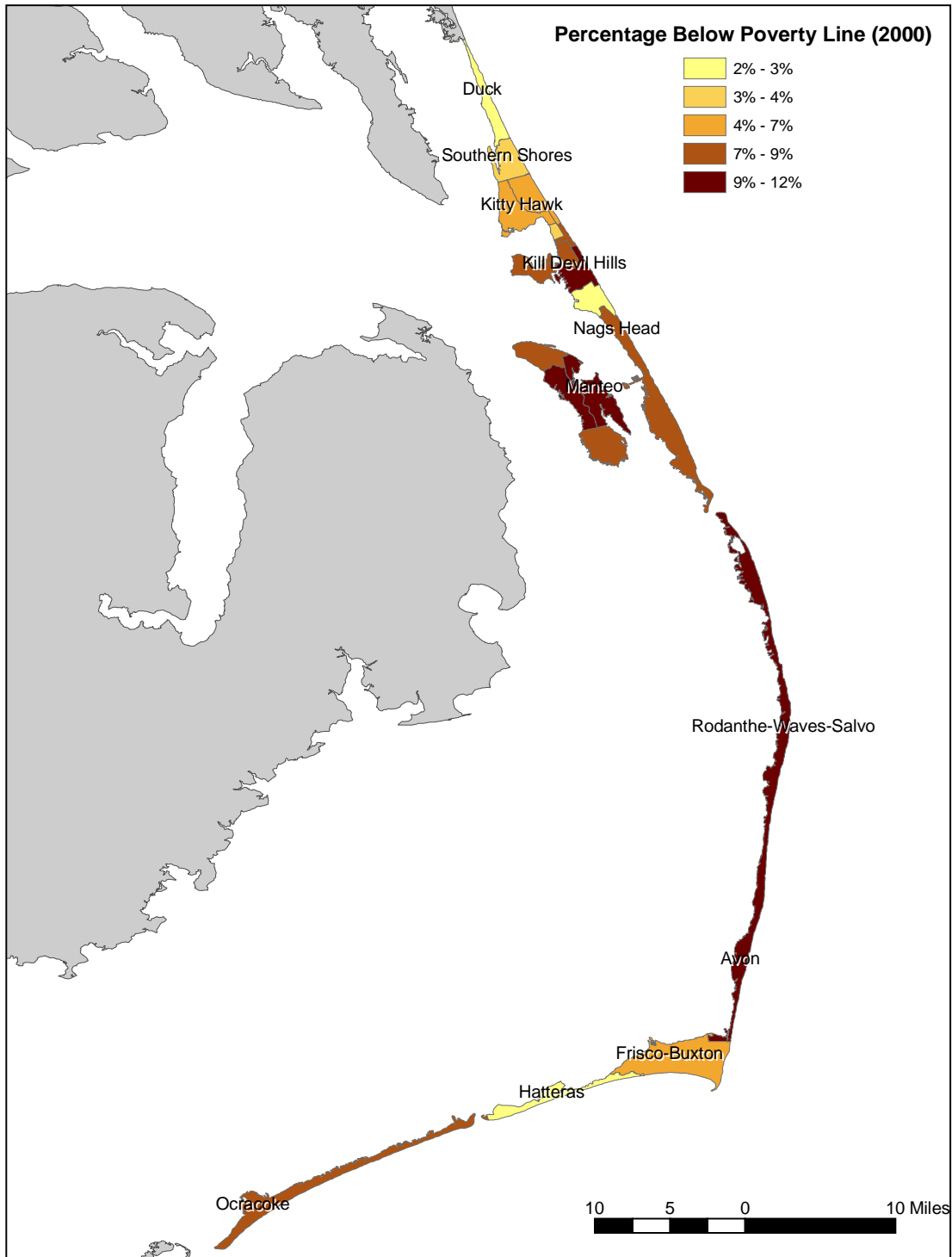
### 2.5.3 Employment

As noted above, with the exception of the northern portion of Dare County, the ROI is primarily rural. There are no military bases, major federal facilities, state prisons, commercial airports, or 4-year colleges in the ROI.

Within the ROI, much of the employment caters to tourists visiting the area. The sectors of construction; accommodation and food services; real estate, rental and leasing; and retail trade account for 47.52 percent of the total employment within the ROI and 49.98 percent within the Hatteras block groups in 2000. These sectors account for only 26.50 percent of employment in the United States as a whole (Table 2-6).

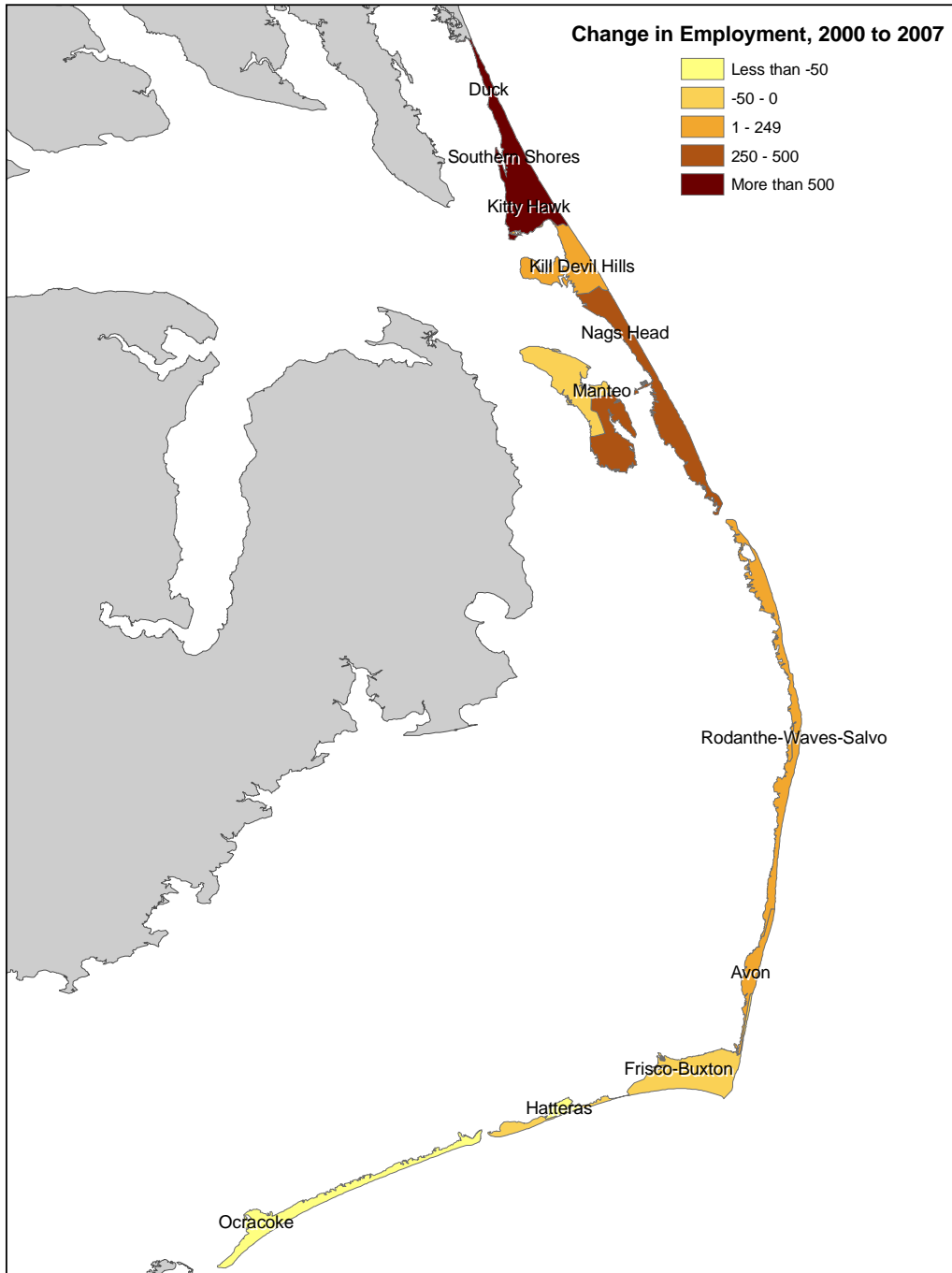
The majority of businesses within the ROI are located in the northern three zip codes in Dare County, encompassing the towns of Duck, Southern Shores, Kill Devil Hills, and Nags Head. This area accounts for 64.8 percent of establishments and 69.6 percent of employment within the ROI in 2007 and has seen robust employment growth since 2000. Other areas of the ROI have experienced smaller gains or reductions in employment (Figure 2-8). In 2007, Hatteras and Ocracoke islands contained 13.1 percent of the employees within the ROI. Small businesses are especially important within the ROI: 1,713 of 2,104 (81.42 percent) in the ROI operate with fewer than 10 employees in 2007, compared to 73.37 percent nationwide (U.S. Census Bureau, 2009b).

Figure 2-7. Percentage of Population below the Poverty Line by Block Group, 2000



Source: U.S. Census Bureau. 2000a; generated by RTI International; using American FactFinder; "Census 2000 Summary File 3 (SF3)—Sample Data" <http://factfinder.census.gov>. (December 5, 2008).

Figure 2-8. Change in Employment by Zip Code



Sources: U.S. Census Bureau. 2002. "County Business Patterns: 2000, Zip Code Totals File."  
[http://www.census.gov/econ/cbp/download/00\\_data/index.htm](http://www.census.gov/econ/cbp/download/00_data/index.htm).

U.S. Census Bureau. 2009a. "County Business Patterns: 2007, Zip Code Totals File."  
[http://www.census.gov/econ/cbp/download/07\\_data/index.htm](http://www.census.gov/econ/cbp/download/07_data/index.htm).

In addition to these employees, Dare and Hyde counties had 5,764 of self-employed individuals in 2007. The construction; real estate, rental and leasing; and agriculture, forestry, fishing and hunting (of which 61 percent are commercial fishermen) industries comprised 49 percent of all nonemployers<sup>3</sup> in the two counties (Table 2-8).

A survey of local businesses was also conducted (RTI International 2010a) to supplement the publicly available data. The survey included businesses in four primary industry categories for interviewing: recreational supplies, rental homes, lodging excluding rental homes, and commercial fishermen. The sample was divided between the Seashore villages (Ocracoke, Rodanthe, Waves, Salvo, Avon, Buxton, Hatteras, and Frisco) and three villages north of the Seashore (Nags Head, Kitty Hawk, and Kill Devil Hills). The majority of interviews were with the Seashore villages. To create the sampling frame (the list of businesses from which the sample will be drawn), NPS used a variety of resources. Lists of all businesses in the selected categories were compiled using the yellow pages, Web sites such as [outerbanks.org](http://outerbanks.org), InfoUSA (a geocoded database of businesses, InfoUSA 2008), input from Seashore staff, input from members of the Regulatory Negotiation Committee, and public input. The lists were then manually filtered to determine whether each business fit the business category definition and if the business was still active. Duplicates and additional locations were excluded to ensure one entry per entity. The sample of commercial fishermen comes from a list of fishermen with a license to fish in the Seashore as of June 2, 2009, supplied by the Seashore. Only fishermen designated as captains were included in the sample (RTI International 2010a).

In the Seashore villages, 57 recreational supply businesses, 13 housing rental agencies, 64 lodging businesses excluding rental housing, and 55 commercial fishermen were identified. In the three villages north of the Seashore, 62 recreational supply businesses, 43 housing rental agencies, and 76 lodging businesses excluding rental housing were identified.

---

<sup>3</sup> From <http://www.census.gov/econ/nonemployer/intro.htm>: "Nonemployers are typically self-employed individuals operating very small businesses, which may or may not be the owner's principal source of income...Data are primarily comprised of sole proprietorship businesses filing IRS Form 1040, Schedule C, although some of the data is derived from filers of partnership and corporation tax returns that report no paid employees."

Table 2-8. Nonemployers by Industry, 2007

Industry	Number of Nonemployers	Percentage			Difference	
	Dare and Hyde Counties	Dare & Hyde Counties	NC	U.S.	Counties, NC	Counties, U.S.
Agriculture, forestry, fishing, and hunting	667	12%	1%	1%	10%	10%
Construction	1,262	22%	16%	12%	6%	10%
Real estate and rental and leasing	912	16%	11%	11%	5%	5%
Administrative and support and waste management and remediation services	529	9%	10%	8%	-1%	1%
Accommodation and food services	109	2%	1%	1%	1%	0%
Utilities	3	0%	0%	0%	0%	0%
Manufacturing	>67	1%	2%	2%	0%	0%
Mining, quarrying, and oil and gas extraction	0	0%	0%	0%	0%	0%
Wholesale trade	72	1%	2%	2%	0%	-1%
Information	>37	1%	1%	1%	-1%	-1%
Educational services	80	1%	2%	2%	-1%	-1%
Arts, entertainment, and recreation	234	4%	4%	5%	0%	-1%
Finance and insurance	>99	2%	3%	4%	-1%	-2%
Other services (except public administration)	611	11%	15%	14%	-5%	-3%
Transportation and warehousing	>86	1%	4%	5%	-3%	-3%
Retail trade	309	5%	9%	9%	-4%	-4%
Health care and social assistance	195	3%	6%	8%	-3%	-5%
Professional, scientific, and technical services	461	8%	12%	14%	-4%	-6%
Total for all sectors	5,764	100%	100%	100%		

Among the businesses surveyed, 97 percent were small businesses. The overall response rate for the survey was 42



percent with a higher response rate for the Seashore villages and much lower for the businesses north of the Seashore.

#### **2.5.4 Unemployment**

In 2009, an average of 9.6 percent of the civilian labor force in Dare County was unemployed (2,179 individuals) and 8.3 percent in Hyde County (229 individuals) (Table 2-9). The unemployment rates for Dare and Hyde counties were lower than the unemployment rates in North Carolina as a whole in 2009. In April 2010, the North Carolina (seasonally unadjusted) unemployment rate was 10.1 percent, higher than Dare and Hyde counties (9.4 percent and 8.1 percent, respectively).

Within Dare County, establishments in construction, manufacturing, and retail trade industries accounted for the majority of private job losses from 2007 to 2008. Within retail trade, job losses in furniture and home furnishings stores, building material and garden equipment dealers, food and beverage stores, and health and personal care stores were partially offset by employment gains in clothing and clothing accessories stores; gasoline stations; and sporting goods, hobby, and musical instrument stores.

In the summer of 2009, unemployment rates in North Carolina and Dare and Hyde counties remained elevated relative to their 2004 to 2006 average. Figure 2-9 charts the difference between the monthly unemployment rate between January 2007 and January 2010 and the average unemployment rate between 2004 and 2006 for the same month. Between January 2007 and March 2007, the unemployment rate was lower than the 2004-2006 average. Unemployment in Dare increased more than the state of North Carolina as a whole in the winters of 2008/2009 and 2009/2010. In the summer of 2009, Dare County's unemployment rate was closer to the 2004-2006 average than the state of North Carolina. In the winter of 2009-2010, unemployment rates in Dare and Hyde counties increased relative to the 2004-2006 average for these months, reflecting the loss of non-seasonal employment in these counties.

#### **2.5.5 Tourism Contributions to the Economy**

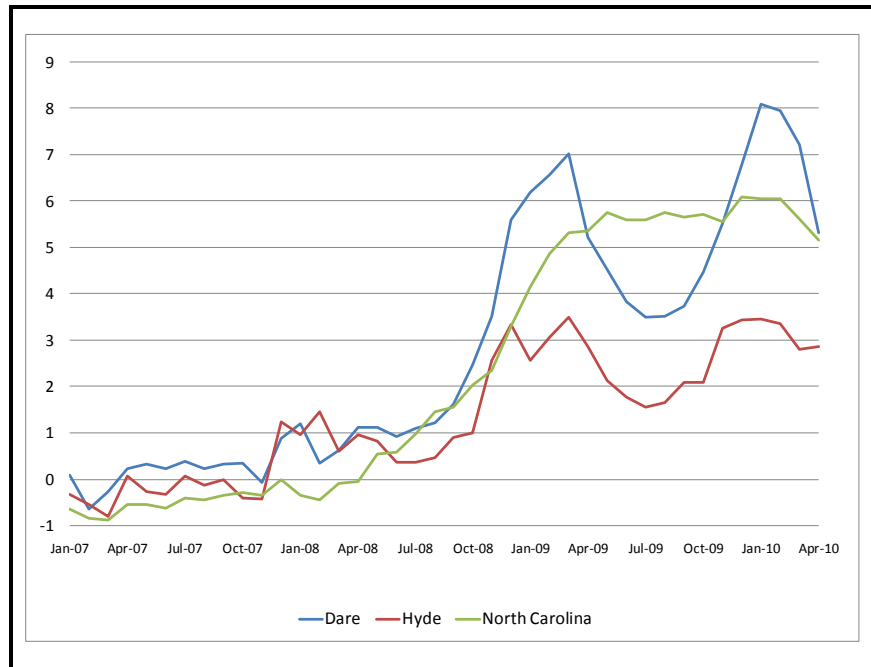
The economy of the ROI is largely driven by the region's tourist draw, mainly during the summer months. As estimated by the

**Table 2-9. Employment Characteristics, 2009**

	North Carolina	Dare County	Hyde County
Labor force	4,544,622	22,591	2,768
Employment	4,060,764	20,412	2,539
Unemployment	483,858	2,179	229
Unemployment rate	10.6%	9.6%	8.3%

Source: Bureau of Labor Statistics. 2010. "Local Area Unemployment Statistics." <http://www.bls.gov/lau>. (September 2, 2009).

**Figure 2-9. Difference in Unemployment Rate from 2004–2006 Monthly Average**



Source: Bureau of Labor Statistics. 2010. "Local Area Unemployment Statistics." <http://www.bls.gov/lau>. (June 29, 2009).

North Carolina Department of Commerce, travel expenditures in Dare County have increased faster than they have for the state as a whole (Table 2-10); however, travel expenditures in Hyde County have decreased since 2000. In 2008, Department of Commerce estimates that tourism was responsible for 11,250 jobs in Dare County and 370 jobs in Hyde County (Department of Commerce 2009).

**Table 2-10. Estimated Domestic Travel Expenditures (\$2008 Millions)**

Geographic Area	1991	2000	2008	2000 to 2008 CAGR*
North Carolina	\$11,092.58	\$15,089.89	\$16,864.60	1.6%
Dare County	\$377.40	\$624.14	\$777.41	3.2%
Hyde County	\$17.93	\$29.58	\$28.11	-0.7%

\*Compound annual growth rate

Source: North Carolina Department of Commerce. 2009. "Economic Impact of Travel in North Carolina Based on Visitor Spending."  
<http://www.nccommerce.com/en/TourismServices/PromoteTravelAndTourismIndustry/TourismResearch/visitorspending.htm>.

### 2.5.6 Housing

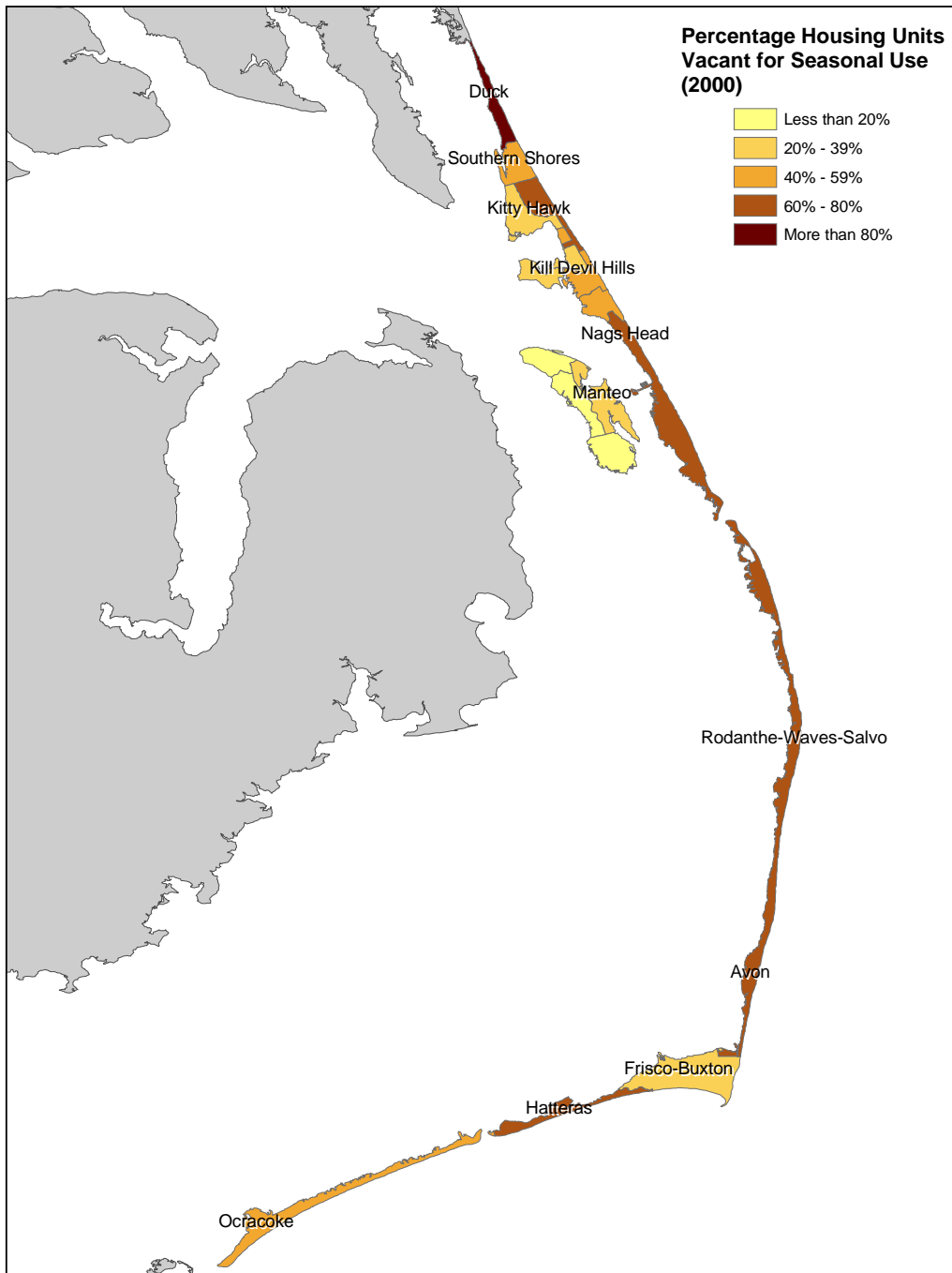
In 2000, the ROI had a total of 26,891 housing units, with 97 percent of these located in the Dare County block groups. The ROI's housing is roughly 54 percent urban and 46 percent rural; 100 percent of the urban housing units are located in Dare County block groups. Over 50 percent of the housing units in the ROI are for seasonal, recreational, or occasional use (Table 2-11). The distribution of vacant housing units for seasonal, recreational, or occasional use is shown in Figure 2-10. This is further evidence of the importance of tourism's contributions to the region's economy.

**Table 2-11. Housing Unit Statistics, 2000**

	United States	North Carolina	ROI
Total	115,904,641	3,523,944	26,891
Urban	89,966,555	2,080,729	14,578
% of total	78%	59%	54%
Occupied	105,480,101	3,132,013	12,588
Vacant	10,424,540	391,931	14,303
For seasonal, recreational, or occasional use	3,872,468	147,087	13,771
% of total	3%	4%	51%

Source: U.S. Census Bureau. 2000a; generated by RTI International; using American FactFinder; "Census 2000 Summary File 3 (SF3)—Sample Data" <http://factfinder.census.gov>. (December 5, 2008).

Figure 2-10. Percentage of Housing Units Vacant for Seasonal, Recreational, or Occasional Use by Block Group, 2000



Source: U.S. Census Bureau. 2000a; generated by RTI International; using American FactFinder; "Census 2000 Summary File 3 (SF3)—Sample Data" <http://factfinder.census.gov>. (December 5, 2008).

**Table 2-12. Change in Housing Units**

<b>Geographic Area</b>	<b>2000</b>	<b>2008</b>	<b>Percentage Change 2000–2008</b>
United States	115,904,641	129,065,264	11%
North Carolina	3,523,944	4,201,378	19%
Dare County	26,671	32,749	21%
Hyde County	3,302	3,495	5%

Sources: U.S. Census Bureau, Population Division. 2009a. "HU-EST2008: State Housing Unit Estimates: April 1, 2000 to July 1, 2008." <http://www.census.gov/popest/housing/files/HU-EST2008.CSV>.

U.S. Census Bureau, Population Division. 2009b. "HU-EST2008-37: Housing Unit Estimates for Counties of North Carolina April 1/2000 to July 1/2008." <http://www.census.gov/popest/housing/files/HU-EST2008-37.CSV>.

Since 2000, Dare County has experienced a 21 percent increase in the number of housing units, relative to a 19 percent change statewide (Table 2-12). However, in October of 2008, Dare County had the fifth highest foreclosure rate of any county in North Carolina: one in every 679 housing units were in foreclosure (RealtyTrac.com, 2008).

# 3

## Benefit-Cost Analysis of the Alternatives

In this section, NPS presents the benefits and costs associated with alternatives considered for managing ORVs in the Seashore relative to the two no-action baselines.

The purpose of benefit-cost analysis is to evaluate the social welfare implications of a proposed action—in this case the management of ORVs in the Seashore. It examines whether the reallocation of society's resources resulting from the action promotes efficiency. That is, the analysis assesses whether the action imposes costs on society (losses in social welfare) that are less than the benefits (gains in social welfare). Section 3.1 provides a conceptual framework for the benefit-cost analysis and a general discussion of the externalities associated with ORV use. Section 3.2 contains a specific discussion of the benefits and costs of the alternative management proposals for the Seashore relative to No-Action Alternatives A and B.

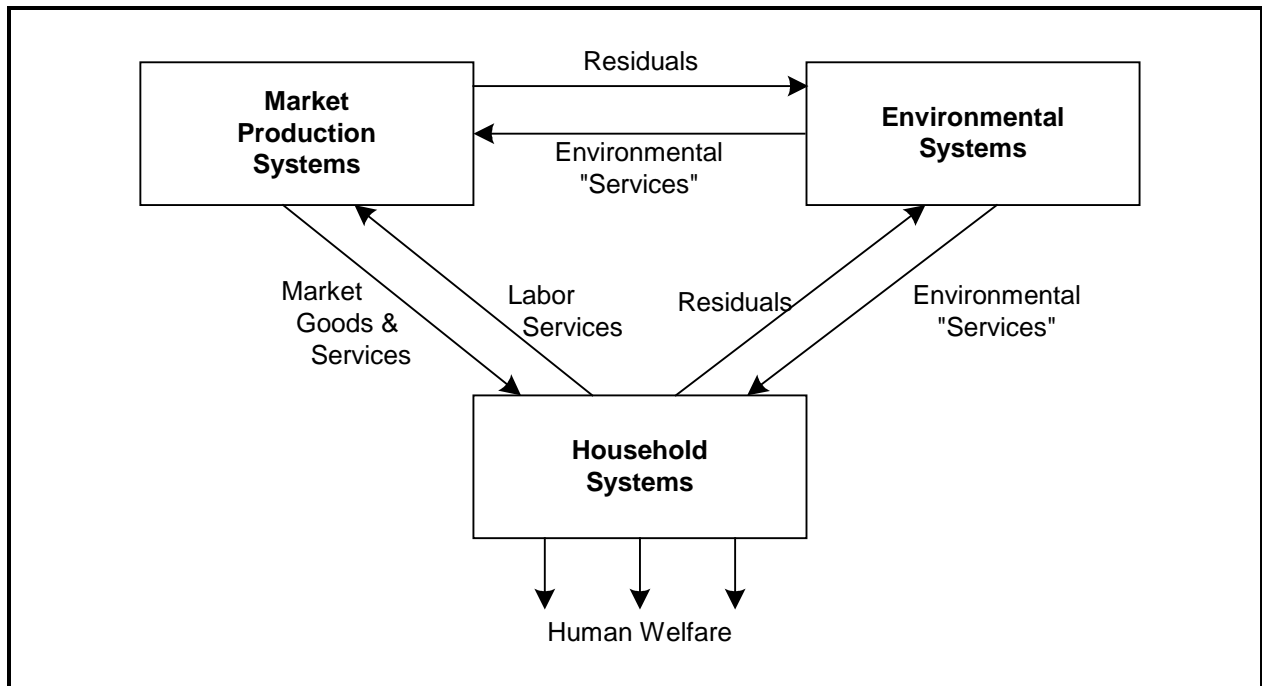
---

### 3.1 CONCEPTUAL BASIS FOR BENEFIT-COST ANALYSIS OF OFF-ROAD VEHICLE REGULATIONS IN NATIONAL PARKS

#### 3.1.1 Conceptual Basis for Benefit-Cost Analysis

According to the conceptual underpinnings of benefit-cost analysis, all social welfare impacts ultimately accrue to individuals. This is represented in Figure 3-1, which depicts flows of goods, services, and residuals among three major systems: market production, household, and the environment. Because these systems are closely interconnected, actions taken to reduce releases of harmful residuals (e.g., chemicals or pollution) to the environment potentially will reverberate throughout all of these systems. Nevertheless, the impacts of

**Figure 3-1. Interrelationship Among Market, Environmental, and Household Systems and Social Welfare**




---

*Under regulations that affect ORV access to the beaches, the most direct impact will be on visitors who use ORVs, whose recreational opportunities may be constrained by the restrictions.*

---

these actions, both the costs and benefits, will ultimately be experienced as changes in well-being for households and individuals. As a result, identifying and measuring costs and benefits must focus on these changes in well-being.

The conceptual framework depicted in Figure 3-1, therefore, provides a basis for assessing the benefits and costs of regulating ORVs in national parks. Under regulations that affect ORV access to the beaches, the most direct impact will be on visitors who use ORVs, whose recreational opportunities may be constrained by the restrictions. This will result in welfare losses to these individuals. The regulations will likewise directly impact visitors who prefer an ORV-free experience. This will result in welfare gains to these individuals.

The concept of distorted primary markets is also important in analyzing the impact of the proposed ORV regulations. ORV use may generate negative externalities<sup>4</sup> that affect other visitors

---

<sup>4</sup> An externality is an impact (positive or negative) on anyone not party to a given economic transaction. An externality occurs when a decision causes costs or benefits to third party stakeholders, often, although not necessarily, from the use of a public good.

and Seashore resources. If ORVs do generate negative externalities, then the private cost of using an ORV on the beach (the cost to the individual driver, for example) will be lower than the social cost of ORV use (where the social cost of ORV use includes both the cost to the ORV user and the costs to others that result from the negative externalities associated with ORV use). Because ORV users do not have to pay the full social cost of using an ORV on the beach and instead only pay the lower, private cost, ORV use will be higher than the socially optimal use level. Measures of net consumer surplus to ORV users that do not account for the additional costs imposed on society by the negative externalities associated with ORV use will overstate the true net social welfare associated with the activity.

If individuals change their behavior in response to ORV management changes, these changes are likely to affect environmental systems and market systems. Reductions in the market demand for ORV visitor-related goods and services will have negative impacts for those who own or work for establishments supplying these services. Conversely if the restrictions bring new visitors to the Seashore, then businesses serving these visitors will gain. In addition, benefit-cost analysis focuses on the net impact of an action on society as a whole, not just one specific region. If visitors leave one area and visit another, then the businesses in the new area will benefit from increased business. These types of direct and indirect impacts are identified and evaluated as part of this benefit-cost analysis.

Estimating the monetary value of benefits and costs requires methods for expressing welfare changes in monetary terms. In certain instances, welfare changes are directly the result of monetary gains or losses and can, therefore, be thought of as being equivalent to these gains or losses. For example, under regulations restricting ORV use, welfare losses to shops that cater to ORV visitors due to reductions in demand for their services can be reasonably measured as their resulting net loss in income. A benefit-cost analysis measures the impact on businesses by the change in producer surplus. Producer surplus measures the difference between total revenue and variable costs. Businesses will gain or lose producer surplus depending on how their customers change their behavior in response to new ORV management.



---

*Economists generally accept willingness to pay (WTP) as the conceptually correct measure for valuing changes in individuals' welfare. WTP represents the maximum amount of money that an individual would be willing to forgo to acquire a specified change.*

---

In other instances, welfare changes are not directly associated with pecuniary gains or losses. Such “nonmarket” changes might include the welfare gains from improved habitat for threatened and endangered species in a Seashore, the diminished recreation experiences for ORV visitors or enhanced recreational experience for visitors who want an vehicle free experience. In these cases, a surrogate measure of gains or losses must be used; willingness to pay (WTP) is such a surrogate. Economists generally accept WTP as the conceptually correct measure for valuing changes in individuals' welfare. WTP represents the maximum amount of money that an individual would be willing to forgo to acquire a specified change. Thus, it is the monetary equivalent of the welfare gain from the change.

The welfare losses to individual consumers (ORV users) are measured by their loss in consumer surplus. Consumer surplus is measured as the difference between the total costs of a product or activity to the consumer and the total amount the individual would be willing to pay for that activity. Individuals gain consumer surplus if the cost of an activity decreases or the quality increases. Losses in consumer surplus come from the opposite impacts, including increases in the cost of the activity or decreases in the quality. If an individual can no longer participate in their first-choice activity because the cost is too high or access is restricted, the individual loses the entire consumer surplus associated with the trip.

The extent of the welfare loss to an individual depends crucially on the availability of substitute activities. The more substitutes an individual has for the activity, the lower their consumer surplus loss will be if that activity increases in cost or decreases in quality or if access is restricted. If many similar substitutes exist, then the individual can switch to a new activity or location with little impact on their overall utility. What constitutes a substitute varies across individuals based on their preferences, their location, and their income.

### **3.1.2 Identifying Relevant Benefits and Costs**

To conduct the benefit-cost analysis, the relevant benefits and costs must be identified. This section discusses two economic concepts that are important for an analysis of the benefits and costs of the proposed ORV regulations: indirectly affected secondary markets and distorted primary markets. Often

consumers and producers may be indirectly affected by a policy. For example, regulations restricting ORV use in national parks may lead to decreased demand for ORV rentals or fishing supplies. Whether these indirect, or secondary, impacts should be included in the analysis depends on whether the change in demand or supply in the secondary market results in price changes (for details, see a benefit-cost analysis textbook such as Boardman et al. [1996]). In general when the policy change in the primary market (the market for trips to the Seashore) causes prices to change in the secondary markets (businesses that serve visitors to the Seashore), the net change in social welfare from the secondary market should be included in the benefit-cost analysis. If prices do not change in the secondary market, the revenue gains or losses should not be included in the benefit-cost analysis. Without more detailed information, NPS is unable to predict whether the alternatives for ORV management will change the prices of goods or services purchased by ORV users. Thus, losses or gains to businesses that may be indirectly, but significantly, affected by the alternatives are included in the benefit-cost analysis.

---

## **3.2 RESULTS FOR THE SEASHORE**

Based on the approach and possible impacts outlined above, this section presents the results of the benefit-cost analysis for the Seashore. The section discusses the groups most directly affected by the change in regulation and several scenarios for the possible levels of impacts. The benefits and costs accruing to these groups are then presented.

### **3.2.1 Affected Groups**

Table 3-1 describes the possible welfare impacts of the action alternatives for seven groups within the population. The groups include:

1. Visitors to the Seashore who want to drive vehicles on the beach or who travel with other visitors who want to drive on the beach.
2. Visitors or potential visitors who want an ORV-free experience on the beach.
3. Visitors who want to walk on the beach.
4. The general public who may care about the Seashore and the natural environment of the Seashore, even if they do not visit.

Table 3-1. Affected Groups and Possible Changes in Welfare

Group	Current Activity	Change in Activity	Change in Welfare
1. Visitors who want to drive on the beach	Drive on beach in areas that would be open under final rule	None	Consumer surplus decreases if beaches are more crowded when other areas are closed to vehicles Consumer surplus increases if cost of lodging or supplies for trip decrease
Visitors who want to drive on the beach	Drive on beach in areas that would be closed under final rule	Drive on other parts of the Seashore	Consumer surplus decreases (not first-choice activity)
Visitors who want to drive on the beach	Drive on beach in areas that would be closed under final rule	Do not visit the Seashore	Consumer surplus decreases (not first-choice activity)
2. Visitors who want an experience without ORVs	Visit the Seashore in areas that would remain unchanged by the rule	None	No change in consumer surplus
Visitors who want an experience without ORVs	Visit the Seashore in areas that currently allow vehicles but would be closed to vehicles under the final rule	None	Consumer surplus increases if visitors prefer no vehicles and it does not change if visitors are indifferent
Visitors who want an experience without ORVs	Visit the Seashore in areas that currently do not allow vehicles but would be open to vehicles under the final rule	Visit other parts of the Seashore or do not visit the Seashore	Consumer surplus decreases (not first-choice activity)
Potential visitors who want an experience without ORVs	Currently visit other recreational sites because of current management of beach driving	Visit Seashore	Consumer surplus increases (can participate in new activity)
3. Visitors who want to walk on the beach	Visit the Seashore in areas that would remain unchanged by the rule	None	No change in consumer surplus
Visitors who want to walk on the beach	Visit areas that will be closed to ORVs under the rule	None	Consumer surplus increases if visitors prefer no vehicles and it does not change if visitors are indifferent

(continued)

Table 3-1. Affected Groups (continued)

Group	Current Activity	Change in Activity	Change in Welfare
Visitors who want to walk on the beach	Visit the Seashore in areas that would be closed to pedestrians by the rule	Walk in other parts of the Seashore or do not visit	Consumer surplus decreases (not first-choice activity)
4. General public	Not related to use of Seashore	None	Consumer surplus increases if new management benefits the Seashores' resources
5. Businesses that support visitors who want to drive on the beach	Conduct business with visitors	Less business if visitation changes	Producer surplus decreases (if visitor spending down)
Businesses that support visitors who do not want to drive on the beach	Conduct business with visitors	More business if visitation changes	Producer surplus increases (if visitor spending up)
6. Businesses in other locations	Conduct business with visitors	More business if visitors to the Seashore decide to visit other beaches	Producer surplus increases (if visitor spending up)
7. National Park Service (Federal taxpayers)	Use Agency resources for management	Increase or decrease need for management resources	Society's welfare will increase or decrease if resources are redirected from or to higher valued activities

5. Local businesses indirectly affected by changes in management of beach driving through changes in visitation patterns.
6. Businesses in other areas that may benefit if Seashore visitors decide to visit other beaches or vacation areas.
7. NPS, which will incur changes in the cost of managing the Seashore under the final rule.

For each group, Table 3-1 summarizes possible changes in activity and resulting changes in welfare, whether consumer surplus or producer surplus. Below the welfare changes are discussed in more detail.

### 3.2.2 Scenarios

Analysis of the changes in welfare to visitors, businesses, and the general public requires predicting the likely impact of the alternatives relative to the two no-action alternatives. Of course, forecasting the impact of any of the alternatives over

the next 10 years involves a great deal of uncertainty. The actual impacts will depend on how visitors change their visiting and spending patterns, bird and turtle nesting patterns, as well as factors unrelated to the alternatives such as severe weather and the national economy. To incorporate some of this uncertainty into the forecasts, high, medium and low impact scenarios were developed for each of the action alternatives.

Ideally, we would forecast visitation in terms of visitor days under baseline and each action alternative and use the forecast to derive the incremental change in visitation under each scenario. To calculate changes in consumer surplus, the incremental change in visitation for different types of visitors would then be multiplied by the appropriate WTP value to calculate total consumer surplus change.

Likewise, the incremental change in visitation under each action alternative would be multiplied by average spending for each type of visitor. The resulting estimates of change in revenue would be adjusted to calculate producer surplus.

Unfortunately, a single, robust source of visitation data does not exist for the Seashore to forecast baseline use. Instead, several sources of data were combined to create qualitative and, where possible, quantitative estimates of the incremental impacts of the action alternatives. The following sources of data were used to develop the scenarios used to estimate the possible range of benefits and costs associated with each alternative relative to each baseline.

- Official Seashore visitation statistics. NPS keeps official visitation statistics of the number of trips to the Seashore but not the number of visitor days spent at the Seashore. The official visitation statistics are derived from a traffic counter that counts cars heading south at Whalebone Junction, which is located north of the Seashore boundary, on Highway 12. The count of cars is adjusted using assumptions about the number of people in each vehicle and the percentage of the traffic that is local or otherwise not visitors. The number is supplemented with data on the number of ferry passengers leaving Cedar Island for Ocracoke and the number of passengers flying into the airport on Ocracoke.  
(<http://www.nature.nps.gov/stats/park.cfm?parkid=171>)

- A 2009 survey of businesses in the villages around the Seashore and in the villages of Nags Head, Kill Devil Hills, and Kitty Hawk located north of the Seashore (RTI International, 2010a). The survey asked businesses about their revenue in 2007 and 2008, as well as their forecast for how different features of the action alternatives would affect their customers and revenue.
- A count of vehicles using the beach access ramps conducted between April 2009 and March 2010 (RTI International 2010b). Vehicle counts were conducted based on a sampling plan stratified by location, ramp, day of the week, time of day, and time of year. The results were weighted to produce mean estimates with 95% confidence intervals for vehicle traffic at different locations and for different times of the year. (See Section 2.3.2 for more information about the vehicle count.)
- Data purchased for analysis using IMPLAN (Minnesota IMPLAN Group, Inc. 2004), an input-output model that calculates the ripple effects that changes in direct spending have on other sectors of the economy in a particular region. IMPLAN was used to calculate the impacts of the alternatives for the FEIS.
- Profit ratios from the Internal Revenue Service (2010) "Corporation Source Book: Data Files 2004-2007."
- Additional publically available data.

The range of scenarios for each action alternative relative to each no-action alternative used to calculate producer surplus comes from the direct economic impacts calculated in the FEIS for each alternative. The impacts are based on results from the business survey, official NPS visitation statistics, and other publically available data as described in the FEIS.

To address consumer surplus changes, the data from the vehicle count and the business survey were used to qualitatively assess the number of visitors affected by the action alternatives.

### **3.2.3 Benefits to Visitors and the General Public**

The benefits of the action alternatives relative to the no-action alternatives accrue to visitors and potential visitors who would enjoy their visit more or consider the beach safer under the changes in vehicle access detailed in the action alternatives

relative to the no-action alternatives. Table 3-2 reproduces the text from the FEIS summarizing the impacts of the different alternatives on visitor experience for visitors who want an experience that includes ORV experience and those who want an experience that does not include ORVs (either personal use of an ORV or sharing the beach with ORVs).

Based on the analysis in the FEIS, visitors who want an ORV-free experience would experience increases in welfare from all the action alternatives relative to the no-action alternatives. Both no-action alternatives are projected to result in moderate adverse impacts, while all the action alternatives would provide benefits to non-ORV visitors. The action alternatives establish year-round and seasonal areas that do not allow ORVs.

Relative to the no-action alternatives, Alternative D provides the most ORV-free areas, although pedestrian access to some areas would also be limited during breeding season. Alternative C would most likely provide the next highest level of benefits relative to Alternatives E and F. Alternative E would most likely provide the least benefits to non-ORV visitors compared to the other action alternatives, with provisions for driving on the beach until 10:00 p.m. during breeding season.

The data to estimate monetary measures of the benefits to visitors and the general public do not exist currently. Many economic studies estimate the value of a beach day and the effect of crowding on beach-day values, but none that we know of that estimate visitors' WTP to be on a beach without vehicles.

Table 3-3 provides a summary of some studies that estimate WTP for a day at the beach. These studies provide a sense of the range of consumer surplus values associated with a trip to the beach. Parsons and Massey (2003), in a study of beach day values for ocean beaches from Delaware to Assateague Island, VA, found that beaches in national, state or local parks were valued more highly. They note that most surf fishing takes place in Seashore beaches, and the value of surf fishing may be contributing to the higher value of Seashore beaches.

Members of the public who do not visit the Seashore may still place a value on the additional protection provided to the natural environment under the action alternatives relative to the no-action alternatives (referred to as nonuse or existence

value, and called preservation value in the FEIS). Table 3-4 summarizes the text from the FEIS related to the overall impacts on nonuse values or preservation values, along with the impacts on federally threatened and endangered species (the piping plover, sea turtles, and seabeach amaranth).

Alternative D provides the greatest protection for the Seashore's environmental resources and the greatest benefits for members of the general public who hold preservation values for the Seashore's natural resources. The next highest benefits come from Alternative C, followed by Alternatives F and E. There are also studies of WTP to protect threatened and endangered species. These studies estimate the WTP by the general public for improvements in the probability that a species will survive (not become extinct) or for increases in the population of a species. Whitehead (1993) estimated an option price of \$10.98 per person for a hypothetical fund to preserve loggerhead sea turtles in North Carolina.



Table 3-2. Impacts of Alternatives on Visitor Experience

No-Action Alternative A	No-Action Alternative B	Action Alternative C	Action Alternative D	Action Alternative E	Action Alternative F
<b>Visitors who want an experience that includes ORV use</b>					
Those looking for an experience at the Seashore that includes ORV use would have <b>long-term negligible to minor adverse impacts</b> as some areas would be closed for resource protection, but alternative A would provide the most ORV access of any alternative. Should there be extensive resource closures in a given year, <b>the potential for long-term moderate impacts exists.</b>	Those looking for an experience at the Seashore that includes ORV use would have <b>long-term moderate to major adverse impacts</b> as one or more spit or point would be closed for an extended period of time during the breeding season. During the remainder of the year, there would be <b>negligible to minor adverse impacts</b> to ORV users as limited areas would be closed for resource protection.	Those looking for an experience at the Seashore that includes ORV use would have <b>long-term moderate to major adverse impacts</b> as the designation of VFAs and the establishment of the Species Management Areas would seasonally preclude ORV use from some areas of the Seashore that are popular ORV use areas. While three areas would have pedestrian access corridors, no ORV corridors would be provided in the Species Management Areas, resulting in greater impacts to ORV users.	Those looking for an experience at the Seashore that includes ORV use would have <b>long-term major adverse impacts</b> as all Species Management Areas and village beaches would be designated as VFAs year-round, which would prohibit the use of ORV in many popular visitor use areas.	Those looking for an experience at the Seashore that includes ORV use would have <b>long-term moderate adverse impacts</b> as the designation of VFAs and the establishment of the Species Management Areas would preclude ORV use, either seasonally or year-round, from areas of the Seashore that are popular visitor use areas. Three Species Management Areas would provide an ORV pass-through corridor at the start of the breeding season, subject to resource closures, lessening the impacts to this user group. Additional recreational opportunities such as park-and-stay and camping would provide long-term benefits.	Those looking for an experience at the Seashore that includes ORV use would have <b>long term moderate adverse impacts</b> as the designation of VFAs and carrying capacity limits could or would preclude ORV use, either seasonally or year-round, from some areas of the Seashore that are popular visitor use areas. Improved access would be provided to the soundside under this alternative.

(continued)

Table 3-2. Impacts of Alternatives on Visitor Experience (continued)

No-Action Alternative A	No-Action Alternative B	Action Alternative C	Action Alternative D	Action Alternative E	Action Alternative F
<b>Visitors who want an ORV-free experience</b>					
Those looking for a vehicle free experience at the Seashore would experience <b>long-term moderate adverse impacts</b> as alternative A does not provide for a specific separation of uses or designation of VFAs. Since night driving would be permitted under alternative A, there would be <b>short-term minor adverse impacts</b> to night skies.	Those looking for a vehicle free experience at the Seashore would experience <b>long-term moderate adverse impacts</b> as alternative B does not provide for a specific separation of uses outside of seasonal ORV closures of village beaches and no vehicle free areas would be designated. Since night driving would be seasonally restricted under alternative B, there would be <b>long-term negligible to minor adverse impacts</b> to night skies, with <b>long-term beneficial impacts</b> during times of seasonal night-driving restrictions.	Those looking for a vehicle free experience at the Seashore would experience <b>long-term benefits</b> as alternative C provides for pedestrian corridors in three Species Management Areas, as well as providing additional VFAs. Since night driving would be seasonally restricted under alternative C, there would be <b>long-term negligible to minor adverse impacts</b> to night skies, with <b>long-term beneficial impacts</b> during times of seasonal night-driving restrictions.	Those looking for a vehicle free experience at the Seashore would experience <b>long-term benefits</b> as alternative D provides for many designated VFAs throughout the Seashore, although pedestrian access would be prohibited in the Species Management Areas during the breeding season. Since night driving would be seasonally restricted under alternative D, there would be <b>long-term negligible to minor adverse impacts</b> to night skies, with <b>long-term beneficial impacts</b> during times of seasonal night-driving restrictions.	Those looking for a vehicle free experience at the Seashore would experience <b>long-term benefits</b> as alternative E provides for designated year-round VFAs, as well as seasonal ORV closures in areas such as village beaches and some of the Species Management Areas. Since night driving would be seasonally restricted, but allowed until 10:00 p.m., under alternative E, there would be <b>long-term moderate adverse impacts</b> to night skies due to the hours of night driving allowed, implementation of park-and-stay opportunities, with <b>long-term beneficial impacts</b> during times of seasonal night-driving restrictions.	Those looking for a vehicle-free experience at the Seashore would experience <b>long term benefits</b> as alternative F provides for year round VFAs, as well as seasonal ORV closures in areas such as village beaches, one new pedestrian trail, 12 new or improved parking areas with pedestrian access, and pedestrian access seaward of prenesting closures. Since night driving would be seasonally restricted under alternative F, there would be <b>long-term negligible to minor adverse impacts</b> to night skies, with <b>long-term beneficial impacts</b> year-round in VFAs and seasonally on ORV routes during times of seasonal night driving restrictions.

NOTE: Impacts based on FEIS (NPS, 2010) Table ES-5. ENVIRONMENTAL IMPACT SUMMARY BY ALTERNATIVE and impact summary tables in Chapter 4.

**Table 3-3. Estimates of WTP for a Beach Day**

<b>Study</b>	<b>Location</b>	<b>WTP per Day-Trip</b>	<b>WTP per Trip</b>
Bin et al. (2005)	North Carolina, 7 beaches from Pea Island to Wrightsville Beach	Mean per person per day value for day trip to Hatteras: \$60.37 95% confidence interval: (\$32.46 to \$252.09)	Mean per person per trip value for Hatteras: \$11.14 95% confidence interval: (\$6.27 to \$39.03)
Parsons and Massey (2003)	Beaches from Delaware to Assateague Island, VA		Per person per trip loss from beach closure: \$5.27 to \$0

**Table 3-4. Impacts of Alternatives on Nonuse Value and Federally Threatened and Endangered Species (Piping Plover, Sea Turtles, and Seabeach Amaranth)**

No-Action Alternative A	No-Action Alternative B	Action Alternative C	Action Alternative D	Action Alternative E	Action Alternative F
<b>Nonuse Value (called Preservation Value in FEIS)</b>					
<p>The long-term minor to major impacts to protected species would result in <b>long-term moderate adverse impacts</b> to preservation values.</p>	<p>The long-term minor to moderate impacts to protected species, and addition of protection from seasonal night driving restrictions would result in <b>long-term minor to moderate adverse impacts</b> to preservation values.</p>	<p>Adverse impacts to preservation values would be less under alternative C, relative to alternatives A and B, and overall impacts to preservation values would be <b>long-term minor adverse with long-term beneficial impacts</b> from the measures taken to protect sensitive species at the Seashore.</p>	<p>Adverse impacts to preservation values would be less under alternative D, relative to alternatives A and B, and the overall impact to preservation values would be <b>long-term minor adverse</b>, with the closure of sensitive areas to ORVs under alternative D year-round substantially increasing the probability of <b>long-term beneficial impacts</b> relative to all other alternatives.</p>	<p>Adverse impacts to preservation values would be less under alternative E, relative to alternatives A and B, and overall preservation values would be <b>long-term minor to moderate adverse with long-term beneficial impacts</b> from the measures taken by the Seashore to protect threatened and endangered, as well as special status species.</p>	<p>Adverse impacts to preservation values would be less under alternative F, relative to alternatives A and B, and overall preservation values would be <b>long-term minor to moderate adverse</b>, with <b>long-term beneficial impacts</b> from the measures taken by the Seashore to protect threatened and endangered, as well as special status species.</p>

(continued)

**Table 3-4. Impacts of Alternatives on Nonuse Value and Federally Threatened and Endangered Species (Piping Plover, Sea Turtles, and Seabeach Amaranth) (continued)**

No-Action Alternative A	No-Action Alternative B	Action Alternative C	Action Alternative D	Action Alternative E	Action Alternative F
<b>Piping Plover</b>					
<p>Overall, impacts to piping plover from ORV and other recreational use would be <b>long-term moderate to major adverse</b> as much of the Seashore would be open to recreational use,</p>	<p>Overall, impacts to piping plover from ORV and other recreational use would be <b>long-term moderate adverse</b>. While some buffers would be increased in an attempt to separate recreational uses from piping plover,</p>	<p>Overall, impacts to piping plover from ORV and other recreational use would be <b>long-term minor adverse</b>. The establishment of the Species Management Areas that proactively reduce or preclude recreational use early in the breeding</p>	<p>Overall impacts from ORV and other recreational use would be <b>long-term minor adverse</b>. The establishment of Species Management Areas that are closed to ORVs year-round and managed for species protection during breeding season would proactively preclude recreational use early in</p>	<p>Overall impacts from ORV and other recreational use would be <b>long-term minor to moderate adverse</b>. The establishment of the Species Management Areas that proactively reduce or preclude recreational use early in the breeding season, ORV permit requirements, and</p>	<p>Overall impacts under alternative F from ORV and other recreational use would be <b>long-term minor to moderate adverse</b>. The establishment of prenesting closures, year-round and seasonal VFAs,</p>
<p>with an increased potential that piping plover could be impacted due to disturbance from ORV use and other recreational activities. Lack of a permit system for education and law enforcement, no night-driving restrictions, and lack of compliance with pet leash requirements would contribute</p>	<p>access to these buffers would be provided at all Seashore beaches and could result in intentional or unintentional noncompliance (i.e., when signs are washed out), which would impact the species. Adverse impacts would also occur due to limited pre-nesting protection outside of the points and spits, and the potential for protective buffers to</p>	<p>season, ORV permit requirements, seasonal night-driving restrictions, and pet and other recreational activity restrictions would all provide benefits in terms of species protection. As there would still be some opportunity for recreational use to come in contact with and impact piping plovers, and the fact that alternative C would still include some level of pedestrian access to</p>	<p>the breeding season from large areas of the Seashore, which would reduce the potential for disturbance to plovers during critical life stages. with ORV permit requirements, seasonal night-driving restriction, and pet and other recreational activities restrictions would all provide benefits in terms of species protection. As there would still be some opportunity for recreational use to come in contact with and impact the species,</p>	<p>pet and other recreational activity restrictions would all provide benefits in terms of species protection. Although there would be benefits from seasonal night-driving restrictions, they would not be as great as other alternatives because driving after dark (until 10:00 p.m.) would still be occurring, even during seasonal restrictions. The potential for adverse impacts would exist from the park-and-stay option under this alternative. As there would still be some</p>	<p>ORV permit requirements, and pet and other recreational activity restrictions would all provide benefits in terms of species protection. As alternative F would provide for more flexible access to various areas of the Seashore, the potential for disturbance to piping plover is</p>

(continued)

**Table 3-4. Impacts of Alternatives on Nonuse Value and Federally Threatened and Endangered Species (Piping Plover, Sea Turtles, and Seabeach Amaranth) (continued)**

No-Action Alternative A	No-Action Alternative B	Action Alternative C	Action Alternative D	Action Alternative E	Action Alternative F
<b>Piping Plover (con't)</b>					
substantially to these adverse impacts.	be reduced during critical life stages of plover chicks.	three Species Management Areas during a portion of the breeding season, impacts to piping plover would be <b>long-term minor adverse</b> .	impacts would be <b>long-term minor adverse</b> .	opportunity for recreational use to come in contact with and impact the species, impacts would be <b>long-term minor to moderate adverse</b> .	increased over alternatives C and D, resulting in <b>long-term minor to moderate adverse impacts</b> .
<b>Sea Turtles</b>					
Overall, resources management activities under alternative A would have <b>long-term moderate benefits</b> due to the protection provided to sea turtles. Overall, ORV and other recreational use under alternative A would result in <b>long-term major adverse impacts</b> to sea turtles due to the	Overall, resource management activities under alternative B would have <b>long-term moderate benefits</b> due to the protection provided to sea turtles. Although additional restrictions and regulations would help lessen some of the impacts from ORV use and other recreational activities, overall, the impacts would be <b>long-term moderate adverse</b> .	Overall, resource management activities under alternative C would have <b>long-term moderate to major beneficial impacts</b> due to the added protection provided to sea turtles. Restrictions placed on nonessential, recreational ORV use under alternative C would provide substantial long-term benefits to sea turtles, including seasonal night driving restrictions that close	Overall, similar to alternative C, management activities under alternative D would result in <b>long-term moderate to major beneficial impacts</b> . While restrictions placed on ORV use under alternative D would provide long-term moderate to major beneficial impacts, similar to alternative C, there would still be some level of adverse impact to sea turtles in areas where ORV use and beach fires are allowed;	Management activities would provide <b>long-term moderate to major beneficial impacts</b> to sea turtles. While additional restrictions and regulations would help lessen some of the impacts from ORVs and other recreational activities, overall, the impacts would be <b>long-term moderate adverse</b> from allowing night driving until 10:00 p.m., and due to increased recreational access throughout the Seashore during the turtle nesting season, including	Overall, resource management activities would provide <b>long-term moderate to major beneficial impacts</b> to sea turtles. While additional restrictions, Such as prohibiting night driving from 9:00 p.m. to 7:00 a.m., and regulations would help lessen some

(continued)

**Table 3-4. Impacts of Alternatives on Nonuse Value and Federally Threatened and Endangered Species (Piping Plover, Sea Turtles, and Seabeach Amaranth) (continued)**

No-Action Alternative A	No-Action Alternative B	Action Alternative C	Action Alternative D	Action Alternative E	Action Alternative F
<b>Sea Turtles (cont.)</b>					
amount of Seashore available for ORV use and the lack of night-driving restrictions.		the beach before dark (7:00 p.m.), some adverse impacts would still occur in areas where their use is allowed. Therefore, overall, ORV and other recreational use would have <b>long-term minor adverse impacts</b> .	therefore, overall impacts from ORV and other recreational use would be <b>long-term minor adverse impacts</b> .	a park-and-stay option for ORVs at selected points and spits.	of the impacts from ORV and other recreational use, overall, the impacts would be <b>long-term minor to moderate adverse</b> , due to not prohibiting night driving prior to 9:00 p.m. and the earlier re-opening of prenesting areas (after shorebird breeding activity has concluded), resulting in increased recreational access throughout the Seashore during the sea turtle nesting season.
<b>Seabeach Amaranth</b>					
Overall, because of the protection of seabeach amaranth habitat and plants under	Overall, because of the protection of seabeach amaranth habitat and plants under alternative B,	Overall, because of the protection of seabeach amaranth habitat and plants under alternative C,	Overall, because of the increased level of protection of seabeach amaranth habitat and plants under alternative	Overall, because of the protection of seabeach amaranth habitat and plants under alternative E, resources management	Overall, because of the protection of seabeach amaranth habitat and plants under

(continued)

**Table 3-4. Impacts of Alternatives on Nonuse Value and Federally Threatened and Endangered Species (Piping Plover, Sea Turtles, and Seabeach Amaranth) (continued)**

No-Action Alternative A	No-Action Alternative B	Action Alternative C	Action Alternative D	Action Alternative E	Action Alternative F
<b>Seabeach Amaranth (cont.)</b>					
<p>alternative A, resources management actions would have <b>long-term minor to moderate beneficial impacts</b>, if plants are detected. Overall, ORV and other recreational use under alternative A would have <b>long-term moderate adverse impacts</b> as plants may go undetected and therefore unprotected from this use.</p>	<p>resources management actions would have <b>long-term minor to moderate beneficial impacts</b>, if plants are detected. Overall, ORV and other recreational use would result in <b>long-term moderate adverse impacts</b>. Slightly more protection would be provided for the species when compared to alternative A, due to shorebird breeding closures being larger and lasting longer.</p>	<p>resources management actions would have <b>long-term moderate beneficial impacts</b> to seabeach amaranth as the establishment of SMAs and increased protection for the species would occur compared to alternatives A and B. Overall, ORV and other recreational use would result in <b>long-term minor to moderate adverse impacts</b>. Because of the establishment of SMAs and protection of approximately 41 miles of beach, the adverse impacts under alternative C would likely be long-term minor to moderate adverse.</p>	<p>D, when compared to other alternatives, resources management actions would have <b>long-term moderate to major beneficial impacts</b>. Overall ORV and other recreational use would result in <b>long-term minor adverse impacts</b>. Because the establishment of SMAs closed to ORVs year-round would protect approximately 41 miles of beach, the adverse impacts under alternative D would be greatly reduced compared to the other alternatives and result in long-term minor adverse impacts.</p>	<p>actions would have <b>long-term minor to moderate beneficial impacts</b> as ORV access to more areas would be allowed during the germination period, than under action alternatives C and D. Overall, ORV and other recreational use would have long-term minor to moderate adverse impacts to seabeach amaranth due to the increased level of recreational access allowed when compared to the other action alternatives.</p>	<p>alternative F, resources management actions would have <b>long-term minor to moderate beneficial impacts</b> as ORV access to more areas would be allowed during the germination period, than under action alternatives C and D. Overall, ORV and other recreational use would be similar to those under alternative E and result in long-term minor to moderate adverse impacts to seabeach amaranth.</p>

NOTE: Impacts based on FEIS (NPS, 2010) Table ES-5. ENVIRONMENTAL IMPACT SUMMARY BY ALTERNATIVE and impact summary tables in Chapter 4.



### **3.2.4 Benefits to Businesses**

The benefits to businesses from the action alternatives are all indirect. The alternatives do not regulate the businesses but rather regulate visitor access to and use of the Seashore. As discussed in Section 3.1.2, secondary impacts are included in benefit-cost analysis if the impacts are large enough to change prices in the secondary market. Without further information on possible changes in prices, NPS chose to include the impacts.

The alternatives may change the number of visitors, the type of visitors, or the spending pattern of visitors relative to the no-action alternatives. Some businesses may benefit from these changes if they serve visitors who prefer the regulation. As part of the business survey, businesses were asked about the change in revenue between 2007 and 2008 and their forecast of the impact from two different regulations on revenue.

Revenue increased between 2007 and 2008 despite the stricter ORV management for some of the businesses. A few of the businesses interviewed as part of the business survey forecast increases in revenue from a regulation similar to Alternative E or F. However, none of the businesses forecast increases in revenue from a regulation similar to Alternative D.

A benefit-cost analysis looks at societal welfare changes not just local changes. If visitors who decide not to visit the Seashore under one of the alternatives make a trip to another beach or engage in an alternative leisure activity in another location, the gains in producer surplus to businesses in the other locations should be included in the benefit-cost calculation. Without additional information on the actions of visitors who decide not to visit the Seashore under the different alternatives, NPS cannot estimate the potential increases in producer surpluses to businesses in other locations.

### **3.2.5 Costs to Visitors**

Visitors who drive ORVs on the beach or who travel with groups who drive ORVs on the beach may experience a loss of welfare from the action alternatives relative to Alternatives A and B. The alternatives regulate driving by location on the beach, the time of day, and the time of year. Under the alternatives, visitors may find that they cannot drive on the part of the beach that they want to during the time they prefer.

These visitors will suffer welfare losses if they are unable to visit the part of the beach they prefer. These visitors may shift to other parts of the Seashore or they may decide not to visit. If the areas that are open become more crowded as a result of the alternatives, this will also cause welfare losses.

As discussed in Section 2.3.2, a survey of vehicle use of beach access ramps produced a mean estimate of 350,000 beach access ramp crossings between April 2009 and November 2009, and 150,000 ramp crossings between December 2009 and March 2010. All of these visitors may be affected by the action alternatives.

The alternatives vary by the dates certain areas of the Seashore close and could be re-opened. The alternatives may also include different species management requirements and different provisions for new ramps, additional parking, bypass routes and pedestrian access. Year to year variations in turtle and bird nesting patterns also complicate any comparisons across the alternatives. The date on which an area can re-open is the earliest possible date subject to resource closures. If resource closures are widespread and long-lasting, areas may open later, leading to smaller difference between some of the more restrictive and less restrictive alternatives than the re-opening dates would imply.

Table 3-5 provides information on conditions in 2009 for ORV users at several of the most popular beach areas that we can use to assess the incremental impact of the action alternatives. The table presents the amount of time various parts of the Seashore were closed in 2009. The columns list clusters of ramps and the rows show the mean estimate of the number of vehicle trips using the ramps in the cluster between April 1 and November 31, 2009, and the percent of total ORV trips over all ramps during the time period. The last row lists the number of days nearby beach areas were closed in 2009 (Alternative B), including both prenesting closures and temporary closures due to bird or turtle nesting activity. We can use these numbers as a proxy for the impact of Alternative B, although the numbers would actually vary from year to year based on yearly variation in bird breeding activity and turtle nest locations. The ramp clusters do not correspond exactly to the beach areas in the third column (the areas for which closure data were available). For example, in the first row of data, the area open to ORVs

around ramps 2 and 4 includes 2.1 miles of beach open to ORVs all year. Although Bodie Island Spit was closed for 136 days over the summer of 2009, there were still areas around ramps 2 and 4 that remained open to ORVs.

In addition, the vehicle trip numbers include the days when some or all of the beach areas served by the ramps were closed. Using the first row of data as an example again, there were an estimated 174,949 vehicle trips on ramps 2 and 4 between April 1 and November 30, 2009. During this time, the Bodie Island Spit was closed between March 23 and August 6. Vehicles using the ramps during this time parked on the other 2.1 miles of open beach.

**Alternative C:** Under Alternative C, Bodie Island Spit, Cape Point, North Ocracoke, and South Point are all closed seasonally to ORVs from March 15 to October 14. Based on historic resource closure dates, these areas would be closed longer under Alternative C than under Alternatives B, E and F. The Frisco and Hatteras village beaches were closed in 2009 as part of a long-standing ORV closure but would only be closed to ORVs between May 15 and September 15 under Alternative B, provided that beach conditions allowed the removal of any safety closures that may occur. Under Alternative C, these beaches would open to ORVs one month later than Alternative B (assuming that beach conditions allowed the removal of any safety closures), but earlier than Alternatives D, E and F. The Hatteras Inlet “rip” would follow a similar closure pattern under Alternatives B, C and E. One mile of shoreline at South Point on Ocracoke would be closed all year under Alternative C, while the area from ramp 72 to the closed part of South Point would open October 14, compared to August 9 in 2009 under Alternative B.

**Alternative D:** Alternative D mandates the most year-round closures of beaches to ORV use. Bodie Island Spit, Cape Point, the Hatteras Inlet “rip”, North Ocracoke, and one mile of shoreline at South Point on Ocracoke are all closed to ORVs year-round.

**Alternative E:** Under Alternative E, Bodie Island Spit and the Hatteras Inlet “rip” are open to ORVs all year, subject to resource closures, similar to Alternative B. At Cape Point, one mile south of ramp 44 also follows the same resource closure pattern as Alternative B. The areas at Cape Point and west to

(new) ramp 47 would be closed to ORVs March 15 to August 31 under Alternative E. Based on protected species activity and resultant resource closures in 2009 (see Table 3-5), Cape Point would have been closed one month longer under Alternative E than under Alternative B in 2009. The Frisco and Hatteras village beaches would be closed all year to ORVs under Alternative E. In 2009, the Frisco and Hatteras village beaches were closed as part of a long-standing ORV closure, but would only be closed between May 15 and September 15 under Alternative B, provided that beach conditions allowed the removal of any safety closures that may occur. North Ocracoke and one mile of shoreline at South Point are both closed to ORV use all year under Alternative E.

**Alternative F:** Under Alternative F, Bodie Island Spit is closed March 15 to September 14, while in 2009 the spit opened on August 6 under Alternative B (0.8 miles at the southwest edge of the Bait Pond is closed all year under Alternative F). Cape Point is designated as a year-round ORV route, and it would follow a similar closure pattern under Alternatives B and F. The Frisco and Hatteras village beaches would be closed from April 1 to October 31 under Alternative F. As described above, these beaches were subject to a longstanding ORV closure in 2009, but would be closed seasonally until September 15 under Alternative B provided that beach conditions allowed the removal of any safety closures. From ramp 55, the ocean beach is open year round for 1.6 miles, but Hatteras Inlet Spit is not designated as an ORV route under Alternative F. North Ocracoke and one mile of shoreline at South Point are both closed to ORV use all year under Alternative F.

Table 3-5. Vehicle Access Ramp Use and Beach Closures to ORVs for Selected Ramps in 2009 under Alternative B

	Ramps 2, 4	Ramps 43, 44, 45	Ramps 49, 55	Ramps 59, 67	Ramps 68, 70, 72
<b>Mean Estimate of Vehicle Trips over Ramps April-Nov. 2009 (Percent of Total)</b>	174,949 (23%)	117,030 (15%)	123,355 (16%)	45,152 (6%)	92,588 (12%)
<b>Days Nearby Beach Areas Closed to ORVs in 2009</b>	Bodie Island Spit closed 136 days (Mar 23 to Aug 6)	Cape Point closed 113 days (Apr 14 to Jul 29)	Frisco and Hatteras village beaches seasonal closure to Sept 15, but in 2009 were closed as part of a long standing safety closure.  Hatteras Inlet "rip" closed 125 days (Mar 11 to Jul 15)	North Ocracoke closed 111 days (May 9 to Aug 28)  Long standing safety closure from 0.25 miles south of ramp 59 to ramp 67	2.7 miles including day use area seasonally closed when campground open  South Point at Ocracoke closed 80 days (May 22 to Aug 9)

Source: RTI International (2010b) and the FEIS Tables ES-2 and ES-2A (NPS 2010).

### 3.2.6 Costs to Businesses

The costs to businesses from the action alternatives are all indirect. The alternatives do not regulate the businesses but rather regulate visitor access to and use of the Seashore. As discussed in Section 3.1.2, according to economic theory secondary impacts are included in benefit-cost analysis if the impacts are large enough to change prices in the secondary market. Without further information on possible changes in prices, NPS chose to include the impacts.

We approximate the change in producer surplus as the change in profits received by businesses resulting from the estimated changes in revenue. As discussed in more detail in the FEIS (NPS 2010), the range of direct revenue impacts was estimated using data from the business survey and from publically available data including the Seashore visitation statistics and other economic data. We estimated the change in producer surplus using average industry specific profit ratios from 2004 to 2007 (IRS, 2010) applied to our estimates of the change in revenue due to the no-action and action alternatives.

Tables 3-6 contains the low, middle and high producer surplus loss estimates for Alternative A, one of the no-action alternatives. Table 3-7 presents the incremental change in producer surplus from the all the action alternatives except Alternative D relative to Alternative A. The mid-point of the range for Alternative A is used as the baseline for the incremental effects. As discussed in more detail in the FEIS, Alternatives B, C, E and F are forecast to have the same range of estimated direct revenue losses. Although there are important differences between Alternatives C, E and F, the existing data are not detailed enough to justify different ranges for each alternative. For example, the impacts to businesses during a season with widespread, long-lasting beach closures could be very similar under all three alternatives. Below, we discuss the qualitative differences between C, E and F that affect the likelihood that each of these alternatives would result in lower or higher impacts.

Tables 3-8 and 3-9 present the incremental impacts of Alternative D relative to Alternatives A and B, respectively. Alternative D is estimated to result in the largest change in producer surplus, between a loss of \$1.30 and \$2.97 million

relative to Alternative A (Table 3-8), and \$0.73 and \$2.40 million relative to Alternative B (Table 3-9).

Although the largest revenue impacts are projected to occur in the food services and drinking places sector, the real estate sector is projected to have the largest producer surplus loss due to the higher profit ratio applied.

Table 3-10 describes qualitatively how the costs to businesses under Alternatives C, E, and F are expected to differ from Alternative B. All three action impacts are expected to result in higher losses than Alternative B. Alternative C is generally expected to result in higher losses than Alternatives E and F. It is more difficult to distinguish between Alternatives E and F. Alternative F offers more ORV access during some times of the year, which may result in lower revenue losses.

The impacts will have the largest impact on businesses in the Seashore villages. Visitors to other parts of the Dare County generally use the beaches in the northern part of the Outer Banks, which are outside the Seashore. Almost all of the businesses in the Seashore villages are small. Small businesses have a harder time absorbing revenue losses and there may be individual businesses that experience major impacts.

### **3.2.7 Costs to NPS**

The action alternatives will also change the cost of managing the Seashore. Table 3-11 provides estimates of the cost to the Seashore of each alternative (NPS 2010). No-action Alternative A generates the smallest costs of all the alternatives, estimated to be \$2,208,850, while the baseline costs for Alternative B are \$3,150,550 (NPS 2010). The action alternatives are all more expensive to manage than the no-action alternatives. In order of cost, Alternative E is the most expensive, followed by Alternative F, Alternative C, and Alternative D.

Table 3-6. Estimated Change in Producer Surplus for Alternative A (in millions of dollars)

Description	IMPLAN Codes	Corporate Table Template Code	Direct Impacts			Profit Ratios	Producer Surplus		
			Low	Mid	High		Low	Mid	High
Fishing	16	114	\$0.20	\$0.00	-\$0.20	5.05%	\$0.01	\$0.00	-\$0.01
Real estate*	431	531,210	\$3.23	\$0.00	-\$3.23	8.87%	\$0.29	\$0.00	-\$0.29
Hotels and motels—including casino hotels	479	721	\$0.62	\$0.00	-\$0.62	5.23%	\$0.03	\$0.00	-\$0.03
Other amusement—gambling—and recreation industry	478	713	\$0.32	\$0.00	-\$0.32	3.06%	\$0.01	\$0.00	-\$0.01
Food services and drinking places	481	722	\$4.11	\$0.00	-\$4.11	3.98%	\$0.16	\$0.00	-\$0.16
Food and beverage stores	405	445	\$0.62	\$0.00	-\$0.62	1.65%	\$0.01	\$0.00	-\$0.01
Gasoline stations	407	447	\$0.41	\$0.00	-\$0.41	0.62%	\$0.00	\$0.00	\$0.00
Sporting goods—hobby—book and music stores	409	451	\$0.27	\$0.00	-\$0.27	1.86%	\$0.01	\$0.00	-\$0.01
Other accommodations	480	721	\$0.21	\$0.00	-\$0.21	5.23%	\$0.01	\$0.00	-\$0.01
Totals			\$9.99	\$0.00	-\$9.99		\$0.53	\$0.00	-\$0.53

\*Real estate modified to reflect portion of output attributable to tourism.

Source: Impacts based on FEIS (NPS, 2010) Table ES-5. ENVIRONMENTAL IMPACT SUMMARY BY ALTERNATIVE and impact summary tables in Chapter 4 and Internal Revenue Service, U.S. Department of Treasury. 2010. "Corporation Source Book: Data Files 2004-2007." <http://www.irs.gov/taxstats/article/0,,id=167415,00.html>. (May, 2 2010).



**Table 3-7. Estimated Incremental Change in Producer Surplus for Alternatives B, C, E, and F Relative to Alternative A Mid Estimate (in millions of dollars)**

Description	IMPLAN Codes	Corporate Table Template Code	Direct Impacts			Profit Ratios	Producer Surplus		
			Low	Mid	High		Low	Mid	High
Fishing	16	114	\$0.0	-\$1.0	-\$2.0	5.05%	\$0.00	-\$0.05	-\$0.10
Real estate*	431	531,210	\$0.0	-\$3.2	-\$6.5	8.87%	\$0.00	-\$0.29	-\$0.57
Hotels and motels—including casino hotels	479	721	\$0.0	-\$0.6	-\$1.2	5.23%	\$0.00	-\$0.03	-\$0.06
Other amusement—gambling—and recreation industry	478	713	\$0.0	-\$0.3	-\$0.6	3.06%	\$0.00	-\$0.01	-\$0.02
Food services and drinking places	481	722	\$0.0	-\$4.1	-\$8.2	3.98%	\$0.00	-\$0.16	-\$0.33
Food and beverage stores	405	445	\$0.0	-\$0.6	-\$1.2	1.65%	\$0.00	-\$0.01	-\$0.02
Gasoline stations	407	447	\$0.0	-\$0.4	-\$0.8	0.62%	\$0.00	\$0.00	-\$0.01
Sporting goods—hobby—book and music stores	409	451	\$0.0	-\$0.3	-\$0.5	1.86%	\$0.00	-\$0.01	-\$0.01
Other accommodations	480	721	\$0.0	-\$0.2	-\$0.4	5.23%	\$0.00	-\$0.01	-\$0.02
Totals			\$0.0	-\$10.8	-\$21.5		\$0.00	-\$0.57	-\$1.14

\*Real estate modified to reflect portion of output attributable to tourism.

Source: Impacts based on FEIS (NPS, 2010) Table ES-5. ENVIRONMENTAL IMPACT SUMMARY BY ALTERNATIVE and impact summary tables in Chapter 4 and Internal Revenue Service, U.S. Department of Treasury. 2010. "Corporation Source Book: Data Files 2004-2007." <http://www.irs.gov/taxstats/article/0,,id=167415,00.htm>. (May, 2 2010).

**Table 3-8. Estimated Incremental Change in Producer Surplus for Alternative D Relative to Alternative A Mid Estimate (in millions of dollars)**

Description	IMPLAN Codes	Corporate Table Template Code	Direct Impacts			Profit Ratios	Producer Surplus		
			Low	Mid	High		Low	Mid	High
Fishing	16	114	\$0.0	-\$1.0	-\$2.0	5.05%	\$0.00	-\$0.05	-\$0.10
Real estate*	431	531,210	-\$8.1	-\$12.9	-\$17.8	8.87%	-\$0.72	-\$1.15	-\$1.58
Hotels and motels- including casino hotels	479	721	-\$1.5	-\$2.5	-\$3.4	5.23%	-\$0.08	-\$0.13	-\$0.18
Other amusement- gambling- and recreation ind	478	713	-\$0.8	-\$1.3	-\$1.8	3.06%	-\$0.02	-\$0.04	-\$0.06
Food services and drinking places	481	722	-\$10.3	-\$16.4	-\$22.6	3.98%	-\$0.41	-\$0.65	-\$0.90
Food and beverage stores	405	445	-\$1.5	-\$2.5	-\$3.4	1.65%	-\$0.03	-\$0.04	-\$0.06
Gasoline stations	407	447	-\$1.0	-\$1.6	-\$2.3	0.62%	-\$0.01	-\$0.01	-\$0.01
Sporting goods- hobby- book and music stores	409	451	-\$0.8	-\$1.3	-\$1.9	1.86%	-\$0.01	-\$0.02	-\$0.04
Other accommodations	480	721	-\$0.5	-\$0.8	-\$1.1	5.23%	-\$0.03	-\$0.04	-\$0.06
Totals			-\$24.5	-\$40.4	-\$56.3		-\$1.30	-\$2.14	-\$2.97

Source: Impacts based on FEIS (NPS, 2010) Table ES-5. ENVIRONMENTAL IMPACT SUMMARY BY ALTERNATIVE and impact summary tables in Chapter 4 and Internal Revenue Service, U.S. Department of Treasury. 2010. "Corporation Source Book: Data Files 2004-2007." <http://www.irs.gov/taxstats/article/0,,id=167415,00.html>. (May, 2 2010).

**Table 3-9. Estimated Incremental Change in Producer Surplus for Alternative D Relative to Alternative B Mid Estimate (in millions of dollars)**

Description	IMPLAN Codes	Corporate Table Template Code	Change in Direct Impacts			Profit Ratios	Change in Producer Surplus		
			Low	Mid	High		Low	Mid	High
Fishing	16	114	\$1.0	\$0.0	-\$1.0	5.05%	\$0.05	\$0.00	-\$0.05
Real estate*	431	531210	-\$4.9	-\$9.7	-\$14.5	8.87%	-\$0.43	-\$0.86	-\$1.29
Hotels and motels- including casino hotels	479	721	-\$0.9	-\$1.8	-\$2.8	5.23%	-\$0.05	-\$0.10	-\$0.14
Other amusement- gambling- and recreation ind	478	713	-\$0.4	-\$1.0	-\$1.5	3.06%	-\$0.01	-\$0.03	-\$0.05
Food services and drinking places	481	722	-\$6.2	-\$12.3	-\$18.5	3.98%	-\$0.25	-\$0.49	-\$0.74
Food and beverage stores	405	445	-\$0.9	-\$1.9	-\$2.8	1.65%	-\$0.01	-\$0.03	-\$0.05
Gasoline stations	407	447	-\$0.6	-\$1.2	-\$1.9	0.62%	\$0.00	-\$0.01	-\$0.01
Sporting goods- hobby- book and music stores	409	451	-\$0.5	-\$1.1	-\$1.6	1.86%	-\$0.01	-\$0.02	-\$0.03
Other accommodations	480	721	-\$0.3	-\$0.6	-\$0.9	5.23%	-\$0.02	-\$0.03	-\$0.05
Totals	Total		-\$13.8	-\$29.6	-\$45.5		-\$0.73	-\$1.57	-\$2.40

\*Real estate modified to reflect portion of output attributable to tourism.

Table 3-10. Qualitative Impacts of Alternatives C, E, and F Relative to Alternative B

Alternative	Certain Beach Closures	Buffer Width and Uncertain Closures	Additional Changes	Relative Impact
Alternative C	Villages and Species Management Areas closed to ORVs from March 15 to October 14, increasing beach closures by approximately 2 to 4 months in Species Management Areas and 3 months in villages.	Buffers for breeding and nesting plovers increase from 50 m to 75 m, and buffers in some areas greater than Alternative B, increasing the likelihood of closed access corridors.	Permits required. Additional parking, ramps, and interdunal road changes to provide improved access to open areas.	Impacts to businesses expected to be more negative than Alternatives B, E and F.
Alternative E	Most Species Management Areas closed March 15 to August 31 and most village beaches closed April 1 to October 31, increasing beach closures by 0.5 to 2.5 months in Species Management Areas and 3 months in villages. Some villages and Species Management Areas closed to ORVs year round.	Buffers for breeding and nesting plovers increase from 50 m to 75 m, and buffers in some areas greater than Alternative B, increasing the likelihood of closed access corridors.	Permits required. Additional parking, ramps, and interdunal road changes to provide improved access to open areas.	Impacts to businesses expected to be more negative than Alternative B, less negative than Alternative C, and uncertain relative to F.
Alternative F	Villages closed April 1 through October 31, increasing beach closures by 3 months in villages. Species Management Areas would be either year-round ORV routes, seasonal ORV routes (Bodie spit—1.5 to 3 months) or vehicle free (Hatteras Inlet and North Ocracoke—8 months).	Buffers for breeding and nesting plovers increase from 50 m to 75 m, increasing the likelihood of closed access corridors during plovers breeding and nesting.	Permits required. Changes to parking, ramps, trails and interdunal roads to provide improved access to open areas.	Impacts to businesses expected to be more negative than Alternative B, less negative than Alternative C, and uncertain relative to E. To the extent that the greater visitor experience opportunities in Alternative F encourage increased visitation, these negative impacts to businesses would lessen.

NOTE: Impacts based on FEIS (NPS, 2010) Table ES-5. ENVIRONMENTAL IMPACT SUMMARY BY ALTERNATIVE and impact summary tables in Chapter 4.

**Table 3-11. Incremental Costs to NPS of the Action Alternatives Relative to the No Action Alternatives**

<b>Action Alternative</b>	<b>Incremental Cost Relative to Alternative A</b>	<b>Incremental Cost Relative to Alternative B</b>
Alternative C	\$974,450	\$32,750
Alternative D	\$942,100	\$400
Alternative E	\$1,707,650	\$765,950
Alternative F	\$1,508,150	\$566,450

NOTE: Impacts based on FEIS (NPS, 2010) Table ES-5. ENVIRONMENTAL IMPACT SUMMARY BY ALTERNATIVE and impact summary tables in Chapter 4.

### 3.3 SUMMARY

The action alternatives offer a variety of management options for ORV use in the Seashore. Each alternative generates both benefits and costs to society overall. Table 3-12 provides a qualitative ranking of the action alternatives relative to the no-action alternatives for the different categories of benefits and costs. Calculating quantitative estimates of net benefits is not possible for most of the categories evaluated for this study. For each category, qualitative and quantitative information was combined to provide a picture of the possible range of benefits and costs.

The unprecedented economic conditions that have overlapped the imposition of the Consent Decree along with the more usual uncertainty forecasting visitation changes render quantitative estimates by themselves less useful. The report provides quantitative ranges for the possible impacts on business revenue. The ranges are large in part because of the potential under any of the alternatives for large year to year differences caused by differences in nesting patterns and the weather. Under different nesting patterns, either Alternative E or F may result in the smallest revenue change. In a year with many nests and long lasting beach closures, all the alternatives may result in similar impacts during the spring, summer and fall. Furthermore, when we look at the net benefits to the U.S. as a whole, the quantitative estimates of welfare gain or loss to businesses outside the Outer Banks would need to be considered for an accurate analysis.

**Table 3-12. Qualitative Ranking of Action Alternatives Relative to No-Action Alternatives for Benefit and Cost Categories from Highest to Lowest**

	<b>Alternative C</b>	<b>Alternative D</b>	<b>Alternative E</b>	<b>Alternative F</b>
Benefits to visitors who want ORV-free experience	Third highest benefit	Highest benefit	Fourth highest benefit	Second highest benefit
Benefits to members of the general public with value for the Seashore's natural resources	Second highest benefit	Highest benefit	Fourth highest benefit	Third highest benefit
Benefits to businesses who serve visitors who want ORV-free experience	Third highest benefit	Highest benefit	Fourth highest benefit	Second highest benefit
Benefits to businesses in other areas outside the Seashore that serve ORV visitors	Third highest benefit	Highest benefit	Fourth highest benefit	Second highest benefit
Benefits to visitors who want ORV experience	Third highest benefit	Fourth highest benefit	Possible highest benefit	Possible highest benefit
Benefits to businesses who serve visitors who want ORV experience	Third highest benefit	Fourth highest benefit	Possible highest benefit	Possible highest benefit
Costs to the National Park Service	Second lowest cost	Lowest cost	Highest cost	Third lowest cost

The business impacts will fall most heavily on the Seashore villages and on small businesses. Some businesses north of the Seashore will be impacted by changes in ORV use; however, the impact on the villages north of the Seashore will be cushioned by the larger economic base of visitors who come primarily to use the beaches north of the Seashore. The Seashore villages depend most directly on visitors to the Seashore. Even if the overall impacts on Dare and Hyde counties or on the Seashore villages as a whole turn out to be smaller than anticipated, some individual businesses that depend on visitors to a particular beach access ramp may experience major impacts.

In general, Alternative D is likely to provide the greatest benefits for visitors who want an ORV-free experience and the members of the general public who value the Seashore's natural resources. Alternative D will most likely impose the largest costs on businesses that serve ORV visitors. It is difficult

to judge whether Alternative E or F will impose the lowest cost on visitors who prefer to use ORVs.

# 4 Small Entity Impact Analysis

Regulations potentially affect the economic welfare of all businesses, organizations, or governmental jurisdictions, large and small. However, because small entities may have special problems in complying with such regulations, the Regulatory Flexibility Act of 1980, as amended in 1996 (RFA), requires special consideration be given to these entities during the regulatory process.

To fulfill these requirements, agencies perform a review to determine whether a proposed or final rule will have a significant economic impact on a substantial number of small entities. This section identifies the small entities potentially affected by the Cape Hatteras National Seashore final ORV rule and certifies that no small businesses are directly impacted by the rule.

---

## 4.1 IDENTIFYING SMALL ENTITIES

The RFA applies to a wide range of small entities, including small businesses, not-for-profit organizations, and small governmental jurisdictions. The Small Business Administration (SBA) has developed size standards to carry out the purposes of the Small Business Act and those size standards can be found in 13 C.F.R., section 121.201. Section 601(5) of the RFA defines small governmental jurisdictions as governments of cities, counties, towns, townships, villages, school districts, or special districts with a population of less than 50,000. In 2008, Dare and Hyde Counties contained 768 establishments in affected industries, with 222 located in Hatteras villages (InfoUSA, 2008). Assuming each location is an independent



company, 95% of these could be small entities of the ROI, and 98% could be small entities in the Seashore villages (U.S. SBA 2008).

NPS found no small entities that were potentially directly affected by the rule. The final rule does not directly regulate any small entities within the meaning of the RFA. The final rule regulates off-road vehicle (ORV) access to the beaches in the Seashore by visitors. Visitors would be required to obtain an ORV permit to access the ORV routes and trails designated by the rule. Businesses would not be required to obtain an ORV permit to use the designated ORV routes and trails while conducting their business. Businesses, including commercial fishermen, currently operate under Special Use Permits allowing them to operate in the Seashore. This system would continue unchanged. Because some visitors may change their visitation patterns based on the final rule, the final rule will indirectly affect businesses that cater to Seashore visitors. NPS has evaluated these indirect effects in the benefit-cost analysis and in the socioeconomic analysis in the DEIS and FEIS. However, the RFA does not require agencies to analyze the indirect effects of final rules on small entities, absent direct effects on them, in a regulatory flexibility analysis. NPS would continue to regulate the actions of businesses, including commercial fishermen, that use the Seashore through Special Use Permits issued to businesses, NPS would not regulate the actions of these entities through the final rule.

---

## **4.2 CERTIFICATION**

NPS finds that the final rule will not have a significant impact on a substantial number of small entities. No entities, small or large, are directly regulated by the final rule. According to the RFA and subsequent court decisions, NPS must assess the impacts on directly regulated entities, but is not required to analyze in a regulatory flexibility analysis the indirect effects on small entities resulting from rules (see Small Business Administration [2003] for a discussion of indirect versus direct impacts).

# References

Bin, O., C. Landry, C.L. Ellis, and H. Vogelsong. 2005. "Some Consumer Surplus Estimates for North Carolina Beaches." *Marine Resource Economics* 20: 145–161.

Boardman, A.E., Greenberg, D.H., Vining, A.R. and Weimer, D.L. 1996. *Cost-Benefit Analysis: Concepts and Practice*. Upper Saddle River, NJ: Prentice Hall.

Bureau of Labor Statistics. September 2, 2009. "Local Area Unemployment Statistics." <http://www.bls.gov/lau>.

InfoUSA. 2008. Reference USA. <http://www.referenceusa.com/>.

Internal Revenue Service, U.S. Department of Treasury. May 2, 2010. "Corporation Source Book: Data Files 2004-2007." <http://www.irs.gov/taxstats/article/0,,id=167415,00.html>.

Minnesota IMPLAN Group, Inc. (MIG) 2004. *IMPLAN Professional, Version 2.0 Social Accounting and Impact Analysis Software: Data Guide*. Third edition. Stillwater, MN: MIG.

North Carolina Department of Commerce. 2009. "Economic Impact of Travel in North Carolina Based on Visitor Spending." <http://www.nccommerce.com/en/TourismServices/PromoteTravelAndTourismIndustry/TourismResearch/visitorspending.htm>.

North Carolina Department of Commerce. September 2, 2009. "Economic Impact of Travel in North Carolina Based on Visitor Spending." <http://www.nccommerce.com/en/TourismServices/PromoteTravelAndTourismIndustry/TourismResearch/visitorspending.htm>.

- North Carolina Marine Fisheries, North Carolina Wildlife Resources Commission. 2009. "Coastal Recreational Fishing License Sales Update."  
[http://www.ncfisheries.net/CRFL/downloads/CRFLSalesReportMay\\_31\\_2009.pdf](http://www.ncfisheries.net/CRFL/downloads/CRFLSalesReportMay_31_2009.pdf).
- National Park Service. August 2007. "The Creation and Establishment of Cape Hatteras National Seashore." Cape Hatteras National Seashore Administrative History. Prepared by Cameron Binkley, Southeast Regional Office, Cultural Resource Division.
- National Park Service Public Uses Statistics Office.  
<http://www.nature.nps.gov/stats/NPS>. Accessed July 2008.
- National Park Service. November 2010. "Final Environmental Impact Statement for the Cape Hatteras National Seashore Off-Road Vehicle Management Plan (FEIS)."
- North Carolina Office of State Budget and Management. September 1, 2009. "Projected Annual County Population Totals." [http://www.osbm.state.nc.us/ncosbm/facts\\_and\\_figures/socioeconomic\\_data/population\\_estimates.shtm](http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/population_estimates.shtm)
- Parsons, G. R., and D. M. Massey. 2003. "A RUM Model of Beach Recreation." In N. Hanley, D. Shaw, and R. Wright, (eds.), *The New Economics of Outdoor Recreation*. Edward Elgar Publishing.
- RTI International. 2010a. "Business Survey: Off-Road Vehicle Management, Cape Hatteras National Seashore." Prepared for the National Park Service, Environmental Quality Division. Research Triangle Park, NC: RTI.
- RTI International. 2010b. "Cape Hatteras National Seashore Vehicle Count." Prepared for the National Park Service, Environmental Quality Division. Research Triangle Park, NC: RTI.
- RealtyTrac. 2008. "Properties with Foreclosure Filings in October, 2008: North Carolina."  
<http://www.realtytrac.com/U.S>. Accessed December 10, 2008.
- U.S. Census Bureau. 2000a; generated by RTI International; using American FactFinder; "Census 2000 Summary File 3 (SF3)—Sample Data." <http://factfinder.census.gov>. (December 5, 2008).

- U.S. Census Bureau. 2002. "County Business Patterns: 2000, Zip Code Totals File."  
[http://www.census.gov/econ/cbp/download/00\\_data/index.htm](http://www.census.gov/econ/cbp/download/00_data/index.htm).
- U.S. Census Bureau, Population Division. 2009a. "HU-EST2008-37: Housing Unit Estimates for Counties of North Carolina April 1/2000 to July 1/2008."  
<http://www.census.gov/popest/housing/files/HU-EST2008-37.CSV>.
- U.S. Census Bureau, Population Division. 2009b. "HU-EST2008-37: Housing Unit Estimates for Counties of North Carolina April 1/2000 to July 1/2008."  
<http://www.census.gov/popest/housing/files/HU-EST2008-37.CSV>.
- U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2008. "2006 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation."  
<http://www.census.gov/prod/www/abs/fishing.html>.
- U.S. Small Business Administration (SBA). May 2003. *A Guide for Government Agencies: How to Comply with the Regulatory Flexibility Act*. Washington, DC: SBA.
- U.S. Small Business Administration (SBA). 2008. Table of Small Business Size Standards Matched to North American Industry Classification System Codes. Effective March 11, 2008.  
<http://www.sba.gov/services/contractingopportunities/sizestandardstoppers/size/index.html>.
- Whitehead, J.C. 1993. "Total Economic Values for Coastal and Marine Wildlife: Specification, Validity, and Valuation Issues." *Marine Resource Economics* 8: 119-132.

**Billing Code 4310-X6**

**DEPARTMENT OF THE INTERIOR**

**National Park Service**

**36 CFR Part 7**

**RIN 1024-AD85**

**Special Regulations, Areas of the National Park System, Cape Hatteras National Seashore**

**AGENCY:** National Park Service, Interior.

**ACTION:** Final rule.

**SUMMARY:** This rule designates routes where off-road vehicles (ORVs) may be used within Cape Hatteras National Seashore (Seashore), North Carolina. Under NPS general regulations, the operation of motor vehicles off of roads within areas of the national park system is prohibited unless otherwise provided for by special regulation. This rule would authorize ORV use at the Seashore, manage it to protect and preserve natural and cultural resources and natural processes, and provide a variety of safe visitor experiences while minimizing conflicts among various users.

**DATES:** This rule becomes effective on February 15, 2012.

**FOR FURTHER INFORMATION CONTACT:** Mike Murray, Superintendent, Cape Hatteras National Seashore, 1401 National Park Drive, Manteo, North Carolina 27954. Phone: (252) 473-2111 (ext 148).

**SUPPLEMENTARY INFORMATION:**

**Background**

**Description of Cape Hatteras National Seashore**

Officially established in 1937 along the Outer Banks of North Carolina, Cape Hatteras is the nation's first national seashore. Consisting of more than 30,000 acres distributed along approximately 67 miles of shoreline, the Seashore is part of a dynamic barrier island system.

The Seashore serves as a popular recreation destination where visitors participate in a variety of recreational activities. The Seashore also contains important wildlife habitat created by the Seashore's dynamic environmental processes. Several species listed under the Endangered Species Act (ESA), including the piping plover, seabeach amaranth, and three species of sea turtles, are found within the park.

### **Authority and Jurisdiction**

In enacting the National Park Service Organic Act of 1916 (Organic Act) (16 U.S.C. 1 et seq.), Congress granted the NPS broad authority to regulate the use of areas under its jurisdiction. Section 3 of the Organic Act specifically authorizes the Secretary of the Interior, acting through the NPS, to “make and publish such rules and regulations as he may deem necessary or proper for the use and management of the parks . . . .”

### **Off-Road Motor Vehicle Regulation**

Executive Order (E.O.) 11644, Use of Off-Road Vehicles on the Public Lands, was issued in 1972 in response to the widespread and rapidly increasing off-road driving on public lands “often for legitimate purposes but also in frequent conflict with wise land and resource management practices, environmental values, and other types of recreational activity.” E.O. 11644 was amended by E.O. 11989 in 1977. These executive orders require federal agencies that allow motorized vehicle use in off-road areas to designate specific areas or routes on public lands where the use of motorized vehicles may be permitted.

Specifically, section 3 of E.O. 11644 requires agencies to develop and issue regulations and administrative instructions to provide for administrative designation of the specific areas or trails on public lands on which the use of off-road vehicles may be permitted, and areas in which the use of off-road vehicles is prohibited. Those regulations are to direct that the designation of such areas and trails be based upon the protection of the resources of the public lands, promotion of the safety of all users of those lands, and minimization of conflicts among the various uses of those lands. The regulations also are to require that such areas and trails-

(1) Be located to minimize damage to soil, watershed, vegetation, or other resources of the public lands.

(2) Be located to minimize harassment of wildlife or significant disruption of wildlife habitats.

(3) Be located to minimize conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and to ensure the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors.

(4) Not be located in officially designated Wilderness Areas or Primitive Areas. Areas and trails shall be located in areas of the National Park system, Natural Areas, or National Wildlife Refuges and Game Ranges only if the respective agency head determines that off-road vehicle use in such locations will not adversely affect their natural, aesthetic, or scenic values.

The NPS regulation at 36 CFR § 4.10(b) implements the E.O.s and requires that routes and areas designated for ORV use be promulgated as special regulations and that the designation of routes and areas shall comply with 36 CFR § 1.5 and E.O. 11644. It also states that such routes and areas may be designated only in national recreation areas, national seashores, national

lakeshores, and national preserves. The final rule is consistent with these authorities and with NPS Management Policies 2006, available at: <http://www.nps.gov/policy/MP2006.pdf>

### **ORV Use at Cape Hatteras National Seashore**

Following the establishment of the Seashore in 1937, beach driving was primarily for the purpose of transportation, not recreation. Because the area was sparsely populated, the number of ORVs on the beach was much smaller than it is today. The paving of NC Highway 12, the completion of the Bonner Bridge connecting Bodie and Hatteras islands in 1963, and the introduction of the State of North Carolina ferry system to Ocracoke Island facilitated visitor access to the sound and ocean beaches. Improved access, increased population, and the popularity of the sport utility vehicle have resulted in a dramatic increase in vehicle use on Seashore beaches.

Since the 1970s, ORV use at the Seashore has been managed through various draft or proposed plans, none were completed or published as a special regulation as required by 36 CFR § 4.10(b). Motivated in part by a decline in most beach nesting bird populations on the Seashore since the 1990s, in July 2007 the NPS completed the Cape Hatteras National Seashore Interim Protected Species Management Strategy/Environmental Assessment (Interim Strategy) to provide resource protection guidance with respect to ORVs and other human disturbance until the long-term ORV management plan and regulation could be completed. In October 2007, a lawsuit was filed by Defenders of Wildlife and the National Audubon Society against the NPS and the U.S. Fish and Wildlife Service, challenging the Interim Strategy. The lawsuit alleged the federal defendants failed to implement an adequate plan to govern off-road vehicle use at the Seashore that would protect the Seashore's natural resources while minimizing conflicts with other users, and that the federal defendants failed to comply with the requirements of the E.O.s



and NPS regulations regarding ORV use. The lawsuit was resolved in April 2008 by a consent decree agreed to by the plaintiffs, the NPS, and the intervenors, Dare and Hyde counties and a coalition of local ORV and fishing groups. ORV use is currently managed pursuant to the consent decree, which also established deadlines of December 31, 2010 and April 1, 2011, respectively, for completion of an ORV management plan/EIS and a final special regulation. On December, 20 2010, the Cape Hatteras ORV Management Plan/Final Environmental Impact Statement (plan/FEIS) was completed, and the Record of Decision (ROD) selecting the NPS Preferred Alternative was signed by the NPS Southeast Regional Director. The public was informed of the availability of the plan/FEIS and ROD through notice in the *Federal Register* on December 28, 2010. The plan/FEIS, the ROD, and other supporting documentation can be found online at the NPS Planning Environment and Public Comment (PEPC) website at <http://www.parkplanning.nps.gov/caha>. In late March 2011, the NPS notified the parties to the litigation and the U.S. District Court for Eastern District of North Carolina (Court) that the final rule would not be completed by the April 1, 2011, consent decree deadline. On April 12, 2011, the Court issued an order modifying the consent decree, extending the deadline for promulgation of the final rule until **November 15, 2011**.

#### Notice of Proposed Rulemaking

On July 6, 2011, the NPS published a Notice of Proposed Rulemaking for the management of off-road vehicles at Cape Hatteras National Seashore (76 FR 39350). On July 6, 2011, the NPS also published the “Benefit-Cost Analysis of Proposed ORV Use Regulations in Cape Hatteras National Seashore” online at the Seashore’s public planning website at <http://www.parkplanning.nps.gov/caha>.

The proposed rule for off-road vehicle management was based on the Selected Action as described in the Record of Decision (ROD) for the Cape Hatteras ORV Plan/Final Environmental Impact Statement. The proposed rule was available for public comment from July 6, 2011 through September 6, 2011. However, Hurricane Irene made landfall in the area of the Seashore on Saturday August 27, 2011, resulting in widespread damage along the Outer Banks of North Carolina and along the east coast into New England. Because the hurricane may have prevented some affected persons from commenting on the rule by the September 6 deadline, the NPS reopened the public comment period on September 9, 2011, and extended the deadline to midnight on September 19, 2011.

### **Summary of and Responses to Public Comments**

Comments were accepted through the mail, hand delivery, and through the Federal eRulemaking Portal at <http://www.regulations.gov>. A total of 21,302 comment documents were received. A summary of comments and NPS responses is provided below.

1. *Comment:* By allowing ORV use at the Seashore, the proposed rule fails to meet the mandates of the National Park Service Organic Act of 1916 of preserving and protecting flora, fauna, historic objects, and scenery.

*Response:* The NPS and the courts have consistently interpreted the NPS Organic Act and its amendments as providing that resource conservation shall predominate over visitor recreation, in the event of a conflict between the two. However, the Organic Act gives NPS broad authority and discretion to manage these sometimes conflicting goals and to determine how visitor activities, including recreational activities, may be managed to avoid or minimize impacts to natural and cultural resources. The General Authorities Act, which amended the Organic Act, requires NPS to manage all units as part of a single National Park System managed for the

purpose set out in the Organic Act. Other laws and policies also support NPS's decision to manage recreational use at the Seashore. The laws also give the NPS the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impact does not constitute impairment of the affected resources and values. (NPS Management Policies 2006, Section 1.4.3).

2. *Comment:* By allowing ORV use on large portions of the Seashore, the proposed rule fails to comply with the Seashore's enabling legislation, which said that no plan for the convenience of visitors shall be undertaken that is incompatible with the preservation of the park's unique flora and fauna and physiographic conditions.

*Response:* The Seashore's enabling legislation states in 16 U.S.C. § 459a-1 that "the administration, protection, and development" of the Seashore shall be exercised "subject to the provisions of the NPS Organic Act. Accordingly, recreation must be managed to provide for resource conservation. The enabling legislation does not expressly mandate or authorize ORV use nor provide for recreational activities in a way that would affect NPS's duty to manage those activities so as to avoid impairment of resources, to avoid or minimize unacceptable resource impacts, or to strive to restore the integrity of park resources that have been damaged or compromised in the past (as provided for by the NPS Management Policies). The laws do give the Service the management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, so long as the impact does not constitute impairment of the affected resources and values" (NPS Management Policies Section 1.4.3). The Selected Action, Alternative F, upon which the rule is based, is consistent with this mandate, and is also consistent with the enabling legislation's mandate to preserve the unique flora and fauna and physiographic conditions. Among other things, it specifically provides for

actions to preserve sensitive and protected species during important lifecycle stages, thus ensuring their preservation.

3. *Comment:* Implementing ORV restrictions such as vehicle-free areas is in conflict with Section 3 of E.O. 11644 because they severely limit the variety of access opportunities available for visitors and increase the potential for conflicts among users in the areas that remain open to recreational use.

*Response:* Section 3 of E.O. 11644 states that the designation of ORV routes “will be based upon the protection of the resources of the public lands, promotion of the safety of all users of those lands, and minimization of conflicts among the various uses of those lands.” It does not require the agency to provide for a variety of access opportunities through the designation of ORV routes. However, part of the purpose of the ORV Management Plan was “to provide a variety of visitor use experiences while minimizing conflicts among various users”, which the NPS believes the plan and rule have accomplished. This rule designates more than half of the mileage in the Seashore as seasonal or year-round ORV routes, providing a substantial amount of vehicular access. The remaining mileage would be closed to ORV use, which provides a more primitive, vehicle-free visitor experience at the Seashore. The rule also includes measures such as carrying capacity restrictions, reduced speed limits, and parking requirements to reduce the potential for conflicts among Seashore visitors.

4. *Comment:* This regulation conflicts with E.O. 11644 and E.O. 11989, which allow the designation of ORV routes in areas of the national park system only if the agency determines that off-road vehicle use in such locations will not adversely affect their natural, aesthetic, or scenic values. Driving on the beach clearly adversely impacts these values of the Seashore.

*Response:* This regulation is consistent with E.O. 11644 and E.O. 11989 as explained in the “Compliance with Other Laws and Executive Orders” section of this rule.

5. *Comment:* All ORVs should be banned within the Seashore.

*Response:* This rule implements the December 2010 ROD, which allowed for continued ORV use. ORV use is a historical use at the Seashore that has been accounted for in various planning documents, including Seashore’s 1984 General Management Plan, which states, “Selected beaches will continue to be open for ORV recreational driving and in conjunction with surf fishing in accordance with the existing use restrictions”. Furthermore, prohibition of ORV use at the Seashore would not meet the purpose, need, and objectives of the ORV management plan/EIS or rule. The purpose of the plan is to “develop regulations and procedures that carefully manage ORV use/access in the Seashore to protect and preserve natural and cultural resources and natural processes, provide a variety of visitor use experiences while minimizing conflicts among various users, and promote the safety of all visitors....” ORV use, if effectively managed, provides convenient access for many appropriate visitor activities at some popular beach sites including, for example, activities that use vehicles to transport substantial amounts of gear for the activity. Prohibition, rather than management, of ORV use could substantially diminish such visitor experience opportunities. Therefore prohibition of all ORV use would not have met the plan need.

6. *Comment:* The proposed rule should refer to the Seashore as "Cape Hatteras National Seashore Recreational Area" because this is the name that was established through the enabling legislation. The name of the Seashore cannot be changed except by an act of Congress, and removing "Recreational Area" from the name changes the original purpose of the Seashore.

*Response:* On June 29, 1940, Congress amended the 1937 authorizing legislation for “Cape Hatteras National Seashore” to permit hunting. The same amendment also changed the formal title of the park to “Cape Hatteras National Seashore Recreational Area,” in order to distinguish it from more traditional types of parks where all hunting was generally prohibited, and avoid setting a precedent for other parks. The NPS had already defined a “national seashore” as a recreational area in its 1937 brochure explaining the *Park, Parkway, and Recreational Study Act* and the anticipated recreational purposes of the park were established by Congress through Acting Secretary Chapman’s letter to the House Committee on Public Lands. Thus, including the term “recreational area” in the title was redundant. In 1954 the NPS authorized the original park name (“national seashore”) to be used for all administrative purposes except for formal memoranda and documents requiring the full legal name. Subsequently, the term “recreational area” fell from use in most official references to the park. In 1961, Congress authorized Cape Cod in Massachusetts as the second “national seashore” and subsequently created eight more “national seashores” between 1962 and 1975 for a total of ten. All such park units that followed Cape Hatteras were officially named “national seashores.” Since 1962, Cape Hatteras has been referred to as “national seashore” in all Congressional legislation and “national seashore” has been the standard nomenclature for this type of park. In any event, this nomenclature question is irrelevant to this regulation or the ORV plan. The General Authorities Act of 1970 and the 1978 Redwoods Amendment expressly clarified that all units of the National Park System are to be managed to the same statutory standards and authorities, regardless of their nomenclature. Furthermore, the NPS motor vehicle regulations at 36 C.F.R. § 4.10 do not recognize a “national seashore recreational area” unit designation as one of the types of units where ORV use is permitted.

7. *Comment:* The proposed rule violates E.O. 13132 by not providing a federalism summary impact statement.

*Response:* The proposed rule is consistent with E.O. 13132. It does not have federalism implications that require a federalism summary impact statement. The rule governs the use of federally-owned land in the Seashore by individual Seashore visitors. It does not have a substantial direct effect on the State of North Carolina (or any other state), on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

8. *Comment:* The proposed rule violates E.O. 13474, which amended E.O. 12962, specifically section (d), which directs Federal agencies to ensure that recreational fishing shall be managed as a sustainable activity in national wildlife refuges, national parks, national monuments...or any other relevant conservation or management areas or activities under Federal authority, consistent with applicable law. The ORV management plan harms recreational fisherman the most.

*Response:* E.O. 12962 (1995), as amended by E.O. 13474 (2008), directs Federal agencies, “to the extent permitted by law”, to improve the quantity, function, sustainable productivity and distribution of U.S. aquatic resources for increased recreational fishing opportunities. It further directs Federal agencies to ensure that recreational fishing shall be managed as a sustainable activity in national wildlife refuges, national parks or any other relevant conservation or management areas or activities under any Federal authority, “consistent with applicable law”. As stated in Chapter 1 of the FEIS, numerous laws including the NPS Organic Act, the Seashore’s enabling legislation, the Migratory Bird Treaty Act and the Endangered Species Act require the NPS to, among other things, conserve wildlife and other natural and cultural resources

unimpaired for the enjoyment of future generations and to contribute to the protection and recovery of migratory birds and Federally listed threatened or endangered species. E.O. 11644 (1972), E.O. 11989 (1977), and NPS regulation 36 CFR § 4.10 also require the NPS to manage ORV use, if it is allowed, in a manner that minimizes harassment of wildlife or significant disruption of wildlife habitats, minimizes conflicts between off-road vehicle use and other existing or proposed recreational uses of the same or neighboring public lands, and ensures the compatibility of such uses with existing conditions in populated areas, taking into account noise and other factors. Areas and trails shall be located in areas of the National Park System, natural areas, or National Wildlife Refuges and game ranges only if the respective agency head determines that ORV use in such locations will not adversely affect their natural, aesthetic, or scenic values. The proposed rule is “consistent with applicable law” and places no direct constraints on recreational fishing. Its focus is to authorize ORV use at the Seashore, manage it to protect and preserve natural and cultural resources and natural processes in accordance with applicable laws, and provide a variety of safe visitor experiences while minimizing conflicts among various users. To the extent that management of ORV use would impact fishing and other recreational uses of the Seashore, those impacts were analyzed during the preparation of the ORV management plan/EIS.

9. *Comment:* The proposed rule will negatively impact primitive wilderness within the Seashore and does not address Congress’s goal of preserving “primitive wilderness” at the Seashore as directed in the park’s enabling legislation.

*Response:* The Seashore’s 1937 enabling legislation, which indicated that areas not developed for recreational use “shall be permanently reserved as a primitive wilderness”, predates the Wilderness Act of 1964. The NPS understands the language of the enabling legislation as



authorizing it to provide infrastructure and facilities for visitors in selected areas to support recreational use, as needed (e.g., parking areas, day-use facilities for beach-goers, life-guarded beaches, boat launch areas, and campgrounds, ORV ramps), even though this would not be appropriate in primitive wilderness. The Seashore has many undeveloped areas, many of which are retained and protected under the Selected Action and this rule; however, none of these areas are currently designated or proposed wilderness, and therefore it was not addressed as an impact topic in the ORV management plan/EIS. A study to explore the suitability of wilderness at the Seashore is outside the scope of this planning effort and will be addressed during a future process to develop a new General Management Plan for the Seashore.

10. *Comment:* The exclusion of fixed-distance, mandatory buffers for resource protection in the proposed rule violates the National Environmental Policy Act (NEPA) and the Administrative Procedure Act (APA). By excluding those species protections from the rule, the proposed rule is outside the range of alternatives considered within the EIS and has not undergone the "hard look" required by NEPA. By implementing a new alternative that was not studied in the FEIS, the proposed rule violates the APA's notice and comment requirements

*Response:* The proposed rule is based directly on the Selected Action described in the FEIS and Record of Decision (ROD). The rule contains those portions of the Selected Action, such as the designated ORV routes and other ORV management requirements, which the NPS believes are necessary to comply with the executive orders and NPS regulations. The species management strategies for the Selected Action, as described in the plan/EIS, are intended to evolve over time, through the periodic review process, in order to ensure accomplishment of the desired future condition for park resources stated in the plan. The NPS has revised the wording of subsection

(10) of the final rule to more clearly articulate its commitment to the implementation of the species management strategies and periodic review process described in the Selected Action.

11. *Comment:* The NPS and DOI are in violation of NEPA and other Executive Orders because they did not publish the full extent of the proposed restrictions in the *Federal Register* and did not provide ample documentation, review time, and meetings or other forms of education for the public.

*Response:* The NPS has gone through an extensive public participation process, including negotiated rulemaking, to develop the ORV management plan/EIS and special regulation. The public participation process for the plan/EIS is summarized on p. 27 of the FEIS and the expected impact of the proposed alternatives, including the various restrictions proposed in each alternative, is described in “Chapter 4: Environmental Consequences”, pp. 325-638 of the FEIS. A complete list of documents, public participation notices and other information for the project has been and still is available on the NPS PEPC website at <http://parkplanning.nps.gov/caha> (see “Cape Hatteras National Seashore Off-Road Vehicle Negotiated Rulemaking and Management Plan/EIS” project page, “Document List”). The NPS did not conduct public hearings during the public comment period for the proposed rule because it had already conducted public informational meetings in February and March of 2007 during public scoping on the plan/EIS, conducted additional informational meetings in January – February 2008 to examine the range of alternatives and seek input on alternative elements, held public comment periods each day during 20 days of negotiated rulemaking advisory committee meetings, and conducted five public hearings during the public comment period on the draft plan/EIS (DEIS), as described on p. C-1 of the FEIS. The rule is based on the plan/EIS that was developed through this extensive public participation process.

12. *Comment:* The proposed rule does not adequately address the Migratory Bird Treaty Act, the Endangered Species Act, or the Unfunded Mandates Reform Act (UMRA).

*Response:* The Selected Action for the ORV management plan/EIS, which the rule is based upon, gave extensive consideration to the protection of migratory birds and Federally listed threatened or endangered species. The U.S. Fish and Wildlife Service also reviewed the plan/EIS and drafted a Biological Opinion which concurred with the findings in the EIS. A detailed analysis of the impacts of the management alternatives on such species is provided in Chapter 4, pp. 347-491 of the FEIS. Please see the paragraph entitled “Unfunded Mandates Reform Act” in the “Compliance with Other Laws and Executive Orders” section of this rule for explanation regarding consistency with UMRA.

13. *Comment:* The proposed rule makes no mention of the Americans with Disabilities Act (ADA) or the America’s Great Outdoor Initiative.

*Response:* The Rehabilitation Act, 29 U.S.C. § 791 et seq., applies to federal agencies in lieu of the ADA, and the NPS is required to provide reasonable access to programs and services at the Seashore. “Reasonable” does not necessarily mean “total” and must be viewed in the light of the entire program or activity, including its purpose (i.e., providing the visitor with a variety of experiences). In developing the ORV management plan/EIS and rule, the NPS recognized that visitors to the Seashore have different needs, and therefore provided a variety of uses, including both ORV and vehicle-free areas. For those visitors that feel that they may require a vehicle to be readily available due to a medical condition or disability or need to have a family member with them at all times, opportunities are provided in the Seashore on designated routes where ORVs are allowed. In addition, the special use permit provision in subsection (7)(iii) of the rule would also allow vehicular transport of mobility impaired individuals via the shortest, most direct

distance from the nearest designated ORV route or Seashore road to a predetermined location in a beach area in front of a village that is not otherwise open to ORV use. These opportunities are in line with the applicable requirements and NPS policies.

The America's Great Outdoors Initiative (AGO) is a program of the Obama administration to encourage stewardship and recreational use of public lands. AGO vision statements include the following:

- All children, regardless of where they live, have access to clean, safe outdoor places within a short walk of their homes or schools, where they can play, dream, discover, and recreate. Americans participate in the shared responsibility to protect and care for our unique natural and cultural heritage for the use and enjoyment of future generations.
- Our national parks, national wildlife refuges, national forests, and other public lands and waters are managed with a renewed commitment to sound stewardship and resilience.
- Our natural areas and waterways, whether publicly or privately owned, are reconnected, healthy, and resilient and support both human needs and the wildlife that depend on them.

AGO does not provide specific guidance related to NPS ORV management decisions and does not supersede or modify the laws, regulations and executive orders that are applicable to ORV management at the Seashore. The rule is necessary to bring the Seashore in compliance with E.O. 11644 and E.O. 11989 with regard to ORV use, and with NPS laws, regulations (36 CFR § 4.10), and policies to minimize impacts to Seashore resources and values, and to implement the Selected Action identified in the December 2010 Record of Decision. Under the Selected Action, the NPS will provide visitors to the Seashore with a wide variety of access opportunities for both ORV and pedestrian users, with controls or restrictions in place to limit impacts on sensitive

resources, which is consistent with AGO's vision of stewardship and appropriate recreational use of public lands.

14. *Comment:* Subjecting vehicles to search and inspection for equipment and requiring individuals to partake in an in-person education program to obtain a permit violates E.O. 12988 (Civil Justice Reform).

*Response:* As described in the "Compliance with Other Laws and Executive Orders" section of this rule, the provisions of this regulation are consistent with E.O. 12988. Note, however, that E.O.12988 is generally applicable only to civil matters, and violations of this regulation, as with other NPS regulations, would be criminal matters to which this E.O. does not apply.

15. *Comment:* The rule does not comply with the following:

- Regulatory Flexibility Act. There was not adequate consideration given to economic impacts, both direct and indirect, nor to cumulative impacts of small businesses on the islands.
- Antideficiency Act. The rule makes forward looking statements about infrastructure improvements which NPS claims will lessen the economic impacts. There are no funds in the NPS appropriated budget to pay for these improvements.
- Architectural Barriers Act of 1968. A large number of those submitting comments on the DEIS specifically expressed concerns about those with disabilities and others who have an inability to walk long distances would no longer be able to enjoy the Seashore.

*Response:* Pursuant to 5 U.S.C. § 605(b), the Regulatory Flexibility Act (RFA) permits an agency to certify that a proposed rule would not have a significant economic impact on a substantial number of small entities, if the preliminary analysis supports such a decision. The

NPS performed the required economic analysis and provided the above certification in the proposed rule. The NPS provided the OMB with the proposed rule prior to publication in the *Federal Register*. The OMB reviewed and commented on the rule, and approved its publication, indicating that it was consistent with applicable regulatory requirements under its purview.

The NPS has included infrastructure and access improvements as an integral part of the ORV plan and regulation, and anticipates that funding for construction of the improvements will come from appropriated NPS programs such as “Line Item Construction”, “Repair and Rehabilitation”, or from the Seashore’s Recreation Fees, or from grants, and thus is consistent with the Antideficiency Act.

The Architectural Barriers Act of 1968, as amended, 41 U.S.C. § 4151 et seq., imposes standards on buildings constructed under several types of federal nexus. The rule, which designates routes for ORV use, does not require the construction of any buildings, so the Act does not apply.

16. *Comment:* The NPS has failed to adequately address or even recognize the economic impact of the rule. The Region of Influence (ROI) is incorrectly identified. Analysis at the county-wide level masks the impacts that would occur in the Seashore villages, and northern communities such as Kill Devil Hills and Southern Shores should not be included in the ROI.

*Response:* To gather data for the socioeconomic analysis, the NPS conducted a survey of businesses in the Seashore villages and in Kill Devil Hills, Nags Head, and Kitty Hawk. In the business survey, some of the businesses in the three villages north of the Seashore reported that beach closures to ORVs would affect their revenue and forecast revenue losses in the future, so it is not inaccurate to include these communities in the ROI. However, it is true that other businesses in the three northern communities reported that ORV restrictions would have no impact on their business. In the economic impact analysis, the NPS applied a range of losses

around the mean reported by businesses in the three northern communities to the entire Outer Banks area of Dare County north of the Seashore. The resulting impacts most likely overstated the economic impacts on the northern part of Dare County.

The NPS fully agrees that the impacts will fall mainly on the Seashore villages. For this reason NPS reported the range of revenue impacts used to calculate the impacts for each alternative separately for the Seashore villages and the rest of the ROI. Although the results from running the IMPLAN model are presented at the county-level, the discussion of each alternative stated that the Seashore villages would experience the majority of the direct impacts. In the discussion of the impacts on small businesses, the NPS stated that the impacts will be larger for businesses that depend on visitors who use particular beach access ramps or visit particular beaches that will be closed or restricted under the alternative. The conclusion for each alternative reiterated that the Seashore villages will experience the majority of the impacts and that small businesses may be disproportionately impacted. The analysis forecast higher adverse impacts on the small businesses than for the ROI as a whole.

In Hyde County, Ocracoke is relatively wealthier than the rest of the county and accounts for a large portion of the county's income. The IMPLAN analysis estimates the ripple effect of revenue changes in Ocracoke on Hyde County as a whole.

In initial meetings shortly before the Negotiated Rulemaking committee was officially formed and in early meetings with the committee, the NPS was told that the economic impacts would be widespread. Members of the local community urged the NPS to consider the impacts on Dare County, the State of North Carolina, and potentially neighboring states. The NPS chose to narrow the ROI to just the island portions of Dare and Hyde counties, and assessed the resulting indirect and induced impacts on Dare and Hyde County as a whole.

The results of these studies were released and relevant sections of the FEIS were updated to reflect them. It is an acceptable NEPA planning practice for newly available results of studies that were not available at the time a DEIS is written to be incorporated in the FEIS. NPS would prepare a supplemental DEIS for review if there were significant new information relevant to environmental concerns and bearing on the proposed action and its impacts (40 C.F.R.

§ 1502.9(c)(1)(ii)) In this case, however, the study findings are consistent with the analysis already provided in the DEIS.

17. *Comment:* The economic analysis for the proposed rule is flawed because it does not address the "ripple effect" to the local economy and is based on faulty assumptions about visitor spending.

*Response:* The NPS obtained relevant data for impact analysis using IMPLAN, an economic model that specifically calculates the "ripple effect" that changes in direct spending by visitors have on other sectors of the economy. According to economic theory, these ripple effects should be included in cost/benefit analyses only if they are large enough to change prices in affected markets. Without further information about possible changes in prices, NPS chose to include these ripple effects in the analysis of impacts and believes its analysis of these ripple effects is adequate.

18. *Comment:* Since the proposed rule raised Office of Management and Budget (OMB) legal or policy issues, OMB may also have concerns about the rulemaking process.

*Response:* As required by federal regulatory procedures, prior to the publication of the proposed rule in the *Federal Register*, OMB reviewed the proposed rule and the "Benefit-Cost Analysis of Proposed ORV Use Regulations at Cape Hatteras National Seashore" and approved the publication of the proposed rule. OMB also reviewed the final rule and the "Benefit-Cost



Analysis of Final ORV Use Regulations at Cape Hatteras National Seashore” before OMB approved the publication of the final rule in the *Federal Register*.

19. *Comment:* The ORV permit requirements should require approval by the OMB.

*Response:* The NPS is collecting information to provide the Superintendent data necessary to issue ORV permits. The information will be used to grant a benefit. The response is required to order to obtain the benefit of the ORV permit. As stated in the proposed rule, OMB has approved the information collection requirements associated with permit applications per the requirements of the Paperwork Reduction Act (44 U.S.C. § 3501 et seq.). The OMB approval number is 1024-0026.

20. *Comment:* The public was denied opportunities to comment on the economic impact analysis, including the benefit cost analysis, during the ORV management planning and rulemaking processes.

*Response:* The March 2010 DEIS, which was developed and open to public comment through the NEPA process, contained a socioeconomic impact analysis in Chapter 4, pp. 561-598, of the proposed management alternatives. The DEIS was open to public review and comment for 60 days, during which the NPS received numerous comments on the analysis. A separate report titled “Benefit-Cost Analysis of Proposed ORV Use Regulations in Cape Hatteras National Seashore” was prepared, as required, for the proposed rule and posted on-line at <http://www.parkplanning.nps.gov/caha> on July 6, 2011, the same date the proposed rule was published in the *Federal Register*. The public’s opportunity to comment on the proposed rule therefore included the ability to comment on the benefit-cost analysis and other documents and studies that were used to form the basis for the rule.

21. *Comment:* The small business survey conducted for the proposed rule was not released to the public prior to the public comment period, and therefore there was insufficient time for public review and comment. Several local businesses were never consulted or contacted and the estimates are based upon flawed sample data.

*Response:* The NPS contracted with RTI International to conduct a small business survey to provide information for the ORV Management Plan/EIS. A representative cross-section of businesses, but not all businesses, was surveyed, which is standard methodology for such a survey. RTI also conducted a survey of Seashore visitors and counts of vehicles using the ocean-side beach access ramps and visitors using selected beaches at the Seashore. The results of these studies were incorporated into the FEIS and the reports were made available to the public on December 23, 2010, when they were posted on the RTI website at <http://rti.org/publications/publications.cfm> and on the NPS PEPC website at <http://www.parkplanning.nps.gov/caha>. The Seashore issued a press release on December 23, 2010, announcing the availability of these reports. The public was given the opportunity to comment on any studies or data used in the planning process during the public comment periods for the DEIS and the proposed rule.

22. *Comment:* The economic impact requirement of \$100 million is not a fair measurement for the area and should be decreased based on the area to which the proposed rule will apply.

*Response:* The economic impact threshold level of \$100 million for analyzing impacts of the proposed actions was set by E.O. 12866, and is used to determine whether the proposed rule is “significant” for purposes of review by OMB. That threshold level did not otherwise affect the analysis of the proposed actions.

23. *Comment:* The economic impact analysis is flawed because there is limited information regarding the number of vehicles or visitors that accessed the Seashore prior to increased access restrictions, which began in 2003, several years prior to the Interim Strategy. Without information prior to 2003, the baseline assessment is skewed.

*Response:* Reliable data on the number of ORVs using Seashore beaches prior to 2003 were not available, and in any case are not directly relevant to this study. As part of the NEPA planning process, NPS developed a set of alternatives for management of ORVs in the Seashore that included two no-action alternatives (the Interim Strategy and the consent decree) and four action alternatives, identifying Alternative F as the NPS Preferred Alternative. The Interim Strategy was implemented in 2006-2007 and the consent decree was implemented in 2008-2010, while the plan/EIS was being developed. These no-action alternatives implemented in 2006-2010 serve as the baseline for comparison of the action alternatives, including the NPS Selected Alternative F that is the basis for this rule. Section 2.3 of the Benefit-Cost Analysis (BCA) describes how NPS evaluated visitation and ORV use information for the range of management alternatives considered in the plan/EIS. The NPS believes that the methodology and information sources described in the BCA provide an adequate basis for assumptions about baseline visitation.

24. *Comment:* The ecosystem and the associated tourism play an important role in the economy of the Seashore. Protection of this environment would be beneficial to the Seashore's economy.

*Response:* While the economic analysis of this rule did not quantify potential benefits from the protection of the Seashore's ecosystems and the environment resulting from the proposed

actions, the FEIS did account qualitatively for these benefits, which were considered in selecting the Preferred Alternative, upon which this rule is based.

25. *Comment:* The four areas of the Seashore that the North Carolina Beach Buggy Association had proposed as potential Traditional Cultural Properties (TCPs) were not considered by NPS during the ORV management planning and rulemaking processes. The National Historic Preservation Act (NHPA) of 1966 requires Section 106 review as part of the NEPA process.

*Response:* As required by Section 106 of the NHPA, the NPS consulted with the North Carolina Department of Cultural Resources, State Historic Preservation Office (SHPO) during the NEPA process. The SHPO sent a letter to the Seashore on April 6, 2010 which indicated that it had reviewed the plan/EIS pursuant to Section 106 of the NHPA, that it was aware of “no historic resources which would be affected by the project”, and that it had no comments. The Seashore has also completed a number of studies meant to identify historic resources, including a Historic Resource Study, an Ethnohistorical Description of the Eight Villages Adjoining Cape Hatteras National Seashore, and an Ethnographic Study Analysis of Cape Hatteras National Seashore. During the process of preparing the ORV management plan/EIS, the NPS determined the areas ineligible as TCPs and provided its determination to the SHPO, which offered no opinion.

26. *Comment:* It was not necessary for the NPS to consult with the Tuscarora Indian tribe since Tribal members never lived at Cape Hatteras.

*Response:* The Presidential Memorandum of April 29, 1994, and E.O. 13175 on Consultation and Coordination with Indian Tribal Governments require the NPS to maintain a government-to-government relationship with federally recognized tribal governments. In this case, the Seashore is mandated to consult with the federally recognized Tuscarora Indian Tribe.

27. *Comment:* Since Pea Island is technically owned by the NPS (although controlled by U.S. Fish and Wildlife Service), it should be included as a vehicle-free area in the Seashore.

*Response:* Pea Island National Wildlife Refuge (Refuge) is owned and administered by the U.S. Fish and Wildlife Service and therefore the NPS cannot direct the management of visitor use at the Refuge.

28. *Comment:* The proposed rule does not reflect the will of the people that was expressed during the public hearings and comment period for the DEIS. A large percentage of the people who spoke during the public comment period preferred that ORV and pedestrian access take priority over resource protection. Why were those numbers not considered more in the proposed rule?

*Response:* While the majority of the members of the public who spoke at the DEIS public hearings supported ORV access over resource protection, statements made at the hearings represent only a subset of the over 15,000 pieces of correspondence that the NPS received on the DEIS. Under NEPA, all comments are considered with equal weight, regardless of whether they were handwritten, electronic, or spoken. The NPS received thousands of comments supporting increased ORV access and thousands calling for increased resource protection. The NPS reviewed and considered these comments and made changes to the Preferred Alternative based on them. These changes were subsequently reflected in the FEIS and ROD, which formed the basis for this rule. Public comment, under NEPA, is not a “voting” process. NPS must base its decision on applicable legal authorities and policies, available scientific information, and other substantive concerns, not the relative popularity of one alternative over another.

29. *Comment:* The NPS should not accept certain comment letters on the proposed rule because the authors failed to comply with NPS requirements that all comments include the agency

name and the Regulation Identifier Number (RIN) in the body of the comments, or by submitting form letters orchestrated by advocacy groups.

*Response:* The purpose of emphasizing the use of the identification information was to ensure that comments made their way to the appropriate place for consideration, analysis, and response. The agency name and RIN information were automatically included in all comments that were received through the Federal eRulemaking Portal at <http://www.regulations.gov>. Comments that were mailed or hand delivered to the park in accordance with the stated deadlines were accepted with or without the RIN, as long as they were clearly applicable to the proposed ORV rule at the Seashore.

30. *Comment:* Supporting documents, public comments, and transcripts of public hearings should have been added to the public docket posted at <http://www.regulations.gov> as they contain information which is relevant to the proposed rule.

*Response:* The proposed rule was based directly on the Selected Action identified in the December 2010 ROD for the final ORV management plan/EIS (FEIS), which was developed through the NEPA process. As stated in the July 6, 2011, *Federal Register* notice for the proposed rule, the ORV management plan/FEIS, the ROD, and other supporting documentation can be found online at <http://www.parkplanning.nps.gov/caha> and are part of the public record for the plan/EIS.

31. *Comment:* The NPS should create an advisory committee of local residents, ORV representatives and local officials to work with the NPS in determining future resource closures, dates for seasonal ORV restrictions, ORV route boundaries, and other ORV management matters.

*Response:* Creating a standing ORV management advisory committee under the Federal Advisory Committee Act (FACA) was considered but dismissed as a reasonable alternative during the preparation of the plan/EIS. Section 2(b)(2) of FACA restricts the establishment of such committees to situations “when they are determined to be essential.” The creation of the suggested committee was not determined to be “essential.” When the NPS did establish a negotiated rulemaking advisory committee to assist the NPS in developing alternatives for the ORV management plan and rule, the committee represented a wide range of interests and points of view that were often contradictory. Given the high level of interest in ORV management and species protection at the Seashore, it is not realistic to think that the NPS could establish a standing ORV advisory committee that does not include the many diverse interests similar to those that were represented on the negotiated rulemaking advisory committee. Since the negotiated rulemaking committee was unable to reach consensus on the matters before it, it appears unlikely that such a committee could provide the NPS with clear and consistent, actionable advice, and managing the committee would require a commitment of staff time and funding that could not be sustained over the life of the plan.

32. *Comment:* The comment period should have been extended 30 to 60 days because of Hurricane Irene.

*Response:* The 60-day public comment period for the proposed rule opened on July 6, 2011, and closed on September 6, 2011. With eleven days remaining in the comment period, Hurricane Irene struck the Outer Banks area early on Saturday, August 27, 2011. Thousands of public comments had been received prior to the hurricane reaching the Outer Banks. On September 6, 2011, the NPS announced it would reopen the public comment period until September 19 to allow more time (i.e., thirteen more days) for those who may have been affected by Hurricane

Irene to submit comments. A *Federal Register* notice was published on September 9, 2011, to officially reopen the comment period until September 19. The NPS acknowledges that many Outer Banks residents, property owners, and businesses were impacted by Hurricane Irene, and believes that reopening the comment period for the length of time described above was an appropriate response to the circumstances.

33. *Comment:* The proposed rule does not contain the specific and enforceable protections for wildlife and other natural resources that were included in the Selected Action (Alternative F), as described in the Record of Decision (ROD) for the final ORV Management Plan/EIS. As a result, the proposed rule fails to meet the requirements of the FEIS statement of purpose and need, E.O. 11644, 36 CFR § 4.10, and the Consent Decree.

*Response:* The rule contains those portions of the Selected Action, such as the designated ORV routes and other ORV management requirements that the NPS believes are necessary to comply with the executive orders and NPS regulations. The species management strategies for the Selected Action, as described in the plan/EIS, are intended to evolve over time, through the periodic review process, in order to ensure accomplishment of the desired future condition for park resources stated in the plan. The NPS has revised the wording of subsection (10) of the final rule to more clearly articulate its commitment to the implementation of the species management strategies and periodic review process included in the Selected Action.

34. *Comment:* Numerous commenters proposed various changes to the designated routes, including adding more year-round vehicle-free areas or increasing vehicular access to popular fishing areas.

*Response:* Comments on designated ORV routes in the proposed rule were nearly identical to those received on the DEIS. While finalizing the FEIS, the NPS thoroughly considered these



comments and made revisions to the preferred Alternative F, which formed the basis for this rule. The NPS believes that the designated routes and areas in the rule provide an equitable balance of vehicle-free areas and ORV routes, which provides for both resource protection and a variety of visitor experiences. Further information on how the NPS considered and designated routes and areas can be found in the FEIS (page C-115).

35. *Comment:* The Selected Action, Alternative F, was biased toward environmental concerns, rather than recreation.

*Response:* The Selected Action includes the combination of ORV route and requirements and species management strategies that best addresses the stated purpose, need, and objectives of the ORV management plan/EIS. The NPS is obligated under its Organic Act and the Seashore's enabling legislation to ensure that the Seashore's beach nesting wildlife species are sufficiently protected from the impacts of ORV use and human disturbance to ensure that those species are conserved and remain unimpaired for the enjoyment of future generations. As stated in NPS Management Policies 2006, Section 1.4.3, Congress, recognizing that the enjoyment of future generation of the national parks can be ensured only if the superb quality of park resources and values is left unimpaired, has provided that when there is a conflict between conserving resources and values and providing for enjoyment of them, conservation is to predominate. This is how courts have consistently interpreted the NPS Organic Act.

36. *Comment:* The NPS should reduce the size of the buffer distances used to protect beach nesting wildlife so that closures are smaller and recreational access is allowed along the shoreline past the nesting areas.

*Response:* Resource closures are established to provide each protected species with the access to key habitat elements during critical points in its annual cycle. As described in the plan/EIS, the

buffer distances are intended to provide adequate protection to minimize the impacts of human disturbance on nesting birds and chicks in the majority of situations, given the level of visitation and recreational use in areas of sensitive wildlife habitat at the Seashore and issues related to noncompliance with posted resource protection areas. The buffer distances were developed after consideration of the best available science, which includes existing guidelines and recommendations, such as the Piping Plover Recovery Plan (USFWS 1996a) and the USGS Open-File Report 2009-1262 (2010), also referred to as the “USGS protocols”, on the management of species of special concern at the Seashore, as well as relevant scientific literature (research, studies, reports, etc.) for the respective species. In addition, buffer distances were developed using the practical knowledge gained by NPS resources management staff during two years of implementing the Interim Strategy (2006–2007) and three years implementing the consent decree (2008–2010).

37. *Comment:* The species protection measures are based on incomplete science such as the “USGS protocols”, which were not peer-reviewed science.

*Response:* NPS guidelines require that all scientific and scholarly information disseminated to the public in any format meets the requirements of NPS Director’s Order 11-B: *Ensuring Quality of Information Disseminated by the National Park Service*, which may require peer review for activities and information used in the decision-making process. However, there is no requirement for all information used in a NEPA document to be peer-reviewed. The DEIS does not state that the USGS protocols are the primary source of information used in the Plan. The NPS used a multitude of sources in the development of the species protection strategies contained in the EIS, in addition to the professional experience of Seashore staff implementing various species management measures under the Interim Strategy and the Consent Decree. As

noted in the References section of the EIS, the majority of the research that was relied upon was from peer-reviewed journals and official agency publications such as the USFWS species recovery plans. However, the NPS did review and incorporate the results of several studies that were completed by university researchers as part of their graduate theses or doctoral dissertations, as many of these research projects involved species found at the Seashore and also occurred in similar coastal or barrier island ecosystems. The NPS believes that the FEIS contains information of maximum quality, objectivity, utility, and integrity and is therefore in compliance with the Information Quality Act and the OMB, DOI, and NPS policies and guidelines that address the Act.

38. *Comment:* The definition of *ORV corridor* in the proposed rule does not sufficiently protect wildlife. The definition in the proposed rule has the effect of setting aside far more area for driving than it did in the FEIS, when it was clearly modified by the establishment of SMAs (Species Management Areas).

*Response:* The concept of SMAs was not included in the Selected Action for the reasons described on pp. 79-80 of the FEIS. The wording of the proposed rule is consistent with that of the ROD and FEIS, which addressed these issues.

39. *Comment:* There should be corridors to provide access through and around areas of resources closures. The Selected Action, Alternative F, will result in less shoreline available for recreation, resulting in crowding and user conflict.

*Response:* During public comment on the DEIS, some commenters recommended providing a corridor through all species resource closures and buffers. A buffer or resource closure is an area surrounding a sensitive resource, such as bird nests or chicks, which is closed to visitor access during critical life cycle stages to reduce human disturbance and the risk of mortality due to

pedestrians and ORVs. Any passages, corridors, or pass-throughs that cut directly across/through a resource closure would essentially undermine the biological function of the closure and could render it compromised, perhaps even useless to the species it is meant to protect, if all buffers include ORV corridors. Therefore, the element of including an ORV corridor through resource closures was not included in the range of alternatives, as it would violate the mandate to conserve wildlife and other park resources under the NPS Organic Act, the Seashore's enabling legislation, the executive orders on ORV management, and 36 C.F.R. § 4.10.

40. *Comment:* Vehicle traffic should be routed around nesting sites using established roads in order to avoid impacts to wildlife.

*Response:* The plan/EIS calls for the use of species-specific buffer distances to minimize human disturbance and protect nesting areas. In many cases, the buffer, once established, will preclude access along the beach adjacent to a nest site, particularly if the beach is narrow. However, in some cases, such as on a wide beach or inlet spit, there may be sufficient distance between the nesting area and the shoreline to allow continued access when the prescribed buffers are implemented. When shoreline access is temporarily closed to protect a particular nest site, ORV traffic will be able to continue to use open routes, which connect to established roads, in order to access other locations that are open to ORV use.

41. *Comment:* The required training and ORV permits should be available at multiple locations and on-line, not just "in person" as indicated in subsection (2)(v). Requiring the education to be obtained "in person" could cause undue delays for visitors, especially when there is a high influx of visitors. Once an individual has completed the education program once, they should not have to complete the education program in the following years or weeks, if a weekly permit is desired.

*Response:* The NPS has modified paragraph 7.58(c)(2)(v) of the rule by removing the “in person” language to provide the Superintendent with greater flexibility for administering the ORV permit issuance procedures. The objectives of the education program are to ensure ORV operators know the rules and to improve compliance with ORV and resource protection requirements. The NPS will initially require that all permit applicants take the education program in person in order to ensure completion of the program, and applicants will be required to take the education program annually for annual permits, or once per year if an applicant obtains one or more 7-day permits in a year, assuming the applicant has committed no violations since last taking the education program. Through the periodic review process, NPS will evaluate the effectiveness of the education program in achieving its objectives and could at some point, if appropriate, consider changes in the delivery method or frequency of the education requirement.

42. *Comment:* The Seashore should require education for all visitors, not just ORV users.

*Response:* The education requirement in the rule applies specifically to persons applying for an ORV permit as the NPS believes that the education program will improve compliance with the ORV regulations. As indicated in Table 8 of the FEIS, the NPS will also develop a new voluntary (i.e., not mandatory) resource education program targeted toward pedestrian beach users.

43. *Comment:* The NPS should consider alternatives to a permit fee, including alternative ways for the park to generate revenue such as collecting tolls at the Seashore. If ORV users are going to be charged a user fee, then all visitors should have to pay a fee.

*Response:* During the process of preparing the ORV management plan/EIS, the NPS considered a variety of alternative elements related to ORV permits and fees then considered public comments on the issue before determining the Selected Action in the December 2010 ROD. The

idea of an entrance fee for the Seashore was discussed thoroughly during the negotiated rulemaking process and was dismissed primarily due to administrative and financial obstacles. The establishment of an entrance fee would require the NPS to install manned entrance gates in the Seashore to collect visitor fees. However, there are thousands of local residents that have to travel through the Seashore to gain access to their property. The logistics of collecting entrance fees from all visitors would result in delays at entrances and would restrict travel along NC-12. In addition, the Seashore would only be able to retain a portion of the entrance fees collected and could not use those funds to support key functions associated with an ORV management program, such as law enforcement, maintenance of routes or parking lots, or resource management.

44. *Comment:* Outer Banks residents should not be required to obtain an ORV permit, or at least should not have to pay a fee.

*Response:* As a unit of the National Park System, the Seashore is open on an equal basis to all members of the public, regardless of where they live. Therefore, the cost of ORV permits would be the same for all ORV users and would not vary based on their place of residence or their membership in a particular organization. Additional information on how the permit system would be administered and what fees would be used for can be found in the FEIS (page C-70).

45. *Comment:* ORV permits should be issued to individuals rather than vehicles.

*Response:* The option of issuing a permit to the person that would be usable in any vehicle was considered during the EIS process, but eventually eliminated. Verifying that people have permits when the permits are movable between multiple vehicles would require substantially more effort by NPS law enforcement staff, who would have to stop each driver and ask to see his or her permit. Therefore, to provide the most efficient method for enforcing the permit system, the NPS

has revised the wording of subsection (2) to make it clear that the permit is issued to the individual for a specific vehicle and the “proof of permit”, such as a windshield sticker or a hang-tag issued by the NPS, must be affixed to that vehicle for use off-road.

46. *Comment:* The ORV permit should not be based on the calendar year, but instead permits should be valid one year from the issue date. Other commenters suggested that the ORV permit be issued for two weeks, similar to the North Carolina recreational saltwater fishing license.

*Response:* In the DEIS, the NPS considered a variety of options for year-long permits, which included an option for permits that would be valid for one year from the issue date, as well as various options for short-term permits. Based on simplicity, operational efficiency, and visitor convenience, the decision was made to provide visitors with two permit options: annual permits, valid for the calendar year; and 7-day permits, valid from date of purchase.

47. *Comment:* The proposed price range for the ORV permit is too high and will discourage use.

*Response:* The price for the ORV permit will be based on a cost-recovery system and is not designed to be cost prohibitive. As a cost recovery program administered under NPS Director’s Order 53, the actual price of the ORV permit will be determined by the cost to the NPS to implement the ORV management program divided by the estimated number of permits to be sold. Based on prices at Cape Cod and Assateague Island National Seashores for similar types of permits, as a starting point it is reasonable to expect the price of an annual ORV permit at Cape Hatteras to be \$90-\$150 and the price of a weekly permit to be approximately 50% - 33% of the annual price (up to 50% if the annual price is lower in the price range; as low as 33% if annual price is higher in the price range)

48. *Comment:* After paying for a permit, people may not be able to access their preferred area of the Seashore due to resource closures or carrying capacity restrictions.

*Response:* Obtaining an ORV permit allows a visitor to operate the permitted vehicle on designated ORV routes, but does not guarantee access to all routes all the time. Certain areas of the Seashore may also be closed to ORV access for resource protection during breeding and nesting season for protected species. During peak use periods such as weekends and holidays during the summer, there could be occasions where certain popular areas at the Seashore reach their established carrying capacity limit, precluding additional ORV use until a number of vehicles leave the particular area. While it is true that some popular ORV areas will be inaccessible at certain times during the year, past experience indicates that substantial sections of the beach that are designated as ORV routes would remain open for ORV use when other sections are temporarily closed. The wording in subsection (9) has been revised to make it clear that certain ramps are “designated for” ORV use, rather than “open” for ORV use; and “designated ORV routes and ramps are subject to resource, safety, and other closures implemented pursuant to subsection (10)” of the rule.

49. *Comment:* There should be lower fees for less polluting vehicles.

*Response:* As discussed previously, the price of the ORV permit fee is determined by how much it costs the NPS to implement the ORV management plan. Although low emission vehicles are less polluting, they still require the same level of management effort as standard vehicles. Therefore, offering a reduced fee for low emission vehicles would not meet the NPS’s goal of recovering the costs of administering the ORV management program.

50. *Comment:* I question the legality of the equipment requirements and NPS inspection of ORVs and the cost of the equipment.



*Response:* As part of the special regulation, the NPS has the authority to develop vehicle and equipment requirements associated with issuance of an ORV permit. Much like state vehicle inspection requirements, Seashore law enforcement personnel may inspect ORVs to ensure compliance with the vehicle requirements contained in the regulation. The NPS does not anticipate randomly searching permitted ORVs for required equipment. However, ORV operators must be able to demonstrate compliance with vehicle and equipment requirements upon request. The NPS developed these equipment requirements as a means of providing for visitor safety and reducing incidences of vehicle strandings. The equipment requirements contained in the regulation are minimal and are generally items that most drivers already have in their vehicles. Accordingly, the cost of these items would be negligible.

51. *Comment:* Low speed vehicles, golf carts, or electric vehicles should be allowed.

*Response:* Under the proposed rule, only vehicles registered, licensed, and insured for highway use and that comply with inspection regulations within the state, country, or province where the vehicle is registered are allowed to operate on the Seashore. While low speed vehicles or neighborhood electric vehicles may be authorized for local use in certain areas, they generally are not registered, licensed, or insured for highway use, and therefore would not be permitted to be used on the Seashore

52. *Comment:* The NPS should clarify what it means in subsection (3)(v) by requiring a “jack stand” be carried. Jack stands are typically used in an automotive repair shop.

*Response:* The NPS concurs with this comment and has revised the wording of the subsection to say “jack support board”, rather than “jack stand”. The purpose of the board is to place it under the jack so the jack does not dig into the soft sand if/when the vehicle operator is attempting to change a tire on the beach.

53. *Comment:* Subsection (6) of the rule should be clarified to indicate that trailers with sleeping, cooking, and bathroom facilities are excluded.

*Response:* The NPS generally concurs with this suggestion; however, the NPS believes that trailers with only cooking facilities, such as a grill, are appropriate for beach use. Since camping on Seashore beaches is prohibited, the intent is to preclude the use of trailers that could contribute to violations of the camping prohibition. The NPS has revised subsection (6) to state as follows: The towing of a travel trailer (i.e., a trailer with sleeping and/or bathroom facilities) off-road is prohibited.

54. *Comment:* Additional modes of alternative transportation should be included in the rule.

*Response:* Alternative transportation is outside the scope of the rule; however, as described in the FEIS under Alternative F, transportation strategies such as shuttles and buses could be considered (page 80). According to the ROD, the NPS would consider applications for commercial use authorizations to offer beach and water shuttle services and would apply for funding to conduct an alternative transportation study to evaluate the feasibility of alternative forms of transportation to popular sites.

55. *Comment:* In subsection (7)(iii), special use permits for mobility impaired individuals should be valid for all vehicle-free areas (VFAs), not just in VFAs in front of villages.

*Response:* VFAs were designed to provide areas for a “vehicle-free” experience for park visitors and to provide for resource protection for wildlife. There are many opportunities for mobility impaired visitors to use an ORV for beach access on the designated ORV routes outside of the VFAs. For mobility impaired visitors who specifically wish to join others that have gathered on foot on a village beach, the special use permit (SUP) option is also provided.

56. *Comment:* In subsection (7)(iii), the requirement that the vehicle must return to the designated ORV route or Seashore road immediately after the transport raises significant safety concerns and is unreasonable. What if the person needs to leave the beach quickly due to weather or health issues?

*Response:* The NPS concurs that the vehicle removal requirement stated in the proposed rule subsection (7)(iii) may create safety concerns or be unreasonable under certain circumstances. The NPS revised the wording to eliminate the vehicle removal requirement and to state that the special use permits are subject to the resource, safety, and other closures implemented pursuant to subsection (10), and may only be used in a manner consistent with the terms and conditions of the permit.

57. *Comment:* Vehicular access should only be allowed for mobility impaired visitors.

*Response:* ORV use, if effectively managed, provides convenient access for many appropriate visitor activities at some popular beach sites including, for example, activities that use vehicles to transport substantial amounts of gear for the activity. Allowing only mobility-impaired visitors to operate vehicles on ORV routes would essentially preclude vehicular access for the majority of ORV users at the Seashore. This approach would be inconsistent with the Seashore's 1984 General Management Plan which states that "selected beaches will continue to be open for ORV recreational driving and in conjunction with surf fishing in accordance with the existing use restrictions". This approach would also not meet the purpose, need, and objectives of the ORV Management Plan/EIS.

58. *Comment:* Special Use Permits (SUPs) should be issued to anyone who is in possession of a legally registered handicap sticker from their state.

*Response:* Anyone who has a license plate or placard issued by a state division of motor vehicles to a mobility impaired individual is eligible for the SUP; however, the SUP is not intended to provide blanket vehicular access to all vehicle-free areas (VFAs). Because the SUP is intended only to allow vehicular transport of mobility impaired individuals via the shortest, most direct distances from the nearest designated ORV route or Seashore road to a predetermined location in a designated VFA in front of a village, the NPS will issue the SUPs upon request on a case by case basis. The specific terms and conditions of each SUP, such as the location to be accessed or the duration of the permit, will be determined based on the individual need.

59. *Comment:* Implementation and enforcement of SUPs will create an undue workload burden on the Superintendent and NPS personnel.

*Response:* The operational impacts of ORV management and the associated costs for adequate staffing to implement the ORV management plan and rule, including the SUP provision, were carefully considered during the development of the ORV management plan/EIS. The specific circumstances described in subsection (7) in which SUPs would be issued to authorize temporary off-road driving in areas not designated as ORV routes are limited in scope, number, and frequency of occurrence. The expected SUP workload will not add substantially or uniquely to the general ORV management workload that was considered and addressed in the development of the plan/EIS.

60. *Comment:* Non-emergency use by nonessential vehicles should be prohibited within a resource closure and special use permits should state that the holder must adhere to all closures.

*Response:* The NPS concurs with this comment. The wording of subsection (7) has been revised to state that the SUPs are subject to the resource, safety, and other closures implemented

pursuant to subsection (10), and may only be used in a manner consistent with the terms and conditions of the permit.

61. *Comment:* The NPS should increase its law enforcement presence and focus on enforcing the existing rules, which are sufficient, rather than establishing additional rules.

*Response:* Without a regulation designating ORV routes, the NPS is out of compliance with its own regulations and the requirements of E.O. 11644 and E.O. 11989 that relate to criteria for ORV route designation and allowing ORV use on national park system lands. Therefore, this special regulation is needed to allow continued ORV use at the Seashore. The operational impacts of ORV management and the associated costs for adequate staffing to enforce regulations related to ORV use were considered and addressed in the development of the ORV management plan/EIS.

62. *Comment:* The NPS should create a 1,000 meter ORV exclusion zone on beaches adjacent to all NPS campgrounds to improve the experience for people staying the campgrounds and to reduce visitor conflicts and improvement of amenities.

*Response:* The beach in front of the Ocracoke campground is designated as vehicle-free during periods of high visitor use (April 1 to October 31). At Cape Point, Oregon Inlet, and Frisco Campgrounds, adjacent areas are open to ORV use year round to maintain an ORV route, and the Seashore knows of no major issues raised related to safety or conflicts at the campgrounds that would warrant additional restrictions. However, the Superintendent has the authority under paragraph (10) of this regulation to temporarily restrict access to ORV routes or areas in accordance with public health and safety criteria.

63. *Comment:* The NPS has mischaracterized beach driving as a "new" activity in order to justify new infrastructure.

*Response:* ORV use at the Seashore is not new. The NPS briefly summarized the history of ORV use at the Seashore in the preamble to the proposed rule and more extensively in pp. 17-27 of the FEIS. What is new is that the rulemaking process will result in the formal designation of ORV routes in order to comply with E.O. 11644, as amended by E.O. 11989, and NPS regulation 36 C.F.R. § 4.10(b). As described in the FEIS and Record of Decision, new infrastructure will facilitate public use of designated ORV routes and the VFAs that are not designated for ORV use.

64. *Comment:* In the plan/EIS the NPS indicated it would provide additional access points, including ORV ramps and parking areas and dune walkovers for pedestrians as mitigation for impacts to recreational access. The new infrastructure should be established before new ORV routes and VFAs are implemented.

*Response:* The NPS has included these infrastructure and access improvements as an integral part of the ORV plan and regulation, and anticipates that funding for construction of the improvements will come from appropriated NPS programs such as "Line Item Construction", "Repair and Rehabilitation", or from the Seashore's Recreation Fees, or from grants. However, the only designated year-round ORV route at the Seashore that would not have an established ORV access point until after the new ramps are constructed is the area between ramp 59.5 and ramp 63. Therefore, the NPS has amended the language in the rule to allow for existing ramp 59 to remain open to ORV use until ramp 59.5 can be constructed. Once that occurs, ramp 59 will cease to be a designated ORV access ramp.

65. *Comment:* An area that is not endangering the wildlife should be set aside for recreational beach driving. Please act responsibly and build a nearby track for racing around in a dune buggy or off road vehicle.

*Response:* E.O. 11644 and E.O. 11989 require that ORV activities on public lands be limited to designated routes or areas and that these designations be based on the protection of resources, the promotion of visitor safety, and the minimization of user conflicts. Designating an area for recreational driving or racing would not meet the intent of these Executive Orders as these types of vehicular uses would not promote visitor safety, minimize conflicts, or adequately protect resources. Establishing this type of use would also not be consistent with the purpose of the EIS, which is to “develop regulations and procedures that carefully manage ORV use/access in the Seashore to protect and preserve natural and cultural resources and natural processes, to provide a variety of visitor use experiences while minimizing conflicts among various users, and to promote the safety of all visitors.”

66. *Comment:* Where ORV use is allowed could be based on seasonal indicators such as the summer tourist season or by seasonal nesting patterns for species at the Seashore.

*Response:* During the process of preparing the ORV management plan/EIS, the NPS considered a variety of seasonal factors, including shorebird and turtle nesting seasons, and park visitation and rental unit occupancy trends, before determining the dates used for seasonal restrictions in the Selected Action for the December 2010 ROD. The proposed rule is based on and consistent with the ROD.

67. *Comment:* Seasonal ORV closures of villages should be based on conditions, not arbitrary dates. Dates should not be permanently established in the proposed rule, but should be

determined annually by the Superintendent through consultation with Dare County, Hyde County and North Carolina Department of Transportation (NCDOT) officials.

*Response:* The dates for ORV use in front of the seasonally designated villages and Ocracoke Campground are not arbitrary. In the ROD, NPS determined that these areas would be open to ORVs from November 1 to March 31 when visitation and rental occupancy is lowest. These areas will be vehicle-free April 1 to October 31 when visitation and rental occupancy is highest.

68. *Comment:* The language describing user conflicts in the proposed rule is inaccurate. The NPS would have everyone believe that the people who use the Seashore are in conflict with each other. We find this not to be true.

*Response:* The existence of visitor conflicts has been documented in many public comments received on the Interim Strategy and on the ORV management plan/EIS. The Seashore also receives letters from visitors complaining about the adverse effects of ORVs on their experience at the Seashore. Some members of the negotiated rulemaking committee represented members of the public that consider the presence of vehicles driving on the beach as a conflict with their experience of the Seashore. The Seashore does not compile data on numbers of these complaints or incidents of visitor conflict, nor is a quantitative analysis required to manage or minimize it under E.O. 11644 and E.O. 11989. As required by these Executive Orders, the Seashore is designating routes to “minimize visitor conflict.”

69. *Comment:* ORVs should be limited to the amount of noise each vehicle can make.

*Response:* Vehicles used off-road must be registered, licensed, and insured for highway use and must comply with inspection regulations within the state, country, or province where the vehicle is registered. Most jurisdictions require that vehicles authorized for highway use have



functioning exhaust and muffler systems and prohibit modifications to those system would could result in excessive noise. In addition, 36 CFR § 2.12, Audio Disturbances, prohibits the operation of motorized vehicles within national park units in excess of 60 dBA at a distance of 50 feet from the source, or if below that noise level, noise which is unreasonable. The regulation also established reduced speed limits, which will reduce vehicular noise. The NPS believes that this combination of restrictions will adequately protect the soundscape in the Seashore.

70. *Comment:* There should be substantial fines for violation of ORV rules and requirements.

*Response:* Most of the violations observed at the Seashore are considered petty offenses (Class B Misdemeanors) in the federal court system, which carry a maximum fine of \$5,000.00 and/or six months in prison. The monetary amount of fines is governed by the Collateral Forfeiture Schedule (CFS), which must be approved by the Chief Judge of the Eastern District of North Carolina. The last update to the CFS was approved by the court in 2004. The NPS will submit an update the CFS in the next year or two and may request higher fines for ORV related offenses. In addition to the possibility of fines for the violator, an ORV permit may be revoked for violation of applicable park regulations or terms and conditions of the permit, which would include a violation of resource protection closures.

71. *Comment:* Night driving should be prohibited during sea turtle and bird nesting season.

*Response:* This regulation prohibits night driving from May 1 through September 14, which coincides with sea turtle nesting season. The regulation authorizes the Superintendent to permit night driving from September 15 through November 15 only in areas where no sea turtle nests remain. Prenesting and seasonal resource closures described in the ORV Management Plan/EIS prohibit any ORV use in these areas during the nesting period for sensitive bird species. The

NPS believes that these measures provide ample nighttime protection for birds, sea turtles, and their nests.

72. *Comment:* Night driving restrictions are not needed, are not based on science, and should not be included in the rule. There has only been one documented case in the history of the Seashore of a sea turtle being hit by an ORV, and that occurred in an area closed to the public while the consent decree night driving restriction was in effect.

*Response:* The sea turtle management procedures at the Seashore are based on the latest scientific research and are consistent with the latest U.S. Fish and Wildlife Service Recovery Plan for the Northwest Atlantic Population of the Loggerhead Sea Turtle (2008) and North Carolina Wildlife Resources Commission guidelines, which were both developed by scientific experts in the field of loggerhead sea turtle biology and conservation. For example, the loggerhead sea turtle recovery plan recommends that nighttime driving on beaches during the loggerhead nesting season be prohibited because vehicles on the beach have the greatest potential to come into contact with nesting females and emerging hatchlings at night.

Driving on the beach at night has been shown to impact nesting sea turtles and hatchlings both directly and indirectly. Because visibility is reduced at night, there is also the potential for nesting, live stranded, or hatchling turtles to be hit by ORVs operating at night. In addition, because NPS does not have the resources to monitor the entire beach 24 hours per day, the number of recorded incidents resulting from human activities, especially at night, likely underestimates the actual number of incidents that occur. In areas that people would not normally access due to distance, the Seashore has documented vehicle lights, people with lights, and cameras causing false crawls—false crawls that would likely not have occurred if ORVs had not brought the people to those locations. Park staff has also documented turtles crawling toward

vehicle lights after nesting, false crawls adjacent to fire pits, hatchlings disoriented by fires, hatchlings caught in tire ruts, and vehicles running over turtle nests prior to morning turtle patrols—some with recorded damage to eggs. Though it is the only known recorded incident at the Seashore where an adult nesting turtle was struck and killed by an ORV, the recent death of an adult nesting turtle that likely occurred during the early morning hours of June 24, 2010, indicates that the potential does exist for vehicles driving at night to strike and kill nesting turtles.

73. *Comment:* The regulation should allow portions of designated ORV routes to remain open to night driving rather than closing the entire route containing a turtle nest.

*Response:* The NPS concurs with this comment and has revised the rule language to provide the Superintendent with the authority to open “portions of” designated ORV routes in sea turtle nesting habitat to night driving if no turtle nests remain within those portions.

74. *Comment:* The NPS should close the Seashore to night driving from 10pm - 6am or from one hour after sunset to one hour before sunrise.

*Response:* As described in the FEIS, the NPS studied several different scenarios for establishing the hours and dates for night driving at the Seashore. Restricting night driving between the hours of 9:00 pm and 7:00 am provides an easily understood, enforceable restriction that provides a balance between conservation and public access by encompassing the majority of the nesting and hatching periods at night while generally allowing turtle patrol staff time to find and protect nests prior to ORVs being on the beach each day.

75. *Comment:* The rule should allow vehicle operators to avoid turtles rather than closing routes to night driving.

*Response:* As noted above, night driving has been shown to impact sea turtles and turtle management experts who developed the loggerhead sea turtle recovery plan recommend that night driving be prohibited during the turtle nesting season. Allowing vehicles in close proximity to sea turtles, especially at night, greatly increases the potential for direct and indirect disturbance to nesting turtles and hatchlings. Therefore, seasonally closing ORV routes (or portions of ORV routes) to night driving is a reasonable method of protecting sea turtles while continuing to provide ORV users with some level of night driving opportunities outside of seasonal restrictions.

76. *Comment:* The NPS should require applicants for night driving permits to complete an educational program.

*Response:* The education program that must be taken in order to obtain the standard ORV permit will address night driving restrictions and reasons for those restrictions. Under the Selected Action and proposed rule, there is no separate or special permit required for night driving.

77. *Comment:* The night driving restriction will curtail other early evening and night time activities at the Seashore, such as night sky viewing and beach fires. Lack of ORV access at night will create safety issues by requiring fisherman to walk in the dark to access prime historic fishing grounds.

*Response:* Seasonal night driving restrictions may affect the ability of visitors to have beach fires in more remote areas of the Seashore after 9:00 pm. However, beach fires would still be permitted throughout the Seashore outside of turtle nesting season and in front of villages and other selected beaches during the nesting season. Night driving restrictions would actually improve the ability of visitors to enjoy night sky viewing by reducing the amount of ambient light on the beaches. Although night driving restrictions would preclude fishermen from driving

to or from fishing grounds after 9:00 pm, nothing in the regulation would prohibit fishermen (or other visitors) from carrying a flashlight along the beach outside of resource closures.

78. *Comment:* Camping in self contained vehicles, vehicles engaged in fishing, or vehicles remaining stationary, should be allowed.

*Response:* Off-season self-contained vehicle camping in park campgrounds was analyzed in the FEIS in Alternative E and was not selected in the ROD or included in the rule due to the staffing needs, operating costs, and permitting, law enforcement patrol, and maintenance workloads associated with keeping campgrounds open in the off-season for a limited number of campers. NPS believes that local commercial campgrounds provide appropriate opportunities for off-season vehicle camping. Allowing vehicles to remain parked on the beach for the duration of the night when night driving is restricted would be difficult to patrol and enforce, and could place an unrealistic expectation on visitors parked in such locations to strictly comply with the night driving restrictions. The NPS does not have the resources to patrol the entire Seashore at night to enforce compliance, and allowing parked vehicles on the beach at night would potentially result in additional compliance problems that would cause adverse impacts to park resources.

79. *Comment:* The Seashore should be closed to commercial fishing. If not closed to commercial fishing, there should be specific restrictions on commercial fishing activity and permits.

*Response:* The Seashore's enabling legislation provides that the legal residents of the villages have the right to earn a livelihood by fishing within the boundaries of the park. Therefore, the NPS allows commercial fishing. However, the activity is managed, restricted, and permitted in accordance with the eligibility requirements identified in 36 C.F.R. § 7.58(b). Under the ORV rule, commercial fishermen would be not be required to obtain a separate ORV permit, but their

use of vehicles on Seashore beaches would be regulated through their commercial fishing permit issued by the Seashore.

80. *Comment:* Commercial fishing should be allowed only where there is neither a resource closure nor a lifeguarded beach.

*Response:* Commercial fishing vehicles have been prohibited from entering either resource closures or lifeguarded beaches for a number of years under the Superintendent's compendium and it is the intent of the NPS to continue this prohibition in the special regulation. To make it clear that the restriction applies to either situation, the NPS has revised the wording of subsection (8)(i).

81. *Comment:* The list of "open ramps" in subsection (9) is misleading because it includes proposed ramps that are not yet funded. Since these ramps are not funded, they should not be included in the rule and the rule should not be implemented until the ramps are constructed. A specific fund should be established to ensure the funds needed for the proposed ramps.

*Response:* Implementation of the ORV Management Plan and regulation would require funding for construction of supporting infrastructure, such as new access ramps and parking areas. The NPS anticipates that funding for this construction will come from appropriated NPS program funds such as Line Item Construction (major or costly construction activities) or Repair and Rehabilitation (improvements to existing infrastructure at moderate costs), or from the Park's Recreation Fees, or from grants. The only designated year-round ORV route at the Seashore that would *not* have an established ORV access point until after the new ramps are constructed is the area between ramp 59.5 and ramp 63. Therefore, the NPS has amended the language in the rule to allow existing ramp 59 to remain open to ORV use until ramp 59.5 can be funded and constructed.

82. *Comment:* Some areas that have been historically open to ORVs have been excluded from the designated routes listed in the tables in subsection (9). If the NPS moves forward with its plan to close these areas to ORV use, the rule should be revised to provide for an adaptive management process pursuant to which the NPS could reopen these closures based on visitor use patterns.

*Response:* The designated ORV routes in paragraph (9) of the regulation are taken from Alternative F (the NPS Preferred Alternative) in the FEIS, which became the Selected Action in the ROD. E.O. 11644 and E.O. 11989 require the NPS to designate routes through the promulgation of this special regulation. The NPS received and considered numerous comments on the proposed ORV routes during the review of the DEIS and addressed these public comments in Appendix C of the FEIS. While the FEIS contains adaptive management provisions for protected species management, the designation of ORV routes in a regulation does not lend itself to the principles of adaptive management, which is designed to make iterative adjustments to management techniques as new scientific information becomes available. If at some point in the future the NPS needed to revise the designated ORV routes, additional NEPA compliance would be required, followed by a new proposed and final rule.

83. *Comment:* Subsection 9 of the proposed rule (ORV Routes) should be amended to state explicitly that these routes will be subject to mandatory resource, safety, seasonal and other closures. These clarifications are necessary to make it clear that even if a route is “open”, it is still subject to certain closures. By not putting in these clarifications, the NPS would violate E.O. 11644.

*Response:* The wording of subsection (9) has been revised to make it clear that the routes and ramps listed are “designated” for off-road vehicle use, not necessarily “open”. Subsection (10)

indicates that routes or areas designated for off-road use are subject to closure or restriction by the Superintendent for a variety of reasons, including natural and cultural resource protection.

84. *Comment:* Section 7.58(c)(10) should be revised to provide the Superintendent with the discretion to authorize enhanced access when he or she determines that such enhanced access is appropriate based upon consideration of the relevant factors.

*Response:* Paragraph (10) applies specifically to the Superintendent's authority to establish temporary closures of ORV routes as needed to provide for resource protection, public health and safety, and other conditions described in that paragraph. Examples could include pre-nesting closures, carrying capacity closures, and implementation of resource protection buffers described in the ORV Management Plan/EIS. The Superintendent does not have the discretion to allow vehicular access to areas that are not authorized or designated as ORV routes in the special regulation, except for the specific situations addressed in subsection (7) related to special use permits for off-road driving, temporary use.

85. *Comment:* There is no basis for the NPS to establish parking requirements and reduced speed limits in the rule.

*Response:* As described in the FEIS, the NPS decided to implement the "one deep" beach parking restriction as a safety measure to ensure that two-way traffic would not be impeded during times of high ORV use. Although parking multiple rows deep may seem desirable to some visitors, law enforcement staff have documented that it has resulted in parking congestion, especially on narrow beaches, that blocks vehicle travel lanes, impedes safe traffic flow, fosters disorderly behavior, or results in a potentially dangerous situation in the event of an emergency. Reduced speed limits were implemented to increase pedestrian safety in areas where pedestrians and ORVs are in close proximity to one another.



86. *Comment:* The use of the term “may” in subsection (10), Superintendent’s Closures, renders the section permissive rather than obligatory. As written, the proposed rule seems to allow the Superintendent to choose not to impose any closures at all, even in the presence of protected species nests or chicks that would warrant imposition of buffers under the FEIS and ROD. The wording should be revised to state “the Superintendent shall limit, restrict, or terminate access to routes or areas designated for off-road use” based the considerations listed.

*Response:* The intent of the special regulation is to implement the Selected Action as described in the FEIS and ROD, which includes implementation of the Species Management Strategies described in Table 10-1 in the FEIS. As described in response # 33, the strategies will be periodically reviewed to evaluate their effectiveness. The wording of subsection (10) has been revised to state that the Superintendent “will” temporarily limit, restrict, or terminate access to routes and areas designated for off-road use in accordance with the criteria listed; and wording has been added that states “the Superintendent will conduct periodic reviews of the criteria and the results of these closures to assess their effectiveness.”

87. *Comment:* The vehicle carrying capacity is objectionable and not necessary, as the capacity of the area regulates itself. Carrying capacity should be struck from the rule.

*Response:* The NPS disagrees with the assertion that “the capacity of the area regulates itself.” Numerous documented law enforcement incidents have occurred over the years at popular locations during peak use periods, such as summer holiday weekends, involving crowded conditions, disorganized parking, and unsafe vehicle operation. The 260 vehicle per linear mile limit is based on a physical space requirement of 20 feet per vehicle, which would allow enough space for vehicles to be parked side by side with their doors open without touching each other

and with room for a person to pass between them safely. This, along with the other measures in the rule, would improve visitor experience and visitor safety during busy weekends.

88. *Comment:* The carrying capacity in the proposed rule should be much lower and allow no more than 130 ORVs per mile of Seashore. Language should be added to the rule to clarify that density limitations apply per mile of the beach, and not to the entire National Seashore.

*Response:* As described above, the NPS developed carrying capacity restrictions to work with other measures in the rule to mitigate public safety and visitor experience impacts during peak ORV use periods at the Seashore. The established capacity limits are intended to apply to beach segments open to ORV use at any particular time and not as a method of establishing the total allowable numbers of vehicles in the entire Seashore at any one time. Subsection (13) of the rule has been revised to make it clear that the carrying capacity applies to that portion of an ORV route that is open for ORV use.

### **Changes to the Final Rule**

After taking the public comments into consideration and after additional internal review, the NPS has made the following changes to the final rule:

Subsection 7.58(c)(1) has been revised to provide more specificity in the definition of *ORV corridor*, to describe the physical boundaries of the ORV corridor on the beach, and to ensure that the definition is consistent with the intent of the language in the FEIS and ROD.

Subsection 7.58(c)(2)(v) has been modified by removing the “in person” language from the rule to provide the Superintendent with greater flexibility for administering the ORV permit issuance procedures.

Subsection 7.58(c)(2)(vi) has been revised to clarify that the operator must affix the *proof* of the ORV permit to the vehicle covered by the permit for use off-road.

Subsection 7.58(c)(3)(v) has been revised to replace the phrase “jack stand” with “jack support board” to clarify exactly what piece of equipment the NPS intended to require. The phrase “jack support board” is also consistent with terminology used in other NPS ORV regulations.

Subsection 7.58(c)(7)(iii) has been modified to allow ORVs that transport mobility impaired individuals to remain on the beach, subject to conditions outlined in the special use permit issued for such activity. This paragraph has also been revised to clarify that these special use permits will be subject to all resource, safety, seasonal, and other closures implemented pursuant to subsection (10) of the rule.

Subsections 7.58(c)(8)(i) and (ii) have been revised to indicate exactly where commercial fishing permit holders can operate ORVs when engaged in authorized commercial fishing activities.

Subsection 7.58(c)(9) has been revised to clarify that designated ORV routes and ramps are subject to resource, safety, seasonal, and other closures. This paragraph was also modified to indicate that ramp 59 would be temporarily designated as an ORV ramp until ramp 59.5 is constructed. The language in the designated routes table for Hatteras Island was revised to provide a more accurate description of the current conditions at Hatteras Inlet spit, as a result of physical changes to the island caused by Hurricane Irene in August 2011. The language in the designated routes table for Ocracoke Island has been revised to indicate that ramp 59 will be temporarily designated as an ORV ramp until such time as ramp 59.5 is constructed and operational.

Subsection 7.58(c)(10) has been revised to clarify the Superintendent's authority to implement and remove closures, to better describe the criteria for establishing these closures, and to add language regarding the periodic review process.

The table in subsection 7.58(c)(12)(i) has been revised to clarify that the Superintendent may open *portions of* designated ORV routes in sea turtle nesting habitat to night driving from September 15 through November 15, if no turtle nests remain within these portions of ORV routes. The proposed rule stated that only entire routes with no turtle nests remaining could be opened to night driving.

Subsection 7.58(c)(13) has been revised to clarify that carrying capacity refers to the maximum number of vehicles allowed on any open ORV route, at one time, and is the length of the route (or, if part of the route is closed, the length of the portion of the route that is open) divided by 6 meters (20 feet).

### **The Final Rule**

This final rule establishes a special regulation pursuant to 36 CFR § 4.10(b) to manage ORV use at the Seashore. The special regulation will implement portions of the Selected Action, as described in the ROD, by designating ORV routes at the Seashore, establishing requirements to obtain a permit, and imposing date and time and other restrictions related to operation of ORVs, including vehicle and equipment standards. In addition, the final rule would correct a drafting error at § 7.58(b)(1) to clarify that the definitions only apply to § 7.58 and not to the entirety of 36 CFR Part 7. Further the rule would delete the definition of permittee at § 7.58(b)(1)(ii) as it is unnecessary and potentially confusing to the public, as the term could be applied to individuals holding different types of permits for different activities. This deletion

consequently requires redesignation of the remaining provisions of paragraph (b). The addition of paragraph (c) will implement portions of the Selected Action in the ROD, by designating ORV routes at the Seashore, establishing requirements to obtain a permit, and imposing date and time and other restrictions related to operation of ORVs, including vehicle and equipment standards.

The following explains some of the principal elements of the final rule in a question and answer format:

*What is an “Off-Road Vehicle” (ORV)?*

For the purposes of this regulation, an “off-road vehicle” or “ORV” means a motor vehicle used off of park roads (off-road). Not all ORVs are authorized for use at the Seashore; but all ORVs are subject to the vehicle requirements, prohibitions, and permitting requirements described below in this regulation.

*Do I need a permit to operate a vehicle off road?*

Yes. To obtain an ORV permit, you must complete a short education program, acknowledge in writing that you understand and agree to abide by the rules governing ORV use at the Seashore, and pay the applicable permit fee. Both weekly (7-day, valid from the date of issuance) and annual (calendar year) ORV permits would be available.

*Is there a limit to the number of ORV permits available?*

No. There would be no limit to the number of permits that the Superintendent could issue. However, use restrictions may limit the number of vehicles on a particular route at one time.

*Several of my family members have ORVs that we would like to use on Seashore beaches. Do we need to get a permit for each vehicle?*

Yes. You would need to get a permit for each vehicle that you want to use for driving on designated ORV routes. The proof of permit, such as a color-coded windshield sticker or hang tag for the rear-view mirror provided by the NPS, would need to be affixed, in a manner and location specified by the Superintendent, to all vehicles operated on designated ORV routes within the Seashore.

*Are there other types of permits that allow ORV use at the Seashore?*

Yes. Commercial fishermen and persons conducting authorized commercial activities on Seashore beaches are required, for those respective activities, to have a separate permit that may also authorize ORV use by the permittee. In addition, the Superintendent may issue a special use permit for temporary off-road vehicle use to authorize the North Carolina Department of Transportation to use Seashore beaches as a public way, when necessary, to bypass sections of NC Highway 12 that are impassable or closed for repairs; to allow participants in regularly scheduled fishing tournaments to drive in an area if such tournament use was allowed in that area for that tournament before January 1, 2009; or to allow vehicular transport of mobility impaired individuals via the shortest, most direct distance from the nearest designated ORV route or Seashore road to a predetermined location in a beach area in front of a village that is not otherwise open to ORV use.

*Where can I operate my vehicle off road?*

Once you obtain an ORV permit, you may operate a vehicle off road only on designated routes described in the tables located in § 7.58(c)(9). The tables also provide dates for seasonal

restrictions on driving these designated routes. Maps of designated ORV routes would be available in the Office of the Superintendent and on the Seashore website.

*Does the ORV permit guarantee that all designated ORV routes will be open for me to use?*

No. In addition to the referenced seasonal restrictions, ORV routes are also subject to temporary resource and safety closures. However, past experience indicates that substantial sections of the beach that are designated as ORV routes would remain open for ORV use even when other sections are temporarily closed.

*Are there any requirements for my vehicle?*

Yes. To receive a permit to operate a vehicle on designated ORV routes, your vehicle must be registered, licensed, and insured for highway use and comply with inspection regulations within the state, country, or province where the vehicle is registered. It must have no more than two axles and its tires must be U.S. Department of Transportation listed or approved, as described at:

<http://www.safercar.gov/Vehicle+Shoppers/Tires/Tires+Rating/Passenger+Vehicles>. You would also be required to carry in your vehicle a low-pressure tire gauge, shovel, jack, and jack support board.

*Can I drive my two-wheel-drive vehicle on designated ORV routes?*

Yes. Four-wheel-drive vehicles are recommended, but two-wheel-drive vehicles would be allowed if, in the judgment of the vehicle operator, the vehicle is capable of over-sand travel.

*Can I tow a boat or utility trailer with my vehicle on designated ORV routes?*

Yes. Towed boat and utility trailers with one or two axles would be allowed. Boat and utility trailers with more than two axles would be prohibited.

*Can I tow a travel trailer (i.e., a trailer with sleeping and/or restroom facilities) on designated ORV routes?*

No. Travel trailers would be prohibited on designated ORV routes, as camping at the Seashore is prohibited except in designated campgrounds.

*Can I ride my motorcycle off of Seashore roads?*

No. The operation of motorcycles would be prohibited on designated ORV routes. Motorcycles are generally not capable of travelling through the deep, soft sand or carrying the requisite equipment for self-extraction should they become stuck.

*Can I ride my all-terrain vehicle (ATV), or utility vehicle (UTV) off of Seashore roads?*

No. Vehicles that are not registered, licensed, and insured for highway use, including ATVs and UTVs, cannot lawfully be operated on park roads or designated off-road routes. Further, these vehicles have historically not been allowed to operate within the Seashore, and authorizing such use would limit the capacity for and interfere with the more significant and traditional use of four-wheel drive pick-up trucks, sport utility vehicles, and other passenger vehicles for off-road access associated with fishing, picnicking, sun bathing, surfing, wading, and swimming.

*What is the speed limit on designated ORV routes?*

The speed limit would be 15 miles per hour (unless otherwise posted), except for emergency vehicles when responding to a call.



*Are there right-of-way rules for ORV drivers in addition to those already in effect at the Seashore?*

Yes. Vehicles must yield to pedestrians and move to the landward side of the ORV corridor when approaching or passing a pedestrian on the beach. When traveling within 100 feet of pedestrians, ORVs must slow to 5 mph.

*Can I drive on designated ORV routes at night?*

Yes, but not at all times on all routes. ORVs would be allowed on designated ORV routes 24 hours a day from November 16 to April 30, subject to the terms and conditions established under an ORV permit. From May 1 to November 15, designated ORV routes in potential sea turtle nesting habitat (ocean intertidal zone, ocean backshore, and dunes) would be closed to ORVs from 9:00 p.m. until 7:00 a.m. However, from September 15 to November 15, the Superintendent may reopen portions of designated ORV routes at night if there are no turtle nests remaining. This is a minor change to the dates in the ROD. The NPS has decided it would be easier for the public to understand and more convenient to administer if the night driving dates coincided with some of the seasonal ORV route dates. Therefore, night driving may be allowed beginning on September 15 instead of September 16. Routes that are subject to these night driving restrictions, as well as routes or portions of routes identified as having no turtle nests remaining, will be depicted on maps available in the Office of the Superintendent and on the Seashore website.

*Can I leave my ORV parked on the beach if I don't drive it between 9:00 pm and 7:00 am during the dates night driving restrictions are in effect?*

No. During the restricted hours, all vehicles would be prohibited on designated ORV routes, including the beach.

*Is a separate permit required for night driving?*

No. It would be covered by the ORV permit required to drive on the designated ORV routes in the Seashore.

*I have a family member who is disabled or mobility-impaired. Can I use my ORV to drive that family member to the beach where we are gathering, even if it is not designated as an ORV route?*

Yes, if you obtain a special use permit (SUP) for that purpose. The SUP would allow you to transport mobility-impaired individuals to a predetermined location in a beach area in front of a village that is not otherwise open to ORV use. You would be subject to the terms and conditions set in the SUP. Additionally, you should keep in mind that with a standard ORV permit you would have access to many miles of beach open to ORVs year-round or seasonally. In those areas, vehicles may simply be parked in the ORV corridor.

*Do Commercial Use Authorization holders and commercial fisherman need a separate ORV permit?*

No. Commercial Use Authorizations (CUAs) would, as appropriate, also authorize ORV use by CUA holders but not their clients. ORV use by commercial fisherman who are actively engaged in a commercial fishing activity would be authorized ORV use under the terms of their commercial fishing special use permit.

*Can commercial fishermen drive in the vehicle-free areas (VFA)?*

Yes. In keeping with the current practice, commercial fishermen when actively engaged in their authorized commercial fishing activity may be allowed to operate an ORV on a beach

that is not otherwise designated for ORV use, provided that the beach is neither subject to a resource closure nor a lifeguarded beach. Lifeguarded beaches would be seasonally closed to ORVs by the Superintendent. Commercial fishing activities and use of associated fishing gear conflict with the significant concentrated beach use and associated swimming in these areas.

Commercial fishermen actively engaged in authorized commercial fishing activity who are carrying and able to present a fish-house receipt from the previous 30 days will be allowed to enter the beach at 5 a.m. on days when night driving restrictions are in effect for the general public.

### **Compliance with Other Laws and Executive Orders**

#### **Use of Off-Road Vehicles on the Public Lands (E.O. 11644)**

Section 3(4) of the E.O. provides that ORV “areas and trails shall be located in areas of the National Park system, Natural Areas, or National Wildlife Refuges and Game Ranges only if the respective agency head determines that off-road vehicle use in such locations will not adversely affect their natural, aesthetic, or scenic values.” Since the E.O. clearly was not intended to prohibit all ORV use everywhere in these units, the term "adversely affect" does not have the same meaning as the somewhat similar terms "adverse impact" or "adverse effect" commonly used in the National Environmental Policy Act of 1969 (NEPA). Under NEPA, a procedural statute that provides for the study of environmental impacts, the term "adverse effect" refers to any effect, no matter how minor or negligible. Section 3(4) of the E.O. by contrast, does not prescribe procedures or any particular means of analysis. It concerns substantive management decisions, and must instead be read in the context of the authorities applicable to

such decisions. The Seashore is an area of the National Park System. Therefore, the NPS interprets the E.O. term “adversely affect” consistent with its NPS Management Policies 2006. Those policies require that NPS only allows "appropriate use" of parks, and avoids "unacceptable impacts."

Specifically, this rule will not impede the attainment of the Seashore’s desired future conditions for natural and cultural resources as identified in the plan/FEIS. We have determined this rule will not unreasonably interfere with the atmosphere of peace and tranquility, or the natural soundscape maintained in natural locations within the Seashore. Therefore, we have determined that within the context of the resources and values of the Seashore, ORV use on the ORV routes designated by this rule (which are also subject to resource closures and other species management measures that will be implemented under the Selected Action in the ROD) will not adversely affect the natural, aesthetic, or scenic values of the Seashore.

Section 8(a) of the E.O. requires agency heads to monitor the effects of ORV use on lands under their jurisdictions. On the basis of the information gathered, agency heads shall from time to time amend or rescind designations of areas or other actions taken pursuant to the E.O. as necessary to further the policy of the E.O. The Selected Action for the plan/EIS, as described in the ROD, identifies monitoring and resource protection procedures, periodic review, and desired future conditions to provide for the ongoing and future evaluation of impacts of ORV use on protected resources. The park Superintendent has the existing authority under both this final regulation and under 36 C.F.R. § 1.5 to close portions of the Seashore as needed to protect park resources.

### **Regulatory Planning and Review (Executive Order 12866)**

The Office of Management and Budget (OMB) has determined that this document is a significant rule and has reviewed the rule in accordance with E.O. 12866. The assessments required by E.O. 12866 and the details of potential beneficial and adverse economic effects of the final rule can be found in the report entitled “Benefit-Cost Analysis of Final ORV Use Regulations in Cape Hatteras National Seashore” which is available online at <http://www.parkplanning.nps.gov/caha>.

(1) This rule will not have an effect of \$100 million or more on the economy. It will not adversely affect in a material way the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities.

(2) This rule will not create a serious inconsistency or otherwise interfere with an action taken or planned by another agency.

(3) This rule does not alter the budgetary effects of entitlements, grants, user fees, or loan programs or the rights or obligations of their recipients.

(4) OMB has determined this rule raises novel legal or policy issues since ORV use at the Seashore has been the subject of litigation in the past; a settlement agreement between the parties was reached in May 2008 and ORV use at the Seashore is currently managed under a court order/consent decree until the final rule is promulgated.

### **Regulatory Flexibility Act (RFA)**

The Department of the Interior certifies that this document will not have a significant economic effect on a substantial number of small entities under the RFA (5 U.S.C. § 601 et seq.). This certification is based on information contained in the report entitled “Benefit-Cost Analysis of Final ORV Use Regulations in Cape Hatteras National Seashore”, available for review online

at <http://www.parkplanning.nps.gov/caha>. As stated in that report, no entities, small or large, are directly regulated by the final rule, which only regulates visitors' use of ORVs.

As part of the socio-economic impact analysis for the plan/EIS, and based on suggestions from negotiated rulemaking advisory committee members, NPS conducted a small business survey, a visitor intercept survey, and a vehicle count study to supplement the existing sources of socio-economic data that were available in the public domain. We carefully considered this information in analyzing the rule's costs, benefits and impact.

While close to 100 percent of the rule's economic impacts would fall on small businesses, some popular areas, such as Cape Point, South Point, and Bodie Island spit, would have designated year-round or seasonal ORV routes. The presence of more vehicle free areas (VFAs) for pedestrians, combined with increased parking for pedestrian access, could increase overall visitation and thereby help businesses to recoup some of the revenues lost as a result of ORV restrictions.

The Selected Action described in the December 2010 Record of Decision, upon which the final rule is based, includes a number of measures designed to mitigate the effect on the number of visitors as well as the potential for indirect economic effects on village businesses that profit from patronage by Seashore visitors who use ORVs. These include: new pedestrian and ORV beach access points, parking areas, pedestrian trails, routes between dunes, and ORV ramps to enhance ORV and pedestrian access; a designated year-round ORV route at Cape Point and South Point, subject to resource closures when breeding activity occurs; and pedestrian shoreline access along ocean and inlet shorelines adjacent to shorebird pre-nesting areas until breeding activity is observed. In addition, the NPS will seek funding for an alternative transportation study and consider applications for businesses to offer beach and water shuttle services. These extra

efforts to increase overall access and visitor use under the Selected Action, which we developed with extensive public involvement, should increase the probability that the economic impacts are on the low rather than high end of the range.

### **Small Business Regulatory Enforcement Fairness Act (SBREFA)**

This rule is not a major rule under the SBREFA, 5 U.S.C. § 804(2). This rule:

- a. Does not have an annual effect on the economy of \$100 million or more.
- b. Will not cause a major increase in costs or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions.
- c. Does 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.

This determination is based on information contained in the report titled “Benefit-Cost Analysis of Final ORV Use Regulations in Cape Hatteras National Seashore”, available online at <http://www.parkplanning.nps.gov/caha>. This action will result in increased costs for those visitors desiring to operate ORVs on the beach, due to the requirement for an ORV permit. However, the price of the permit would be based on a cost recovery system and would not result in a major increase in costs to visitors. Businesses operating in the Seashore under a CUA or commercial fishermen operating under a commercial fishing special use permit would not need an ORV permit.

### **Unfunded Mandates Reform Act (UMRA)**

This rule does not impose an unfunded mandate on State, local, or tribal governments or the private sector of more than \$100 million per year. The rule does not have a significant or unique effect on State, local, or tribal governments or the private sector. The designated ORV routes are located entirely within the Seashore, and will not result in direct expenditure by State, local, or tribal governments. This rule addresses public use of NPS lands, and imposes no requirements on other agencies or governments. Therefore, a statement containing the information required by the UMRA (2 U.S.C. § 1531 et seq.) is not required.

**Takings (E.O. 12630)**

Under the criteria in E.O. 12630, this rule does not have significant takings implications. No taking of personal property will occur as a result of this rule. Access to private property located within or adjacent to the Seashore will not be affected by this rule. This rule does not regulate uses of private property. A takings implication assessment is not required.

**Federalism (E.O. 13132)**

Under the criteria in E.O. 13132, this rule does not have sufficient federalism implications to warrant the preparation of a Federalism summary impact statement. This rule only affects use of NPS-administered lands and imposes no requirements on other agencies or governments. A Federalism summary impact statement is not required.

**Civil Justice Reform (E.O. 12988)**

This rule complies with the requirements of E.O. 12988. Specifically, this rule:



(a) Meets the criteria of section 3(a) requiring that all regulations be reviewed to eliminate errors and ambiguity and be written to minimize litigation; and

(b) Meets the criteria of section 3(b)(2) requiring that all regulations be written in clear language and contain clear legal standards.

### **Consultation with Indian Tribes (E.O. 13175)**

Under the criteria in E.O. 13175 we have evaluated this rule and determined that it would have no potential effect on federally recognized Indian tribes.

On August 27, 2010, the NPS sent a letter to the Tuscarora Nation requesting information on any historic properties of religious or cultural significance to the tribe that would be affected by the plan/FEIS. The Tuscarora Nation has not informed the Seashore of any such properties.

### **Paperwork Reduction Act (PRA)**

This rule does not contain any new collection of information that requires approval by OMB under the PRA of 1995 (44 U.S.C. § 3501 et seq.). OMB has approved the information collection requirements associated with NPS special use permits and has assigned OMB control number 1024-0026 (expires 06/30/2013). 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)**

This rule implements portions of the plan/FEIS and ROD, which is a major Federal action significantly affecting the quality of the human environment. In accordance with NEPA, the NPS prepared a Draft Environmental Impact Statement (DEIS) and a Final Environmental

Impact Statement for the plan/FEIS. The plan/FEIS was released on November 15, 2010. The NPS Notice of Availability and the EPA Notice of Availability for the plan/FEIS were published in the *Federal Register* on November 15 and November 19, 2010, respectively. The plan/FEIS evaluated six alternatives for managing off-road motorized vehicle access and use at the Seashore, including two no-action alternatives. The ROD, which selected Alternative F, was signed on December 20, 2010, and a notice of the decision was published in the *Federal Register* on December 28, 2010. The purpose of this rule is to implement the Selected Action as described in the ROD. A full description of the alternatives that were considered, the environmental impacts associated with the project, and public involvement is contained in the plan/FEIS available online at: <http://www.parkplanning.nps.gov/caha>.

### **Information Quality Act (IQA)**

Information presented in the plan/FEIS is based on a wide range of scientific and peer reviewed data which was used to determine potential impacts and to develop a range of alternatives. Studies, surveys, or reports used or referenced are listed in the Reference section of the plan/FEIS, available for review at <http://www.parkplanning.nps.gov/caha>. The NPS believes that the information used in preparing the plan/FEIS and the subsequent decision to issue this rule is of sufficient quality, objectivity, utility, and integrity to comply with the IQA (Pub. L. 106-554).

### **Effects on the Energy Supply (E.O. 13211)**

This rule is not a significant energy action under the definition in E.O. 13211. A Statement of Energy Effects is not required.

**Administrative Procedure Act**

This rule is effective on February 15, 2012. Under 5 U.S.C. § 553(d), new rules ordinarily go into effect no less than thirty days after publication in the *Federal Register*, except under specified circumstances, including a finding by the agency that there is good cause for making the rule effective earlier. For this regulation, the NPS has determined under 5 U.S.C. § 553(d) and 318 DM 6.25 that this rule should be effective no later than February 15, 2012. The NPS has found that good cause exists for this effective date, for the following reasons:

(1) The Record of Decision (ROD) for the Cape Hatteras ORV Plan/Final Environmental Impact Statement (plan/FEIS), upon which this rule is based, was signed on December 20, 2010, and the public was informed of the availability of the plan/FEIS and ROD through notice in the *Federal Register* on December 28, 2010. Therefore, by February 15, 2012, the public already will have had 415 days notice of the NPS decision.

(2) An integral part of the plan/EIS and rule is the species management strategies described in the ORV management plan/EIS, which were developed to manage ORV use in a manner conducive to the protection of the migratory birds and sea turtle species that rely on the Seashore's beach habitat for nesting. The shorebird breeding season at the Seashore begins in early March. Implementation of the rule and the associated species management strategies would be most effective if the designated ORV routes and ORV permit and education requirements were implemented, and signs reflecting the new requirements were to be installed, prior to the start of the breeding season. A significant change in management procedures and information regarding ORV requirements implemented after the breeding season begins would compromise the efficiency and effectiveness of ORV management and species protection at the Seashore and be confusing to Seashore visitors.

(3) There would be no benefit to the public in delaying the effective date of this rule, given that there has already been substantial notice, including the court approved deadline for completion of the rule, that the Seashore will be operating under the new ORV rule for the 2012 breeding season.

The above-described harms to the public resulting from a procedural delay of this rule should therefore be avoided, and an effective date of February 15, 2012, is warranted.

#### **Clarity of this Rule.**

We are required by E.O. 12866 and E.O. 12988, and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (a) Be logically organized;
- (b) Use the active voice to address readers directly;
- (c) Use clear language rather than jargon;
- (d) Be divided into short sections and sentences; and
- (e) Use lists and tables wherever possible.

#### **List of Subjects in 36 CFR Part 7**

District of Columbia, National Parks, Reporting and recordkeeping requirements. In consideration of the foregoing, the National Park Service proposes to amend 36 CFR Part 7 as follows:

#### **PART 7—SPECIAL REGULATIONS, AREAS OF THE NATIONAL PARK SYSTEM**

1. The authority for part 7 continues to read as follows:

**Authority:** 16 U.S.C. 1, 3, 9a, 462(k); Sec. 7.96 also issued under 36 U.S.C. 501 -511, D.C. Code 10-137 (2001) and D.C. Code 50-2201 (2001)

2. In § 7.58,

A. Revise the introductory language in paragraph (b)(1).

B. Remove paragraph (b)(1)(ii),

C. Redesignate paragraphs (b)(1)(iii) through (b)(1)(v) as (b)(1)(ii) through (b)(1)(iv).

D. Add paragraph (c)

The revisions to read as follows:

**§ 7.58 Cape Hatteras National Seashore.**

\* \* \* \* \*

(b) \* \* \*

(1) *Definitions.* As used in this section:

\* \* \* \* \*

(c) *Off-road motor vehicle use.*

(1) *Definitions.* In addition to the definitions found in § 1.4 of this chapter, the following terms apply in this paragraph (c):

*ORV* means a motor vehicle used off of park roads (off-road), subject to the vehicle requirements, prohibitions, and permitting requirements described in this regulation.

*ORV corridor* means the actual physical limits of the designated ORV route in the Seashore. On the landward side, the ORV corridor on Seashore beaches will be marked when possible by posts that are located seaward of the toe of the dune or the vegetation line. On the seaward side, the corridor runs to the water line, which will not be marked by posts unless

necessary. Where the ocean beach is at least 30 meters wide above the high tide line, the landward side of the corridor will be posted at least 10 meters seaward of the toe of the dune.

(2) *ORV permits.* The Superintendent administers the NPS special park use permit system at the Seashore, including permits for ORV use, and charges fees to recover NPS administrative costs.

(i) A permit issued by the Superintendent is required to operate a vehicle on designated ORV routes at the Seashore.

(ii) Operation of a motor vehicle authorized under an ORV permit is limited to those routes designated in this paragraph (c).

(iii) There is no limit to the number of ORV permits that the Superintendent may issue.

(iv) Annual ORV permits are valid for the calendar year for which they are issued. Seven-day ORV permits are valid from the date of issue.

(v) In order to obtain a permit, an applicant must comply with vehicle and equipment requirements, complete a short education program in a manner and location specified by the Superintendent, acknowledge in writing an understanding of the rules governing ORV use at the Seashore, and pay the permit fee.

(vi) Each permit holder must affix the proof of permit, in a manner and location specified by the Superintendent, to the vehicle covered by the permit for use off-road.

(3) *Vehicle and equipment requirements.* The following requirements apply for driving off- road:

(i) The vehicle must be registered, licensed, and insured for highway use and must comply with inspection regulations within the state, country, or province where the vehicle is registered.

- (ii) The vehicle must have no more than two axles.
- (iii) A towed boat or utility trailer must have no more than two axles.
- (iv) Vehicle tires must be listed or approved by the U.S. Department of Transportation.
- (v) The vehicle must carry a low-pressure tire gauge, shovel, jack, and jack support board.

(4) *Vehicle inspection.* Authorized persons may inspect the vehicle to determine compliance with the requirements of paragraphs (c)(3)(i) through (c)(3)(v).

(5) The off-road operation of a motorcycle, all-terrain vehicle (ATV) or utility vehicle (UTV) is prohibited.

(6) The towing of a travel trailer (i.e., a trailer with sleeping or bathroom facilities) off-road is prohibited.

(7) *Special use permits for off-road driving, temporary use.* The Superintendent may issue a special use permit for temporary off-road vehicle use to:

(i) Authorize the North Carolina Department of Transportation to use Seashore beaches as a public way, when necessary, to bypass sections of NC Highway 12 that are impassable or closed for repairs; or

(ii) Allow participants in regularly scheduled fishing tournaments to drive in an area if such tournament use was allowed in that area for that tournament before January 1, 2009; or

(iii) Allow vehicular transport of mobility impaired individuals via the shortest, most direct distance from the nearest designated ORV route or Seashore road to a predetermined location in a beach area in front of a village that is not otherwise open to ORV use.

Such special use permits are subject to the resource, safety, and other closures implemented pursuant to subsection (10), and may only be used in a manner consistent with the terms and conditions of the permit.

(8) *Commercial fishing vehicles.* The Superintendent, when issuing a commercial fishing permit, may authorize the holder, when actively engaged in authorized commercial fishing, to operate a vehicle off-road.

(i) Such authorization may allow off-road driving on a beach that is not otherwise designated for ORV use, provided that the beach is neither subject to a resource closure nor a lifeguarded beach.

(ii) Such authorization may allow off-road driving beginning at 5 a.m. on days when night driving restrictions are in effect, to set or tend haul seine or gill nets, if the permit holder is carrying and able to present a fish-house receipt from the previous 30 days.

(9) *ORV routes.* The following tables indicate designated ORV routes. The following ramps are designated for off-road use to provide access to ocean beaches: 2.5, 4, 23, 25.5, 27, 30, 32.5, 34, 38, 43, 44, 47.5, 49, 55, 59, 59.5, 63, 67, 68, 70, and 72. Designated ORV routes and ramps are subject to resource, safety, seasonal and other closures implemented pursuant to subsection (10). Soundside ORV access ramps are described in the table below. For a village beach to be open to ORV use during the winter season, it must be at least 20 meters (66 feet) wide from the toe of the dune seaward to mean high tide line. Maps depicting designated routes and ramps are available in the Office of the Superintendent and for review on the Seashore website.

<b>BODIE ISLAND - DESIGNATED ROUTES</b>	
<b>YEAR ROUND</b>	Ramp 2.5 (0.5 miles south of the southern boundary of Coquina Beach) to 0.2 miles south of ramp 4



<p><b>SEASONAL</b> <b>September 15 to March 14</b></p>	<p>0.2 miles south of ramp 4 to the eastern confluence of the Atlantic Ocean and Oregon Inlet</p>
--	---

<p><b>HATTERAS ISLAND - DESIGNATED ROUTES</b></p>	
<p><b>YEAR ROUND</b></p>	<p>1.5 miles south of ramp 23 to ramp 27</p> <p>Ramp 30 to ramp 32.5</p> <p>The following soundside ORV access routes from NC Highway 12 to Pamlico Sound between the villages of Salvo and Avon: soundside ramps 46, 48, 52, 53, 54 and the soundside ORV access at Little Kinnakeet</p> <p>Ramp 38 to 1.5 miles south of ramp 38</p> <p>The following soundside ORV access routes from NC Highway 12 to Pamlico Sound between the villages of Avon and Buxton: soundside ramps 57, 58, 59, and 60.</p> <p>0.4 miles north of ramp 43 to Cape Point to 0.3 miles west of “the hook”</p> <p>Interdunal route from intersection with Lighthouse Road (i.e., ramp 44) to ramp 49, with one spur route from the interdunal route to the ORV route below</p> <p>Ramp 47.5 to east Frisco boundary</p> <p>A soundside ORV access route from Museum Drive to Pamlico Sound near Coast Guard Station Hatteras Inlet</p> <p>Pole Road from Museum Drive to Spur Road to Pamlico Sound, with one spur route, commonly known as Cable Crossing, to Pamlico Sound and four spur routes to the ORV route below</p> <p>Ramp 55 southwest along the ocean beach for 1.6 miles, ending at the intersection with the route commonly known as Bone Road</p>
<p><b>SEASONAL</b> <b>November 1 to March 31</b></p>	<p>0.1 mile south of Rodanthe Pier to ramp 23</p> <p>Ramp 34 to ramp 38 (Avon)</p> <p>East Frisco boundary to west Frisco boundary (Frisco village beach)</p>

	East Hatteras boundary to ramp 55 (Hatteras village beach)
--	--

<b>OCRACOKE ISLAND - DESIGNATED ROUTES</b>	
<b>YEAR ROUND</b>	<p>Ramp 59 to ramp 63. After ramp 59.5 is constructed, it will replace ramp 59 for ORV access and the route will be from ramp 59.5 to ramp 63.</p> <p>Three routes from NC Highway 12 to Pamlico Sound located north of the Pony Pens, commonly known as Prong Road, Barrow Pit Road, and Scrag Cedar Road.</p> <p>1.0 mile northeast of ramp 67 to 0.5 mile northeast of ramp 68</p> <p>A route from NC Highway 12 to Pamlico Sound located near Ocracoke Campground, commonly known as Dump Station Road.</p> <p>0.4 miles northeast of ramp 70 to Ocracoke inlet</p> <p>A route from ramp 72 to a pedestrian trail to Pamlico Sound, commonly known as Shirley's Lane</p>
<b>SEASONAL</b> <b>September 15 to March 14</b>	<p>A seasonal route 0.6 mile south of ramp 72 from the beach route to a pedestrian trail to Pamlico Sound</p> <p>A seasonal route at the north end of South Point spit from the beach route to Pamlico Sound</p>
<b>November 1 to March 31</b>	<p>0.5 mile northeast of ramp 68 to ramp 68 (Ocracoke Campground area)</p>

(10) *Superintendent's closures*. The Superintendent will temporarily limit, restrict, or terminate access to routes or areas designated for off-road use in accordance with public health and safety, vehicle carrying capacity and other ORV management criteria, natural and cultural resource protection, applicable species management strategies including buffer distances, and desired future conditions for threatened, endangered, state-listed and special status species. The Superintendent will conduct periodic reviews of the criteria for and results of these closures to

assess their effectiveness. The public will be notified of such closures through one or more of the methods listed in § 1.7(a) of this chapter. Violation of any closure is prohibited. Such closures shall be removed as determined by the Superintendent based on the same criteria.

(11) *Rules for Vehicle Operation.* (i) Notwithstanding the definition of “Public Vehicular Area” (PVA) in North Carolina law, the operator of any motor vehicle anywhere in the Seashore, whether in motion or parked, must at all times comply with all North Carolina traffic laws that would apply if the operator were operating the vehicle on a North Carolina highway.

(ii) In addition to the requirements of Part 4 of this chapter, the following restrictions apply:

(A) A vehicle operator must yield to pedestrians on all designated ORV routes.

(B) When approaching or passing a pedestrian on the beach, a vehicle operator must move to the landward side to yield the wider portion of the ORV corridor to the pedestrian.

(C) A vehicle operator must slow to 5 mph when traveling within 30.5 meters (100 feet) or less of pedestrians at any location on the beach at any time of year.

(D) An operator may park on a designated ORV route, but no more than one vehicle deep, and only as long as the parked vehicle does not obstruct two-way traffic.

(E) When driving on a designated route, an operator must lower the vehicle’s tire pressure sufficiently to maintain adequate traction within the posted speed limit.

(F) The speed limit for off road driving is 15 mph, unless otherwise posted.

(12) *Night Driving Restrictions.*

(i) Hours of operation and night driving restrictions are listed in the following table:

<b>HOURS of OPERATION/NIGHT DRIVING RESTRICTIONS</b>	
November 16 – April 30	All designated ORV routes are open 24 hours a day.

May 1 – September 14	Designated ORV routes in sea turtle nesting habitat (ocean intertidal zone, ocean backshore, dunes) are closed from 9 p.m. to 7 a.m.
September 15 – November 15	Designated ORV routes in sea turtle nesting habitat (ocean intertidal zone, ocean backshore, dunes) are closed from 9 p.m. to 7 a.m., but the Superintendent may open portions of designated ORV routes in sea turtle nesting habitat (if no turtle nests remain), 24 hours a day.

(ii) Maps available in the office of the Superintendent and on the Seashore's website will show routes closed due to night driving restrictions, and routes the Superintendent opens because there are no turtle nests remaining.

(13) *Vehicle carrying capacity.* The maximum number of vehicles allowed on any particular ORV route, at one time, is the length of the route (or, if part of the route is closed, the length of the portion of the route that is open) divided by 6 meters (20 feet).

(14) Violating any of the provisions of this paragraph, or the terms, conditions, or requirements of an ORV or other permit authorizing ORV use is prohibited. A violation may also result in the suspension or revocation of the applicable permit by the Superintendent.

(15) *Information Collection.* As required by 44 U.S.C. § 3501 et seq. The Office of Management and Budget has approved the information collection requirements contained in this paragraph. The OMB approval number is 1024-0026. The NPS is collecting this information to provide the Superintendent data necessary to issue ORV special use permits. The information will be used to grant a benefit. The obligation to respond is required to order to obtain the benefit in the form of the ORV permit.

---

Acting Assistant Secretary for Fish and Wildlife and Parks

---

Date

Communications Plan  
Cape Hatteras National Seashore  
Final Special Regulation for Off-Road Vehicle Use

**Issue:** The National Park Service (NPS) is publishing a final special regulation for the management of off-road vehicle (ORV) use at Cape Hatteras National Seashore. The final special regulation is supported by a Final Off-Road Vehicle Management Plan / Environmental Impact Statement (final plan/EIS) and Record of Decision (ROD). The ROD was signed on December 20, 2010. The “selected action” in the ROD identified ORV routes, vehicle-free areas, and other ORV management measures such as an ORV permit system, vehicle requirements, and night driving restrictions that will be included in the special regulation.

On July 6, 2011, the National Park Service published a proposed rule for managing off-road vehicles at the Seashore. The proposed rule was available for public comment from July 6, 2011 through September 6, 2011. However, Hurricane Irene made landfall in the area of the Seashore on Saturday August 27, 2011. To accommodate those who may have been affected by the hurricane, the NPS reopened the public comment period on September 9, 2011 and extended the deadline to midnight on September 19, 2011. The NPS received approximately 21,000 public comments on the proposed rule. After taking the public comments into consideration and after additional internal review, the NPS made revisions to the final rule

The intended effect of this rule is to carefully manage ORV use at the Seashore to protect and preserve natural and cultural resources and natural processes, to provide a variety of visitor use experiences while minimizing conflicts among various users, and to promote the safety of all visitors.

Executive Order 11644 of 1972, amended by Executive Order 11989 of 1977, requires federal agencies permitting ORV use on federal lands to publish regulations designating specific trails and areas for this use. The NPS implemented these executive orders in 36 C.F.R. § 4.10, which provides that routes and areas designated for off-road vehicle use shall be promulgated as special regulations. ORVs have operated on the Seashore’s beaches since before the park unit was established, but the required regulation has never been issued. As a result of the settlement of litigation on the Seashore’s Interim Protected Species Management Strategy/ Environmental Assessment, the Seashore is providing enhanced resource protection under a court approved consent decree pending the completion of a final regulation for ORV use.

The Seashore is operating under a court order/consent decree until the special regulation is completed. The consent decree deadline for publishing the final regulation is currently November 15, 2011. The NPS is working with the U.S. Attorney’s Office to request from the Court an extension of the deadline, contingent upon uncertainties about NPS/WASO, DOI and OMB review time.

ORV and recreational fishing groups, local businesses, and the Dare and Hyde County governments are concerned about possible economic effects from ORV management that would close certain popular ORV routes during the breeding season to protect nesting shorebirds and sea turtles. They also are concerned about the establishment of vehicle-free areas in the Seashore for the use of visitors who prefer to enjoy the beach without the presence of vehicles. Environmental organizations such as Defenders of Wildlife and the North Carolina Audubon Society are concerned that the Seashore may not provide sufficient protection from human disturbance for the Seashore’s federally and state listed species and species of management concern.

Both ORV and environmental interest groups have been involved in previous litigation against the NPS and the USFWS over Seashore management of listed species and USFWS designation of critical habitat at the Seashore. NPS expects litigation at the conclusion of the rulemaking process.

### **Talking Points**

1. The Seashore is home to several federally and state listed species and species of management concern. NPS is required to conserve and protect all of these species, as well as the other resources and values of the Seashore.
2. The Seashore provides a variety of visitor experiences. It is a long, essentially linear park, visitation is high, and parking spaces near roads are limited. Some popular beach sites, particularly those near the inlets and Cape Point, are a distance from established or possible parking spaces. ORVs have long served as a primary form of access for many portions of the beach in the Seashore, and continue to be the most practical available means of access and parking for many visitors.
3. NPS respects the diverse interests and values held by members of the public regarding ORV management and wildlife conservation. We believe the proposed special regulation will provide visitors to the Seashore with a wide variety of access opportunities for both ORV and pedestrian users, while ensuring the protection of wildlife at the Seashore.
4. The final regulation will be published in the Federal Register and will become effective 30 days after publication.

### **Rollout Strategy and Communications Plan**

- This contentious issue had a significant amount of public involvement during public scoping, negotiated rulemaking, the public comment period on the Draft Plan/EIS, and the public comment period on the proposed rule. Significant public interest in the issue is expected to continue, and litigation is likely. There will be substantial media coverage at the local level and some regional and national media coverage.
  - When the final regulation is published in the *Federal Register*, the Seashore will publicize it through a press release to be emailed to the Seashore's mailing list and through the NPS Planning, Environment and Public Comment (PEPC) web site for the project.
  - The Seashore will also make the final rule and supporting documents on PEPC. Public comments are not accepted on final rules.
- Just before publication of the regulation in the *Federal Register*, the Seashore will notify the North Carolina Congressional delegation staff, as well as local elected officials, of the imminent publication of the final regulation.