



Cape Cod National Seashore

Environmental Assessment

OPTIONS FOR MANAGING ORV ACCESS

FEBRUARY 15, 2007

SUMMARY

This Environmental Assessment (EA) addresses proposed modifications of the rules guiding management of off-road vehicle (ORV) access to the beaches of Cape Cod National Seashore (CCNS). The summer of 2006 was the first time that actions necessary to protect the federally-threatened piping plover resulted in closing the ORV corridor. Currently, management of ORVs is guided by rules developed in 1998 through a negotiated rule making process. The negotiated rule, also called the "Neg Reg" (36 CFR 7.67), established specific dates and times sections of the ORV corridor could be accessed for ORV use. The Neg Reg also established that ORV activity would be managed in accordance with the guidelines in Appendix G of the U.S. Fish and Wildlife Service's (USFWS) Atlantic Coast Piping Plover Recovery Plan (USFWS 1996). The proposed modifications in this EA are in the spirit of the Neg Reg and would give management options to make minor adjustments to the timing and location elements of the Neg Reg. If less than half a mile of ORV corridor is accessible during the day (near total closure) and are intended to provide Seashore managers more flexibility to allow ORV access while continuing to protect the threatened piping plover (*Charadrius melodus*), other natural resources, public safety, and other types of visitor experience.

In 2006, the distribution and timing of protective buffers for piping plover broods resulted in complete closure of the 8.5 mile ORV corridor for 14 days in late June and early July, and a total of 31 days in which 0.2 miles or less was open to ORVs for daytime access. Increased plover nesting activities in the last number of years has caused more access points to be closed and fewer sections of beach to be utilized for ORV use. 2006 was the first time all access points were closed in the daytime at the same time.

This EA evaluates the impacts of two approaches to managing ORV access at the park. Under alternative one, the No Action Alternative, the CCNS would not modify access to the ORV corridor, and management would continue as in previous years. Impacts to park resources and visitors would be unchanged and impacts to natural resources would remain as assessed in the 1997 EA for the Neg Reg (Federal Register 63:9143-9148). Alternative two would involve adjusting the dates, times, and locations ORVs could be allowed to access the beach. This alternative also stipulates that management would not invoke the option to modify ORV access unless there was a near or total closure of access to the existing ORV corridor as currently managed. Specifically, if less than half a mile of the existing 8.5 miles ORV corridor is accessible during the day (near total closure), this alternative would give park management options to:

- Open access to the ORV corridor near High Head and Head of the Meadow prior to July 1st
- Open access to the ORV corridor north of High Head prior to July 21st, and
- Open access to Coast Guard Beach in Truro to daytime ORV use until June 30th
- As a last resort, permit ORV access to 0.4 miles of beach at Herring Cove north, with access from an existing parking lot up until June 30th.

The proposed actions would be implemented only to provide up to a half mile of ORV corridor to avoid near total closure of ORV access to the beach. Further, management

would remain consistent with the guidelines in Appendix G of the Piping Plover Recovery Plan. While the duration of impact to natural resources could increase, there is no expectation of more than minor resource impacts. However, these changes would not guarantee that a total ORV closure can be avoided in future years. Alternative 2 is the Preferred Alternative.

To further accommodate ORV corridor users affected by closures, management will consider permitting Self Contained Vehicles (SCV) to park overnight at Race Point Beach and Head of the Meadow parking areas until June 30th and continue to make Pilgrim Heights and the Province Lands parking areas available to SCVs. The park will continue to waive day use beach fees for ORV and SCV permit holders at Herring Cove Beach, Race Point Beach, and Head of the Meadow Beach if a near total closure occurs.

Alternatives considered but rejected include reviving use of old access points that have been closed to ORVs since the 1980s and 90s. These suggestions were rejected because of the damage that would occur to natural resources, including state-listed species, and dunes and vegetation that have been recovering from past ORV use for 20 to 30 years. Reopening of old access points was also determined to be non-productive, because exit points and routes were located at or near beach areas heavily used by nesting piping plovers and would likely be closed anyway. Other areas reviewed were determined to be too fragile from storm over-washes in recent years.

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1.0 INTRODUCTION

PARK SIGNIFICANCE

CCNS was established to protect Cape Cod (Cape), a large portion of the largest glacial peninsula in the world. The Cape is a striking geographic feature that extends well out into the Atlantic Ocean. One of its outstanding elements is the Great Beach, a long, uninterrupted natural beach. CCNS also contains a variety of physiographic features — a mosaic of landscapes and their accompanying flora and fauna that is unique in its combination and diversity. This includes habitat for state and federally-protected species and globally rare plant communities. In the National Seashore, the relationship of the land to the wind, waves, tides and rain, remain largely unaffected by development, so that it is easy to observe the actions of natural elements and their affect on the land.

However, undisturbed prehistoric archeological sites also document the early presence of people on Cape Cod. In fact, the interactions of humans with nature on the Cape have gone on for thousands of years. Centuries of continuous human occupation have resulted in the development of occupations, folkways and pastimes that have given us some of the nation's most compelling stories.

Because of the Cape's prominent position in the Atlantic Ocean, it has been a key landmark for explorers and mariners. The Pilgrims made their first landfall and created the Mayflower Compact here. The surge in settlement that followed featured a dynamic whaling and fishing industry, as well as a long and famous tradition of shellfishing. Cape Cod's name reflects this heritage. The many lighthouses, lifesaving and Coast Guard stations that dot the Cape reflect this heritage as well. In addition, because of the Cape's location, it was the site of many communications milestones, including the French trans-Atlantic cable and the first two-way trans-Atlantic wireless communication for the U.S., sent and received by Guglielmo Marconi in 1903. The beauty, sense of solitude and other aesthetic values of the Cape have created an intense affection felt by residents of the Northeast, who have come here for inspiration and renewal for more than 100 years. This includes a longstanding tradition of use of the area by artists and writers including Edward Hopper, Mark Rothko, Jackson Pollack, John Dos Passos, Mary McCarthy, and Henry David Thoreau. At present, sunbathing, ocean swimming and sportfishing are also a part of this interactive relationship. As time goes by, the relatively undisturbed character of the park so close to densely populated urban areas is becoming more and more precious.

BACKGROUND

Since the creation of CCNS in 1961, ORV operations have been regulated by either the CCNS or the towns. During the 1960s and 1970s, ORV trails and routes were extensive. Almost the entire beach from Long Point in Provincetown to Nauset Inlet in Eastham was available for ORV use. Additionally, there was an extensive system of inner routes and trails through the back dunes of Provincetown and North Truro. In 1978, Eastham closed the route between Coast Guard Beach and Nauset Inlet because the Blizzard of '78 had

destroyed the available ORV route. At approximately the same time, Wellfleet Town Meeting banned the use of ORVs on their beach between June 15 and September 15. Then in the early 1980s Wellfleet closed the outer beach to ORV use year-round. As a result, the ORV route on the beach was limited to the area from the Wellfleet-Truro town line north to Long Point in Provincetown.

In 1980, the Conservation Law Foundation (CLF) sued the Seashore for what the CLF believed were inadequate controls over ORV driving within the Seashore. The Seashore created a new ORV management plan that addressed a variety of concerns. The ORV Management Plan of 1981 closed all inner routes and trails to the public except for dune cottage residents or their caretakers, dune tour operations, and National Park Service (NPS) patrols. The 1981 plan also limited the ORV route on the beach from Hatches Harbor, in Provincetown, to the Wellfleet town line, and only allowed ORV operation on the beach from Head of the Meadow in Truro to the Wellfleet town line at night.

In 1984, the judge hearing the suit ruled that the Seashore's 1981 plan was adequate and ORV use was deemed to be appropriate. In addition, the judge suggested the 1981 plan could be improved, but did not require it. Following the judge's suggestion, the ORV Management Plan of 1985 was implemented. The 1985 plan permanently closed the portion of the ORV corridor between High Head in Truro and the Wellfleet town line. It further restricted the use of ORVs by creating a season for operation between April 15 and November 15. ORVs could operate on the beach between November 16 and April 14 only for the purposes of accessing town shellfish beds, picking flotsam and jetsam, or in the case of dune cottage residents or their caretakers, for accessing their cottages. A limited access pass (LAP) was required for these uses and no travel was permitted within two hours of high tide.

In 1986, the piping plover, a small beach nesting shorebird, was federally listed as a threatened species. The Seashore is entrusted by law and by mission to protect threatened and endangered species occurring within the park. As part of the Seashore's efforts to protect piping plovers, portions of the existing ORV corridor are closed when piping plover chicks are present. The Seashore's proactive shorebird management plays a significant role in the recovery of this species. In 1985, CCNS accounted for 5% of the Atlantic Coast population of piping plovers. These protection measures, along with other management actions, have allowed plover populations within the Seashore to increase from 18 pairs in 1985 to 74 pairs in 2006. As a result of increasing plover populations and the dynamic nature of nesting patterns, the amount of available ORV corridor decreased over the years. In 1995 as little as 0.3 miles of ORV corridor were available for several weeks. This situation led to a call for new regulations.

Early resource management and scientific studies by UMASS Amherst clearly identified adverse impacts caused by ORVs and how these impacts could be avoided (Leatherman and Godfrey 1979). Court challenges in the 80s and 90s by the CLF and others questioned the appropriateness of ORV usage in the park and conflicts with general park users. The park presented, and the court agreed, that ORV usage is an appropriate recreational activity at CCNS. These challenges and issues have been addressed or

resolved into what is now the park's ORV program. Current ORV use is limited compared to pre-park conditions (1961). Recent management efforts are an attempt to protect the resource while trying to accommodate use, and not an attempt to eliminate the ORV program. The court documents also recognized that the NPS has discretion in managing the ORV program as long as park managers could ensure that the stated management goals are supported. Specifically:

- The US Court recognized the government's evaluation, assessment, oversight and management of ORV program in 6/88 Memorandum and Order with respect to Civil Action No. 81-1004-N, pg.11, 19.
- In the 1/89 appeals process, the US Court of Appeals for the First Circuit, No. 88-1720, the Court referenced the standards under which a government agency (the NPS) needs to demonstrate that decisions made are not arbitrary and capricious, but are based on relevant factors. The Court also recognized the operational management actions of adding a number of patrol rangers to monitor ORV usage, helped to insure that significant ecological damage was not taking place.

The need for new regulation was motivated by the inflexibility of the existing rule to deal with changing conditions on the beach. To revise the regulation, in 1995 the Seashore entered into a negotiated rule making process (Neg Reg) with 23 agencies, organizations, and interest groups with long-term interests and involvement in ORV management and natural resource conservation at CCNS. Members from the environmental, mobile sports, fishing and ORV communities, along with representatives from USFWS and Wildlife Service, Massachusetts Division of Fisheries and Wildlife, and the six towns inside the Seashore's boundaries comprised the rule making committee. These groups met over a period of three months, with the objective of reaching consensus on a new ORV management plan. In November 1995 the committee presented a proposed rule for ORV management at CCNS. The rule was published in the Federal Register for public comment and became codified in 36 Code of Federal Regulations (CFR) in 1998 (36 CFR 7.67). This regulation permits ORV use at CCNS on designated roads and areas in Provincetown and Truro. The regulation describes where and when ORV use is permitted. There are three pages in the regulations that list special requirements and restrictions to ensure natural, cultural, and aesthetic resources are protected along the ORV corridor. (Please see map #1 depicting CCNS and the ORV Corridor.)

The committee agreed to a variety of mutual concerns. (See Federal Register 63:9143-9148 for the complete final rule). ORV use remained limited to April 15 through November 15. The designated route was established, which included the beach from Hatches Harbor in Provincetown to High Head in Truro. The portion of beach from Exit 8 in Truro to High Head would be open from July 21 through November 15. The area from Coast Guard Beach in Truro to Longnook Beach in Truro would be open for the purpose of nighttime fishing as posted, and the area from High Head to Head of the Meadow Beach would be open from July 1 through August 31. Plover nesting and other resource or public safety issues could require that all or portions of the corridor be closed for indefinite periods of time. The amount of open ORV corridor is typically less in the

beginning of the season than in August due to the terms of the negotiated rule. Up to 10.5 miles of ORV corridor could be open in late July and August, depending on the availability of the High Head portion of the corridor, the location and condition of beach cuts and the distribution of unfledged plover chicks near access points and on the beaches.

The negotiated rule also addressed NPS responsibilities for monitoring the use and condition of the ORV oversand routes for the purpose of reviewing the effects of vehicles on natural, cultural and aesthetic resources in designated corridors. The rule further stated that information gathered from this process will be used as the basis for an annual report to the Secretary of the Interior and the public describing the results of the monitoring conducted.

Current Status

Due to population increases of piping plovers and nesting dynamics, increasing amounts of the ORV corridor have been closed to protect plover chicks. 2006 was the first time all access points were closed at the same time. As a result of the 2006 total closure, the park considered and eventually initiated two accommodations for traditional ORV users. One accommodation was to allow the ORV permit holders to gain free access to fee beach parking areas in the northern part of the park for day use. This allowed limited beach access, especially for fishermen, to the general vicinity of the corridor while maintaining protection of plover broods. The park also granted immediate access to the Pilgrim Springs parking area for overnight (SCV) following previous management practice. Because of many complaints about mosquitoes, overnight SCV stays were also permitted at the Province Lands Visitor Center parking area.

The closure blocked the ability of guests to travel by ORV to the Race Point Light Keeper's House and participate in the overnight program sponsored by the Cape Cod Chapter of the American Lighthouse Foundation, which leases the lighthouse from the U.S. Coast Guard (USCG). To accommodate the guests, park management provided a parking area within a half mile of the Light. However, the soft nature of the sand road, weight of luggage and supplies, and uncertain weather for the walk, forced the Foundation to cancel all reservations during the 31-day period. (See Section 5.3). ORV closures also affected several local businesses that depend heavily on ORV users. This loss of business came during the height of the tourist season - a critical time for many local businesses and the community.

PURPOSE AND NEED

Since the 1980s, park planning documents that reference ORV use have focused on four ORV management objectives:

1. To preserve the coastal ecosystems of CCNS
2. To minimize or eliminate those adverse impacts that off-road vehicles have on the environment, including specifically impacts on vegetation and wildlife.

3. To provide visitor enjoyment by reducing conflict between ORVs and other visitor activities.
4. To provide for visitor use within management constraints of personnel and funds.

In 1995 as little as .3 miles of ORV corridor were available for several weeks. The park then entered into the Neg Reg process to try and address this issue. The 1998 Neg Reg provided a means for meeting these management objectives while contributing to the park's goal of providing a range of opportunities for visitors to enjoy park resources. However, in recent years, ORV access managed in accordance with the 1998 Neg Reg has resulted in periods of near-total closure of ORV access to the corridor. In 2006, the existing management approach resulted in total closure to ORV access. The primary reason for these closures was the establishment of ORV buffers to protect broods of the threatened piping plover in accordance the NPS mission and the Endangered Species Act, and as guided by Appendix G of the Piping Plover Recovery Plan (USFWS 1996).

The purpose of this proposed action is to attempt to avoid complete or near-complete ORV closures in a manner that is consistent with the spirit of the Neg Reg, including those aspects of the Neg Reg that provide for the protection of natural and cultural resources. The 1998 Neg Reg prescribed specific calendar dates for opening of certain access points based on nesting patterns at the time. This proposal would allow the park some flexibility based on current, observed, monitored conditions, while maintaining protection of piping plovers in accordance with the guidelines in the Piping Plover Recovery Plan. This would allow CCNS to better provide a range of opportunities for visitors to enjoy the park's resources and values in a manner that would maintain protection of those resources and values.

An environmental assessment (EA) analyzes the proposed action and alternatives and their impacts on the environment. This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, regulations of the Council on Environmental Quality (40 CFR 1508.9), and the NPS's Director's Order (DO) -12 (Conservation Planning, Environmental Impact Analysis, and Decision-making)."

2.0 ALTERNATIVES

This EA evaluates the potential impacts of modifying existing access options and opening alternative and temporary access to the ORV corridor. Two alternatives have been analyzed and a third set of access options were considered but rejected.

Alternative 1: No Action Alternative

Alternative 2: Preferred Alternative - ORV management options to modify ORV access.

This chapter provides a general description of these alternatives. The environmental consequences of these alternatives are presented in Chapter Four. The alternatives that were considered but rejected are also described.

2.1 NO ACTION ALTERNATIVE

Under the “No Action” alternative, current ORV management practices would continue. No new or modified ORV access options would be available to management. (See map #2)

2.2 PREFERRED ALTERNATIVE ORV MANAGEMENT OPTIONS TO MODIFY ORV ACCESS

A management option to modify existing designations of scheduled access to three ORV beaches and to open alternative and temporary ORV access north of Herring Cove Beach would be proposed. The modifications would be implemented through a revision to the Superintendent’s Compendium. ORV access accommodations will be revised or added to the designated routes, areas and times available, and upon the conditions set out, may be evaluated for temporary ORV access. These modifications are consistent with the spirit of the 1995 Neg Reg process and the special regulations that followed in 1998. Park management may promulgate a new special regulation later in the year to codify these modifications to the CFR 7.67(a). (See section 6.0) This alternative is preferred because it maximizes opportunities for ORV beach access consistent with the NPS’s primary responsibility to protect natural and cultural resources, particularly in this case, nesting piping plovers. In all cases, as stated in the Neg Reg, openings of access for ORV use is contingent on beach, tidal, nesting, and public safety conditions. This alternative would not guarantee beach access to ORV users. Four access points to accommodate ORV access will be revised or added to the designated routes, areas and times available, and upon the conditions set out, may be evaluated for temporary ORV access of up to half a mile of corridor. In the event of near or total closure (less than 1/2-mile of accessible ORV corridor), management would have the option to implement one or all of these options.

- The park would consider opening access to the High Head north ORV corridor prior to July 21st. In addition, the park would explore opening access to the ORV corridor near High Head and Head of the Meadow prior to July 1st.
- The park would consider temporary daytime access to the ORV corridor south of Coast Guard Beach in Truro until June 30th. This option required and received approval from the town of Truro. ORV’s have always been very visible at the pedestrian access and would remain so if the hours of use include 7:00 a.m. to 6:00 p.m. The current program permits access for fishing from 6:00 p.m. to 7:00 a.m. An existing ORV access road is located 80 feet south of the town owned property. At this southerly point, defined ORV parking is separated from established bathing areas with signs that state “No Vehicles Beyond This Point”.
- As a last resort, the park would consider opening access to up to 0.4 miles of beach for ORV access north of Herring Cove Beach prior to June 30th. The proposed access would be directly off the northern end of the Herring Cove parking area where the Herring Cove north parking lot abuts the beach. The

driving corridor would be established between a point 10 feet seaward of the spring high tide drift line and the berm crest and marked with delineation posts. CCNS would establish a track to an area where ORVs would stop and park. It would be at least 200 yards from the bathing beach.

The park would implement the above changes only as needed to try and maintain a half-mile of accessible ORV corridor. (See map #3, preferred alternative)

2.3 ALTERNATIVES CONSIDERED, BUT REJECTED

- Utilize the inner dune road to Exit 8 – This alternative was rejected for three reasons: it would have entailed considerable impacts to the extensive natural resources in the back dunes, including numerous dune slack wetlands and the Eastern spadefoot toad, which is listed as threatened under the Massachusetts Endangered Species Act; the increase in traffic would have compromised the desired visitor experience provided by the dune shacks in this area; and, the route to the beach is long with many hills and turns making it unsafe for large numbers of vehicles.
- Reopen old routes from the Pole Line Road to the beach – This alternative would have resulted in substantial damage to the vegetation, dunes, and other natural resources that have recovered since cessation of ORV traffic along these tracks. Additionally, these crossovers lead to areas of high piping plover nesting activity, and therefore were unlikely to be usable during much of the nesting season.
- Open Herring Cove South to ORVs – Access to this area would have entailed routing traffic over a recovering overwash. This would have impeded recovery of the foredune. Similarly, this would have put traffic adjacent to an older, more recovered overwash, potentially slowing its continued recovery. Additionally, the southwestern sections of this beach (Wood End and Long Point) are used by nesting plovers.

2.4 ENVIRONMENTALLY PREFERRED ALTERNATIVE

In accordance with the NPS DO-12, the NPS is required to identify the “environmentally preferred alternative” in all environmental documents, including EAs. The environmentally preferred alternative is determined by applying the criteria suggested in NEPA, which is guided by the Council on Environmental Quality (CEQ). The CEQ provides direction that the environmentally preferable alternative is the alternative that will promote the national environmental policy as expressed in Section 101 of NEPA. Generally, the criteria mean the environmentally-preferable alternative is the alternative that causes the least damage to the biological and physical environment and that best protects, preserves, and enhances historic, cultural, and natural resources (Federal Register, 1981).

As considered in this EA, the no action alternative would be the environmentally-preferred alternative if only natural resources were considered. However NEPA looks at the broader human environment, including public use and socioeconomic concerns. After review of potential resource, socioeconomic and public use impacts and mitigations, the Preferred Alternative of management options to modify ORV access, would better balance long-term preservation of resources, visitor experience, and socioeconomic concerns. Therefore, this is the environmentally preferred alternative.

3.0 AFFECTED ENVIRONMENT

This chapter presents the relevant baseline resource components of the existing environment. The environmental resources that would be affected by the alternatives considered in this EA are described, including natural resources, cultural resources, public use, the surrounding community, and national seashore management and operations. This chapter does not present the effects of these alternatives; these effects are described in Chapter 4.

3.1 NATURAL RESOURCES

Geology, Soils and Water Resources

Cape Cod, which extends approximately 25 miles eastward and 30 miles northward into the Atlantic Ocean from the mainland, is a relatively recent addition to the landmass of Massachusetts. The material comprising the Cape was deposited by glacial ice which began to retreat about 18,000 years ago, finally leaving the area about 12,000 years ago. The original deposits have since been shaped by tides, winds, waves and currents into the topography that Cape Cod displays today. The outline of the Cape has changed significantly in the past several hundred years. Because the Cape is composed of unconsolidated sediments (primarily sand and gravel) that erode easily, the rate of change has been extremely rapid. The rate of erosion and land sculpting is so high that, geologically speaking, Cape Cod and the associated islands are temporary features, with a life expectancy measured in thousands, not millions, of years.

Most of the sand and gravel eroded from the original glacial deposits is reworked and redeposited to form beaches, offshore bars, and other depositional land forms seen on the Cape today. The shape and appearance of these deposits at any given time is in momentary response to the constantly-varying forces of wind and water acting on them. If the energy and force of the waves were constant in magnitude and direction, then the beaches of the Cape would reach a state of dynamic equilibrium and change would be easily predicted. These forces are not constant, however, and the beaches and other depositional forms are always in a state of flux. Coastal processes such as littoral drift, or the predominant direction of sand moved along the coast by wind, currents, and storms, causes both erosion of beaches and accretion in other locations such as at Long Point in Provincetown which accretes sand eroded from the outer beach to the east and south.

In spite of the ever-changing wave conditions, certain well-defined beach features can be identified on Outer Cape beaches. The size and placement of the foreshore and berm will vary depending on the energy of the waves striking the beach. There may be two berms developed during the year, a summer berm and a higher winter berm situated more landward. The summer, with its generally quieter wave conditions, is usually a time of accretion. The short, steep, choppy waves of winter will destroy the accreted summer berm, causing the beachfront to move inland where a winter berm will be constructed. The crest of the berm (winter or summer), which changes between seasons and often within seasons due to storms, etc., determines the seaward limit of the ORV corridor. The more inland dunes and scarps define the landward limit. The "winter berm" is often the scarp or edge of the beach on the inland side due to narrower beaches in winter months.

As described above, the shoreline configuration determines the access routes and available corridor for off-road vehicles in the 8.5 mile public-use area from Race Point to Long Nook.

CCNS has a wide variety of marine and fresh water resources formed by the geological events that created the landmass of Cape Cod. These diverse water resources are often interrelated, and each is an integral part of the ecology, history, and beauty of Cape Cod.

CCNS often groups the variety of habitats present into four basic ecosystem types: beaches, barrier islands, spits, and dunes; ponds and freshwater wetlands; coastal uplands; and estuaries and salt marshes. The High Head access route traverses a number of wetlands and it runs atop what appears to be fill. Hatches Harbor is a major estuarine area, and the Pole Line Road also passes within 10 meters of small wetlands.

The soils of Cape Cod have been classified as excessively drained outwash and are derived from glacial outwashes and moraines. They vary in composition and include glacial till, sand, gravel, interspersed layers of clay and silt, and scattered large boulders. In several areas of the Cape, dune deposits overlie the glacial soils. Many of these dunes are formed from beach material that was transported inland by winds.

Dunes

The dune zone consists of two basic parts: newly formed foredunes and more mature backdunes. Dunes catch and store sand blown from the beach and are dependent upon vegetation for stability and development. They are the natural barriers for backdune habitats against severe storm flooding. Dune vegetation can be divided into either grassland or woody communities, the latter being characteristic of more stable dunes. The backdunes that occur westward from Head of the Meadow, collectively known as the Province Lands, contain over 300 known dune slacks, temporary wetlands that support numerous species of plants and wildlife (Smith and Hanley 2005).

Off road vehicles have substantial effects on dune vegetation, which can lead to degradation of the dune system. Maximum damage to vegetation results during the first few passes of a vehicle. Given protection, however, the vegetation on dunes will recover,

but at varying rates, depending on species and environmental conditions. In order to minimize damage to dunes, the only areas open to ORV driving are the access routes across the primary dune to the outer beach.

Wrackline

The sand beach is an important site for development of new sand dunes, and a habitat for many animals ranging in size from interstitial microscopic species, to macroscopic wildlife such as piping plovers, terns, and other shorebirds. The most sensitive zone of the high beach is the wrackline, the long line at the hightide mark of deposited vegetation, shells and other detritus from the sea and beach. This is a source of abundant invertebrate prey for migrant shorebirds. Repeated shorebird disturbance by vehicles or pedestrians can dramatically affect the long term use of areas as staging or resting areas for these birds. This wrack is also a significant site for new dune development on open sand. Regeneration of American beachgrass (*Ammophila breviligulata*) on a bare sand beach is almost exclusively by growth of plant fragments washed from eroding dunes and redeposited on the beach as drift. Once the plants are established, embryonic dunes can develop, provided they are not destroyed by storms or use impacts.

Piping plovers

Piping plovers nest above the high tide line on coastal beaches, at the ends of sand spits and on barrier islands. Nests may be placed on the berm, gently sloping foredunes, blowout areas behind primary dunes, and washover areas. They may also nest on areas where suitable dredge material has been deposited. Nest sites are shallow, scraped depressions made from fine-grained sand or mixtures of sand and pebbles, shells, or cobble. Nests may be found in areas with little or no vegetation although, often, piping plovers will nest under stands of American beachgrass or other vegetation. Plovers arrive on Cape Cod beaches in mid-March and begin establishing nesting territories. Courtship, mate selection, and nest site selection occur and eggs may be present on the beach as early as mid April in Massachusetts. Piping plovers generally fledge only a single brood per season, but may re-nest several times if previous nests are lost or if a brood is lost within several days of hatching. One female plover on Cape Cod was observed in five nesting attempts laying a total of 19 eggs in a season. Re-nests often occur on the same site, but movements between sites have also been recorded.

Clutch size for an initial nest attempt is usually four eggs, one laid every other day. Plover nests and eggs are very difficult to detect, especially during the six to seven day egg-laying phase when the plovers generally do not incubate. Full-time incubation usually begins with the completion of the clutch, averages 27-30 days, and is shared equally by both sexes. Cryptic coloration is the primary defense mechanism for plovers; nests, adults, and chicks all blend with their surroundings. Chicks sometimes respond to vehicles and/or pedestrians by crouching and remaining motionless, sometimes in a nearby depression (e.g., a tire track or footprint).

Feeding areas include intertidal portions of ocean beaches, washover areas, mudflats, sandflats, wracklines, berm, and shorelines of coastal ponds, lagoons, or salt marshes. Feeding by both adults and chicks may occur during all hours of the day and night and at all stages in the tidal cycle. The wide, flat, sparsely vegetated barrier beaches preferred by the piping plover are a dynamic habitat, dependent on natural forces for renewal and susceptible to degradation by development, recreation, and shoreline stabilization efforts.

Other birds

In addition to piping plovers, which presently receive special protection measures under the Federal Endangered Species Act, the outer beach is habitat for other waterbirds and shorebirds. Use of this habitat may be for nesting, resting, or feeding, either in the nesting season or during migration. The roseate tern (*Sterna dougallii*), listed as a federally endangered species in 1999, nests in very small numbers on Nauset New Island, private land south of Coast Guard Beach in Eastham. However post breeding roseate terns from elsewhere in Massachusetts utilize barrier spit habitats at CCNS for staging, where they rest and feed in shallow waters prior to their southward migration. This occurs primarily in August and September. Spit habitat at the entrance to Hatches Harbor in Provincetown is one of the most used by staging roseate terns on Cape Cod.

Additionally, the least tern (*Sterna albifrons*), the common tern (*Sterna hirundo*), and the Arctic tern (*Sterna paradisaea*) are listed as species of special concern in Massachusetts. The Arctic tern has historically nested on Seashore beaches, but is now disappearing from Massachusetts, which is the southern limit of its range. Least and Arctic terns typically nest along sandy beaches in a zone extending from the drift line back to the sparsely vegetated foredune. This area is used by beachgoers for a variety of recreational activities. The eggs and chicks are extremely cryptic, so that despite repeated attacks by adult birds, visitors to the beach often do not realize that they are infringing upon nesting areas. Common and roseate terns generally nest in more dense vegetation.

Large colonies of least terns are sometimes located adjacent to Nauset Inlet in Eastham and Orleans. Scattered smaller colonies are sometimes observed from Coast Guard Beach in Eastham to Long Point in Provincetown. In 1975, a study was initiated to determine the effects of ORV use on the least tern population within CCNS. This study demonstrated that posting of tern colonies reduced the ORV threat to nests, as fewer nests were lost to vehicles in posted areas during the study period. Frequent vehicle traffic and disturbance by beach-walkers did not appear to result in either nest abandonment or reduced hatching of eggs. However, vehicle-induced chick mortality has been observed when tern chicks move outside of posted areas (Godfrey et al. 1975). The NPS objective is to protect tern colonies from adverse effects of public use and activities.

Migrant shorebirds, particularly sanderlings (*Calidris alba*), use the oceanside beaches of Cape Cod for feeding and resting prior to moving southward in the fall. On backshore habitats associated with barrier spits and extensive tidal flats, a much greater diversity of shorebirds, water fowl and herons occur. Twenty two species of water birds were

recorded feeding and roosting at the Hatches Harbor spits during parkwide water bird surveys during August through October (Hadden 2001).

Backdune habitats in the Province Lands provide habitat for many species of terrestrial birds, including a number listed by the Massachusetts Natural Heritage and Endangered Species Program. The northern harrier (MA Threatened) makes extensive use of the dunes and salt marshes found throughout this area for foraging, and in 2004 and 2005, there were a total of four nests at Hatches Harbor. Nests were in the upper salt marsh adjacent to the backdune habitats there (Bowen 2005, in revision). The MA Threatened vesper sparrow (MA threatened) also utilizes backdune habitats for nesting and in migration. A significant portion (25%) of the entire Massachusetts population of this species nested at CCNS in the 1990s, with the Marconi heathlands and the Province Lands backdunes being the two most important areas here. Although vesper sparrows may nest throughout the Province Lands, the two areas where most nesting has been recorded over the years has been the backdunes habitats extending from the Provincetown Airport northward to the Pole Line road and the backdunes extending westward from Race Point road (Jones and Vickery 1993, Kearney and Cook 2001, Massachusetts Audubon Society unpublished data).

Amphibians and reptiles

A number of species of amphibians and reptiles are found in the backdune habitats of the Province Lands, including spring peeper, Fowler's toad, Eastern spadefoot toad (MA Threatened), redbacked salamander, black racer, Eastern hog-nosed snake, Eastern box turtle (MA Special Concern), spotted turtle, painted turtle, and snapping turtle (Cook et al. 2006, Cook et al. in revision). Many of these are widespread habitat generalists that are most abundant in other habitats at CCNS, but for some, the backdune habitats of the Province Lands are where they achieve their greatest abundance. Most prominently, the Eastern spadefoot toad is a specialist of dry, sandy habitat that breeds in shallow temporary wetlands. The Province Lands, with its abundance of dune slack wetlands, provides an ideal landscape for spadefoots, and supports the most significant known population of spadefoot toads in the Northeast United States (Cook 2005). Spadefoots breed in dune slack wetlands in April, May, and June, and actively forage and burrow throughout the backdune habitats at night through autumn (B. Timm pers comm.). Fowler's toad is also a sandy landscape specialist that is very abundant in the Province Lands backdunes, breeding in wetlands and foraging and burrowing in the uplands (Tupper 2006, pers. Comm.). The Eastern hognose snake is a burrowing species that feeds primarily on toads. At CCNS, it is most frequently encountered in the Province Lands, where toads are most abundant (CCNS files). The black racer is also most frequently encountered in open habitats such as those found in the Province Lands.

Vegetation

Immediately adjacent to the Atlantic Ocean, vegetation is dominated by American beachgrass. Presently, no federally-listed rare plants have been identified on the seashore, but the CCNS-wide distribution of 34 state-listed rare, threatened or endangered species

is documented. Of these, the outer beach is an available habitat to three rare plant species. They include sea lyme grass (*Elymus mollis*), seabeach knotweed (*Polygonum glaucum*), and oysterleaf (*Mertensia maritima*). Sea lyme grass has been historically located on the foredune, usually among beachgrass. Seabeach knotweed has also been historically found on the beaches of Cape Cod. Sea lyme grass and seabeach knotweed historically occurred near Race Point.

Mammals

Mammals found in the beach, dune, and backdune habitats of Provincetown and Truro coastal area are a product of the habitats present. Because this landscape is a mosaic of dune slack wetlands, stands of pitch pine and shrubs, native grasses, and open sand, it is used by many species of both marine and terrestrial mammals. These include coyote, raccoon, red fox, striped skunk, long-tailed weasel, Eastern cottontail rabbit, and white-tailed deer, all medium to large species that range widely across the patchy landscape (O'Connell et al. 2006). In addition, based on a parkwide inventory that included similar habitats (Cook et al. 2006) smaller mammals such as meadow voles, white-footed mice, masked shrew, and meadow jumping mice would also be expected to occur.

Harbor seals (*Phoca vitulina concolor*) haul out on Seashore beaches at low tide. On Cape Cod, substantial concentrations occur at Nauset Inlet, Jeremy Point, and South Beach. A few other species, such as the gray seal (*Halichoerus grypus*), are commonly found in these areas as well. Seals are protected under the Marine Mammal Protection Act. There has been no study to determine the effects of ORVs on seal haul-out sites.

Air Quality

CCNS has been designated a Class II area under the Clean Air Act. The state may permit a moderate amount of air pollution as long as neither national ambient air quality standards nor the maximum allowed increase over established baseline concentrations is exceeded. The major air pollutants originating in the seashore are vehicle emissions (primarily hydrocarbons, carbon monoxide, and nitrogen oxide), most of which are generated during periods of high visitation (NPS, 1999).

Ozone monitoring has been conducted annually on Cape Cod since 1997 in cooperation with the Massachusetts DEP and the Environmental Protection Agency. The national ambient air quality standard for maximum hourly concentrations of ozone is 0.12 parts per million. At the seashore monitoring station, this level is exceeded more often than at any other Massachusetts site (NPS, 1999).

3.2 SURROUNDING COMMUNITY

Adjacent Lands

The lands adjacent to the existing ORV corridor, access points, and Herring Cove Beach are in Truro and Provincetown. The areas are park lands and town managed lands (Coast Guard Beach in Truro). 67% of Truro and 77% of Provincetown land area is in CCNS.

In opening these routes, the Seashore will not diminish the value or enjoyment of any private properties, as there are no private homes located within or directly adjacent to these ORV access corridors.

Socioeconomic Environment

CCNS is within Barnstable County and includes large areas of six communities on the Outer Cape: Chatham, Orleans, Eastham, Wellfleet, Truro and Provincetown, all in Barnstable County, whose jurisdiction covers all of Cape Cod. U.S. census data indicate that the 2004 year-round population of Barnstable County was 226,514. The summer population was estimated to be triple the county's total year-round population. The projected year-round population for Provincetown was 3,472 in the year 2003 (US Census). The summertime population is at times in excess of 30,000.

The 2000 census placed the total year-round population of the Outer Cape at 27,454, roughly 12% of the total county population. Between 1990 and 2000 the Outer Cape's population grew by 9%. About 27% of the year-round Outer Cape population is over 65 years in age. In each of the Outer Cape communities there is a small but growing minority population. Provincetown has the largest minority community, 12% of the town's population. Overall, the Outer Cape population is 98% white (Cape Cod Commission, 1998).

While the Outer Cape economy primarily depends on the seasonal vacation industry, entertainment, the arts, and the local fishing industry also make small but significant contributions (Cape Cod Commission, 2005). The tourism-based economy results in lower wages and higher seasonal unemployment.

In Barnstable County, Provincetown ranks 15th in median income at \$32,716. Truro ranked 9th in median income at \$42,981. Seasonal unemployment rates on the Outer Cape tend to vary radically from the peak summer season to the winter. Unemployment rates for 2006 were lowest in all six communities between June and October, which ranged from 3% to 8%. Winter (December through March) unemployment rates increased considerably, ranging from a low of 6.3% (Chatham) to a high of 32% (Provincetown). Provincetown, Wellfleet and Truro experience the highest average unemployment rates (Massachusetts Department of Workforce Development, 2006).

The Race Point Light Keeper's House is at the end of the Pole Line Road. Transportation to the Lighthouse is by ORV. Guests are required to supply their own drinking water, food and beverages. It is operated from Memorial Day through Columbus Day.

Art's Dune Tours is the only commercial ORV operation that currently has a permit to operate within CCNS. Presently, Art's Dune Tours brings visitors onto the beach in

ORVs from the former Dune's Parking Lot on existing sand roads, along the inner dunes route to Exit 8, and then along the Race Point south beach. Art's Dune Tours operation is occasionally restricted during closure periods.

Off-road vehicle use at Cape Cod requires additional commercial services supplied by the local economy. People who come to Cape Cod to fish often require overnight accommodations at local hotels, campgrounds or rental properties; they eat in local restaurants; they need bait and tackle to fish; and their vehicles require fuel, repairs, and air. All of these services are provided by local merchants.

3.3 PUBLIC USE

CCNS was estimated to have 4.5 million visits in 2006, including those by residents and repeat visitors. Nearly 31% of these visits occurred during July and August.

CCNS and adjacent towns provide a wide variety of opportunities for visitors and residents to enjoy athletic, sporting, touring, and educational activities. CCNS has two visitor centers, two environmental education centers, trails, picnic areas, historic buildings and numerous beach facilities available to the public.

Most visitors to CCNS come from the Northeast. However, all 50 States, plus the District of Columbia and Canada, were represented in a visitor survey, completed by the University of Vermont in 1994. Although there were 24 (including "other") activities in which visitors participate at CCNS, the primary activities include: 1) viewing scenery, 2) sunbathing, 3) swimming in the ocean, 4) beachcombing, 5) hiking, and 6) driving scenic roads. According to the survey, most visitors are highly supportive of protecting the natural and historic resources of the seashore; most approve of the current balance between public use and resource protection and most feel that natural and historic resources are being well preserved. Additionally, most would support tighter controls on recreation use if necessary for resource protection.

There has been past concern expressed about scenic and aesthetic issues regarding the sight of ORVs and their tracks, and park patrol and monitoring vehicle use on the beach for some beachgoers. It has been stated that people avoided some areas where ORVs were present because their desired beach experience was a natural area without the presence of vehicles. While NPS patrol and monitoring is held to the minimum necessary, it does occur on the beaches as needed. The public use areas for ORV and non-ORV users are spatially separated and well established at this time, and this type of concern is not frequently expressed at present.

Race Point Road serves as the gateway to the Province Lands Visitors Center and the other NPS facilities in the Province Lands. From 2005 to 2006, visits to Provincetown NPS facilities increased 7% to 1,628,926 and over 322,000 visits were recorded at Race Point Beach, which is the only access point for ORV prior to July 1.

Off-Road Vehicle Users

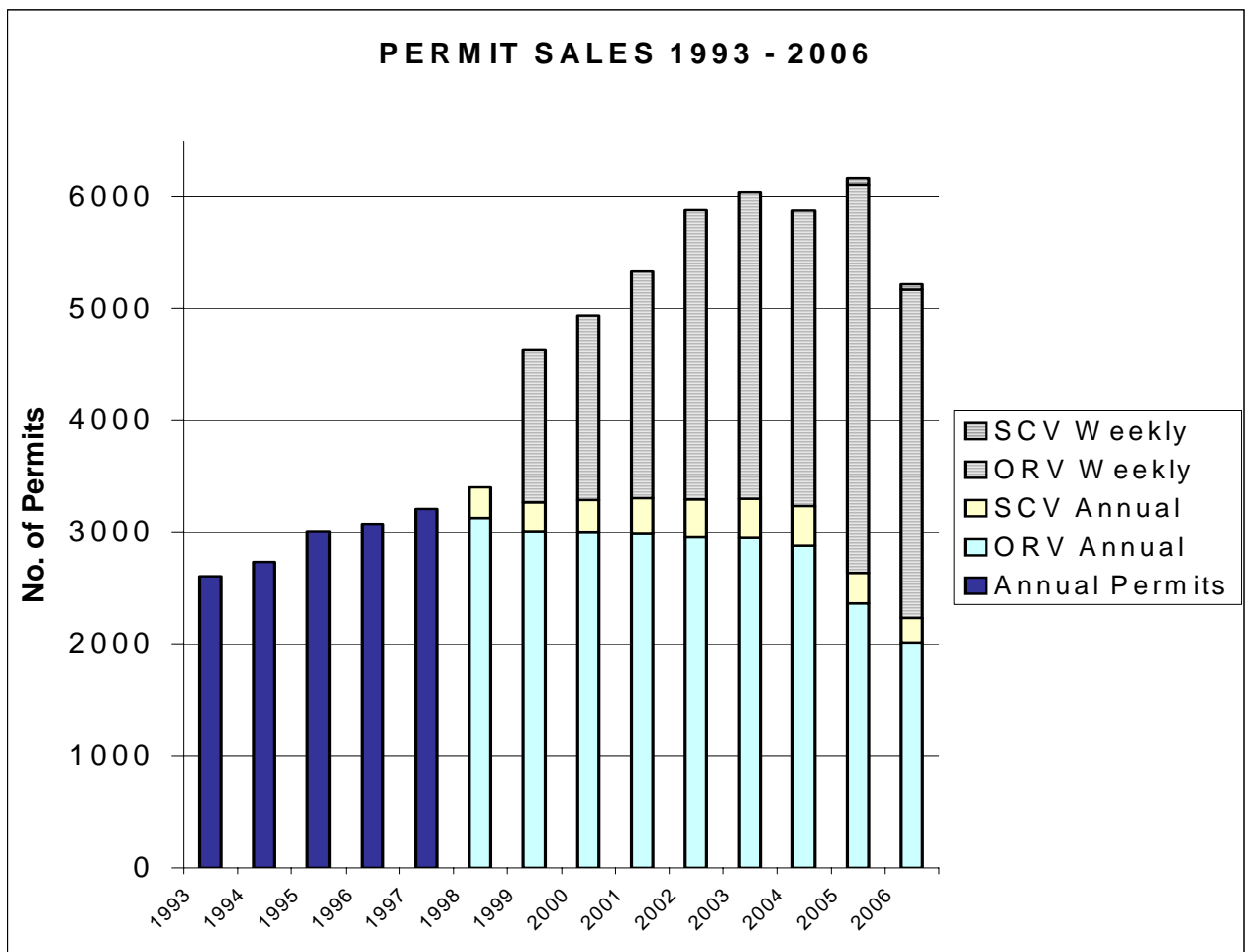
Very little specific information exists on the earliest history of ORV use in the Province Lands and on Cape Cod. However, the first motorized off-road vehicles were probably modified Ford Model T's. Because of soft sand and ease with which these two-wheel-drive vehicles got stuck, motorized vehicles were initially restricted to areas with relatively hard surfaces. Widespread use of ORVs was not possible until after the advent of the Jeep during World War II. Since then, their use has significantly increased. Because there was no management of ORV use until the establishment of CCNS in 1961, the number of ORV trails certainly increased during the postwar years. Since that time, ORV use has become a significant visitor experience, and is, for some, an important reason for visiting CCNS.

The principal ORV user organization, Massachusetts Beach Buggy Association (MBBA), has demonstrated willingness and effectiveness with self monitoring. The MBBA has established a liaison committee which works with the park as a communication link between members of the organization and the park management staff. The MBBA self monitors activity on the ORV corridor because they realize violations of park rules and regulation could jeopardize access privilege and cause the NPS to alter its management plans/options. MBBA is aware that many violations such as excessive speed and resource damage have a negative impact upon their member's safety and enjoyment (as reported to the CCNS staff). On average, 50 citations are issued and numerous written and verbal warnings are given to visitors because of ORV corridor violations each year. Many violations are committed by persons without an ORV permit. Timely communications with the law enforcement ranger staff has created a team approach toward the protection and monitoring of the ORV corridor. Many MBBA members see themselves as resource stewards of the ORV corridor who help educate the public to the ethical and legal use of the ORV corridor and surrounding resources. MBBA helps with erosion control projects and extensive beach clean-ups, which result in the removal of ~1,500 lbs of refuse each year.

ORVs are used for sportfishing, annual and daily gatherings of friends and family, wildlife and scenic viewing, and gaining access to portions of the outer beach that would otherwise be difficult to access.

The corridor is open 24 hours a day. ORV permits sales average 5,500 – 6,500 per year from the ORV permit station at Race Point, including annual and weekly permits. (See following table and graph) For overnight camping, the user must have a self-contained vehicle (SCV, which is a motor home or truck with an attached camper shell, with permanently mounted separate holding tanks for black and gray water storage). These units are able to camp overnight in two designated camping areas near the Race Point beach. Overnight camping is limited to a maximum of 100 vehicles on any given night, subject to variable beach conditions and temporary beach closure

Year	Annual ORV Permits	Annual SCV Permits	Total Annual Permits	7-Day ORV Permits	7-Day SCV Permits	Date that the seasonal cap was reached
2006	2,021	221	2,242	2,936	49	NA (3000)
2005	2,361	280	2,641	3,463	60	NA (3000)
2004	2,881	353	3,234	2,644	N/A	19 April (3200)
2003	2,951	349	3,300	2,739	N/A	26 April (3200)
2002	2,957	335	3,292	2,592	N/A	24 May (3200)
2001	2,990	314	3,304	2,026	N/A	27 June (3200)
2000	3,003	285	3,288	1,649	N/A	8 July (3200)
1999	3,006	259	3,265	1,367	N/A	26 July (3200)
1998	3,125	275	3,400	N/A*	N/A	3 Sept (3400)



Sportfishing

The corridors identified by the Neg Reg were chosen, in large part, to accommodate the sportfishing activity that is a significant part of the Cape Cod experience for some visitors. According to many sportfishing groups, the outer beaches within the ORV corridors are some of the best striped bass and bluefish fishing locations on the east coast. While some surfcast from shore, the option to quickly launch a boat from the beach to access ocean fishing and quickly return to shore while minimizing navigational hazards is a choice frequently made by ORV users.

3.4 PARK MANAGEMENT, OPERATIONS, AND PUBLIC SAFETY

The existing park ORV operation is funded by the income derived from the sale of permits beyond the base CCNS budget and consists of several branches of activity all centered out of the Race Point Ranger Station in Provincetown. The Off-Road facilities include the Permit Station and the Air Compressor Station located at Race Point. The Race Point north and south ORV Access Points are located here as well. Established access points at High Head, Head of the Meadow and Coast Guard beaches in Truro are clearly marked with signs citing current access conditions and restrictions. A competent and professional management plan with sufficient expertise for monitoring and enforcing park rules is supported by ORV user fees.

Management and Operations

The park has developed a staff with significant expertise for monitoring and enforcing park rules. Five law enforcement rangers regularly patrol and monitor the ORV Corridor. Two biological technicians and from one to three biological interns monitor piping plovers and terns, and implement protection measures such as nest exclosures, symbolic fencing and signs to protect habitat, and delineating ORV closures to protect plover chicks. In the past, pre-emptive closures of sections of the ORV corridor were used to provide piping plover protection. The current large and experienced staff now is capable of providing more focused monitoring and protection when and where nesting activities occur.

This professional staff has been funded by the sale of ORV Permits each year. Traditional enforcement of rules and regulations on the corridor has evolved as compliance by ORV users has improved over the years. The focus is more on monitoring public safety, assistance and orientation to new comers to the culture and technical skills needed to navigate the sand roads and beaches. The rangers also spend a considerable amount of their time closely monitoring the ever-changing beach conditions and communicating information to ORV users, especially during the plover nesting period.

Management and administrative activity spans the entire year. Preseason activity includes oversight of reservations processing for self contained vehicles in early January and permit and brochure development and printing in February. Hiring for seasonal employees occurs between January and March. Seasonal fee supervisory and collection staff are on duty from the last Wednesday in March until November 15, seven days a week. Of the 400 weekly permits, 200 are set aside for advanced sales starting March 1; the remainder is sold on a first-come first-served basis. In the postseason, late November into December, staff audit and assess finances, produce annual reports and perform other miscellaneous activities.

Under the current program conditions, \$474,000 was collected to support the existing ORV program. Also, 4.5 FTE (One FTE is equivalent to one full year of work) are used, on average, during that same period. The pricing structure has been adjusted for the 2007 season to absorb the revenue decrease caused by a drop of 340 annual permits sold. Weekly ORV permits will increase from \$40 to \$50 would help to recoup the approximately \$50,000 drop in revenue.

Significant management decisions are required during shorebird nesting season when route closures and openings are determined on a daily basis. There are ORV updates in bulletins, recorded messages, the Park web site, newspapers, etc. There are also meetings with ORV users.

Operations

Preseason activity includes the posting of signs along the route, inventory of park vehicle needs and the subsequent maintenance required, monitoring of shorebird activity, and other /activities. The onset of the season requires additional staff for permit sales and vehicle inspections. Vigilant ranger patrols become a daily activity for five law enforcement rangers for monitoring and enforcing park rules on the ORV corridor, which is open 24 hours per day.

Shorebird monitoring requires the addition of an assigned shorebird law enforcement ranger to assist the natural resource staff. The timely, labor intensive task of exclosing discovered piping plover nests begins and continues for several weeks involving all field staff members. Daily monitoring and many associated duties continue through chick fledging which may extend into September.

NPS laws and policies provide a strong foundation for management that proactively contributes to recovery and long-term conservation of federally listed species. While these laws and policies provide a means for the NPS to take listed species when necessary, at the same time, they establish a clear and unambiguous obligation for parks to avoid impacts to listed species, and to implement NPS programs in a manner that contributes toward their recovery. –Sec 7(a) (1): “the term “take” means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to engage in any such conduct.”

Visitor and recreation management that avoids take is inherent to this overall goal of recovery and long-term conservation. With respect to the federally threatened piping plover, CCNS's management of pedestrians, hang gliders, kite surfers, dogs, ORVs, and other recreational activities on beaches and dunes is designed to avoid take, at a minimum.

CCNS's piping plover management program as a whole includes measures such as education, habitat protection, exclosing nests, and monitoring (in addition to recreation management), designed to contribute to the recovery and long-term conservation of plovers. This "no take" approach to recreation management, particularly when part of an overall recovery-focused management program, is consistent with the NPS mission of providing for enjoyment of the park's resources in a manner that leaves those resources unimpaired for future generations. Further, it is consistent with the NPS management policies that direct us to prevent detrimental impacts to listed species. To engage in take of plovers solely to accommodate recreational use would be inconsistent with the NPS mission and management policies. Similarly, it could be argued that merely avoiding take, in the absence of an active recovery program, would be inadequate to meet our responsibility to proactively contribute to listed species recovery.

After the chicks fledge, all materials associated with shorebird nesting have to be removed from the beaches. Late summer and fall continue to be high season for recreational interests including sportfishing, sightseeing, and driving on the beach for fun.

Public Safety

Ranger patrol activity on the ORV corridor during the open season has a significant public safety component. Inexperienced oversand drivers may require assistance as they get stuck and need a tow. Tidal considerations make this task time sensitive and require considerable ranger presence on the route corridor. Patrols are performed on a regular basis to enforce safe vehicle operations. Unpermitted vehicles have the potential to cause the single most hazardous conditions in terms of public safety. Some visitors are totally unaware of the knowledge, skill, ability and equipment needed to safely operate a vehicle on the sand. Many assistance calls are from drivers of non-equipped, unsuitable vehicles that find their way onto the corridor. Response to these incidents requires resources and labor.

3.5 CULTURAL RESOURCES

CCNS contains 70 historic structures within its boundaries listed on or eligible for the National Register of Historic Places. These historic structures reflect the traditional character of Cape Cod. Lighthouses, dune shacks, a life-saving station, shipwrecks, cultural landscapes like the Dune Shacks of the Peaked Hill Bars Historic District, and archeological resources are all present within CCNS boundaries. These cultural resources do not lie within the existing or proposed ORV routes, with the exception of the

Dune Shacks of the Peaked Hill Bars Historic District, although some resources are adjacent to the route. It should be noted that only the inner dune ORV route, which is a limited access route, directly affects the dune shack district, and that route is not being altered in any way in this proposal.

Two lighthouses which lie close to the ORV routes are the Race Point Lighthouse and the Highland Lighthouse. ORVs must be used to access the dune shacks of the Peaked Hill Bars Historic District. Other historic buildings are those that comprise the former Race Point Coast Guard Station complex, including the main offices, a garage, and the oversand building at Race Point, the Old Harbor Life-saving Station, and the concrete foundation of a life-saving station at Coast Guard Beach in Truro. One shipwreck which lies in the waters just off of Head of the Meadow Beach and is visible at low tide is the shipwreck of the Frances. No significant archeological artifacts have been identified within the area being discussed. Occasional artifacts may emerge from natural coastal erosion. If this occurs, CCNS staff will monitor them to determine if these artifacts lay within vehicle use areas.

Another type of cultural resource within CCNS is the ethnographic resources of the park. Included in this category would be customary activities that have been going on for generations, like beachcombing, surfcasting/shore fishing and walking on the beach. An ethnographic study by the NPS in 2001 (Mueller, Eileen), identified surfcasting as an activity that plays a central role in the respondents' lives. It contributes to their personal identity and gives them a sense of community. In the recent past, some members of the Mashpee Wampanoag have valued the clay found at the base of the cliffs below Highland Light. Therefore, the clay could also be considered an ethnographic resource in CCNS.

4.0 ENVIRONMENTAL CONSEQUENCES

This section describes the environmental consequences associated with the alternatives. It is organized by impact topics, which distill the issues and concerns pertaining to: natural resources; surrounding community; public use and access; park management and operations; and cultural resources. Air quality will not be discussed as an impact topic, because there would be no appreciable change in vehicle use

Definitions. The following definitions were used to evaluate the intensity, duration, and cumulative nature of impacts associated with project alternatives:

Impact Definitions

For this analysis, intensity, or level of the impact is defined as follows:

Negligible – impact to the resource or discipline is barely perceptible and not measurable and confined to a small area.

Minor – impact to the resource or discipline is perceptible and measurable and is localized.

Moderate – impact is clearly detectable and could have appreciable effect on the resource or discipline.

Major – impact would have a substantial, highly noticeable influence on the resource or discipline on a regional scale.

The duration of the impacts in this analysis is defined as follows:

Short term - when impacts occur only during construction or last less than one year; or

Long term - impacts that last longer than one year.

Direct versus indirect impacts

The following definitions of direct and indirect impacts were used in this evaluation:

Direct – an effect that is caused by an action and occurs at the same time and place.

Indirect – an effect that is caused by an action but is later in time or farther removed in distance, but still reasonably foreseeable.

Cumulative Effects

The CEQ regulations, which implement NEPA, require assessment of cumulative impacts in the decision-making process for federal projects. Cumulative impacts are defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions" (40 CFR 1508.7). See Section 5.3 concerning other planning efforts considered.

IMPAIRMENT OF (PARK) RESOURCES OR VALUES

The 2001 NPS Management Policies and other policy guidance require analysis of potential effects to determine if actions would impair (park) resources. Initially, the NPS was established by its Organic Act of 1916 which charged the Service, as the Federal administrative bureau with the authority and responsibility, for promoting and regulating the use of national parks, monuments and reservations, by means and measures, to conserve the scenery, natural and historic objects and wild life therein as being the purpose [in part] for which each park, monument, and reservation [having nationally significant resource values] was authorized. The General Authorities Act of 1970, as amended in 1978, recognized such federal areas administered by the NPS, as being a National Park System comprised of nationally significant resource values, and reaffirmed the conservation of those values to prevent their impairment, as provided for in the Service's Organic Act. NPS managers must always seek ways to avoid or minimize to

the greatest degree practicable adverse impacts on park resources and values. However, the laws do give NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given NPS management discretion to allow certain impacts within parks, that discretion is limited by statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibition of impairment includes impacts that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park resource or value may constitute impairment. However, an impact would more likely constitute impairment to the extent it affects a resource or value whose conservation is

- Necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- Key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- Identified as a goal in the Management's Master Plan or General Management Plan or other relevant NPS planning documents.

4.1 ALTERNATIVE 1 – NO ACTION ALTERNATIVE

4.1.1 IMPACT ON NATURAL RESOURCES

Analysis: The No Action Alternative would be a continuation of current management as described in the Neg Reg. The analysis of impacts to natural resources in the 1997 Environmental Assessment for the Neg Reg is still largely applicable to current conditions and knowledge, with the exception of effects to beach macroinvertebrates as discussed below. The 1997 EA for the Neg Reg is incorporated by reference. Key findings in Section 4.1.1 of the 1997 EA included:

- Piping plovers will be protected by adherence to the protection and management guidelines in the Piping Plover Recovery Plan.
- The wrack line (referred to as the "drift line" in the 1997 EA), dune vegetation, and the foreshore will be protected by the requirement that all ORVs travel in a marked corridor located in the backshore and 10 feet from the spring high tide line, keeping ORVs well away from the foredune or foreshore of the beach.
- While the potential exists for damage to beachgrass (*Ammophila breviligulata*) rhizomes on narrow beaches between High Head and Head of the Meadow, major impacts would be avoided by restricting ORVs to existing disturbed road corridors.

The 1997 EA describes the potential impacts of unregulated ORV use on these resources, and discusses how these measures will reduce or avoid impacts in more detail. The 1997

EA also addresses the potential for effects to other resources such as terns and marine mammals.

In 2000 a study was initiated to assess the effects of ORV traffic on the beach macroinvertebrate community. The study was conducted by Jacqueline Steinback, a PhD candidate at the University of Rhode Island, supervised by Dr. Howard Ginsberg (USGS and URI). Preliminary results were presented at the 2002 CCNS Science Symposium, and in 2004 at a conference on invertebrate conservation held at the American Museum of Natural History in New York (Steinback *et al.* 2004). The CCNS study sites noted in the presentation and poster were Race Point north, Race Point south, and Coast Guard. The fieldwork has been completed and data analyzed but the final report has not been subjected to peer review. Preliminary results indicate when ORV use was a factor, the wrack cover was lower as were the numbers of macroinvertebrates and mobile species that use the entire beach. However, some species of macroinvertebrates were more abundant in these same areas. Hence the primary preliminary finding is that different species respond differently to the presence of ORVs. Study results reported thus far do not provide any insight into the duration of the effects of ORVs on the beach macroinvertebrate community.

Conclusion. Under the no action alternative, impacts to piping plovers, the wrack line, dune vegetation, terns, and marine mammals would remain negligible to minor, as described in detail in the 1997 EA. Preliminary results of a study conducted after the 1997 EA suggest there is a minor impact of unknown duration to the beach macroinvertebrate community.

4.1.2 SURROUNDING COMMUNITY

Analysis. The economy of the outer Cape communities is largely based on the seasonal vacation industry and tourism. One of the major attractions of the region is the scenic beauty of the national seashore and its environs. Residents and visitors to the national seashore are served by the seashore's ability to provide a variety of beach experiences. In those years when near or total closures occur, the inability to provide access to the ORV corridor would adversely affect the range of experiences available to visitors, and reduce the quality of experiences available to fishermen unable to walk to prime fishing location in Provincetown and Truro. If ORV users choose to go elsewhere due to near or total closure, there would likely be adverse impacts on commerce in the towns of Provincetown and possibly Truro.

The park superintendent was contacted by numerous tourist related businesses that reported business losses during the closure period. For example Nelson's Bait and Tackle in Provincetown reported a decrease in sales. There were also many complaints from long-established visiting groups who stated they plan to go elsewhere in future because of uncertainty with the ORV Program. A Provincetown campground reported that it was adversely impacted by the 2006 ORV closure. The business reported cancellations by long-term users, forcing the owner to face financial loss and to possibly consider a property sale. Art's Dune Tours also had short term adverse impacts, such as route

changes, due to closures of the beach corridor. These types of impacts could continue under the no action alternative.

Conclusion. This no action alternative would have short term adverse impacts during closure on commercial services associated with ORV use particularly the campgrounds, bait and tackle shops, and Art's Dune Tours.

4.1.3 IMPACT ON PUBLIC USE AND ACCESS

Analysis: Providing ORV access has a direct bearing on the quality of visitor experience for ORV users. Near total closure of the ORV corridor would cause a disruption in services provided for the public and it could result in a decline in the number of users and diminished user satisfaction. When there is limited or no access on the ORV corridor, Art's Dune Tours has to curtail or shut down tours until enough corridor becomes available. Visitors that would participate in a dune tour would not have this opportunity if the corridor were closed. The inability to provide access to the ORV corridor would adversely affect the range of experiences available to visitors, and would reduce the quality of the experience available to surf fishers and other recreational users unable or unwilling to walk to prime fishing and bathing locations on the beach. Lack of direct boat launching for easy ocean access from the ORV corridor (eliminating the long and sometimes rough boat ride from Provincetown Harbor) for fishing and recreation, could be a deciding factor in a visitor's choice of one recreational spot over another. There are no other ocean boat launching areas from Long Point in Provincetown to Nauset Harbor in Eastham except for open ORV corridor areas.

ORVs do not cross public beach access points along the corridor, which has the effect of separating the uses. The beach users who are not ORV users have become accustomed to the presence of these vehicles within the ORV corridor. There are many beach areas within the seashore that are vehicle-free, particularly in Eastham, Wellfleet, south Truro and the east and south of Herring Cove Beach area in Provincetown; this is a moderate to major beneficial effect while the ORV corridor is open for those users who prefer beaches without the sight of ORVs. There may be remaining minor, temporary adverse effects for the aesthetic or use experience of beachgoers who object to ORV use.

Conclusion. Public access would remain the same by selection of this alternative. This alternative would cause a disruption in services provided for the public if/when total or near total closure occurs and it could result in less public use and diminished user satisfaction. In summary, this option could present a moderate short-term adverse impact to ORV users and Art's Dune Tours in the event of total or near total closure of the ORV corridor. There may be remaining minor temporary adverse effects for the aesthetic or use experience of beachgoers who object to ORV use.

4.1.4 IMPACT ON PARK MANAGEMENT AND OPERATIONS

Analysis. The lack of access to the ORV corridor, in this no action alternative would continue to require ranger and resource personnel to monitor and patrol the ORV corridor

on a daily basis. Resource monitoring of protected species is mandated and would not be impacted. Open and closed corridors would all be monitored and patrolled. A decrease in the number of ORV users would have direct impact on revenue from ORV user fees. During 2006, staff had to divert their attention from planned activities to address numerous complaints. If future closures generate similar levels of attention to the ORV users, there would be an adverse impact on park operations

Conclusion. There would be no impact on staffing levels and program expenses. In the case of near or total closure, there would be a short-term impact to ORV funding for park staff dedicated to managing the ORV corridor. When closures occur, there would likely be an adverse impact to park operations.

4.1.5 IMPACT ON CULTURAL RESOURCES

Analysis. CCNS contains 70 historic structures within its boundaries listed on or eligible for the National Register of Historic Places. These historic structures reflect the traditional character of Cape Cod. Lighthouses, dune shacks, a life saving station, shipwrecks, cultural landscapes, archeological resources and ethnographic resources, such as surf/shore fishing are all present within CCNS boundaries. Although these resources do not lie within the existing or proposed ORV routes, the ORV routes are adjacent to some of them. No new ground disturbance would occur. The inner dune shack ORV route, which runs directly through the Dune Shacks of the Peaked Hill Bars Historic District, is not affected by this alternative.

Conclusion. The no action alternative would have a minor short term impact on surfcasters during a near or total closure.

4.1.6 CUMULATIVE IMPACTS

There are no similar management and access issues being considered for cumulative impacts except access to the Race Point Lighthouse (See Sec 5.3). The cumulative effects with this no action alternative on public use would be minor and adverse. There would be no anticipated cumulative impacts of the no action alternative to natural or cultural resources, or socioeconomic and park management aspects.

4. 2. ALTERNATIVE 2 OPTIONS FOR MANAGING ORV ACCESS (PREFERRED ALTERNATIVE)

4.2.1 IMPACT ON NATURAL RESOURCES

Analysis: The effects of the Preferred Alternative on natural resources are substantially similar to those of the No Action Alternative. Under the Preferred Alternative, the park would continue to adhere to the plover protection and management guidelines in the Piping Plover Recovery Plan, and ORVs would continue to be restricted to the marked corridor that protects the wrack line, dune vegetation, foreshore, and foredune. Impacts

to these resources from implementation of the Preferred Alternative are the same as discussed in Section 4.1.1 and in the 1997 EA.

The 1997 EA noted that other migrant shorebirds might benefit from the absence of ORVs between Exit 8 and High Head, particularly in July. The Preferred alternative could result in vehicles using up to the first half mile of beach north of High Head during the month of July. However, given that the remaining 2.5 miles of beach between Exit 8 and High Head would remain free of ORV use until July 21, impacts to other shorebirds using this area would be negligible.

As discussed for the No Action Alternative, current park management is believed to have minor impacts the beach macroinvertebrate community. Opening Head of the Meadow and High Head access points earlier could lengthen the duration of these effects. However, considering the small spatial extent and likely limited duration of additional ORV access that could occur under the Preferred Alternative, this is likely to be a negligible increase in impacts over current management.

Opening Herring Cove north to ORVs would introduce potential impacts to an area not evaluated in the 1997 EA or the current No Action Alternative. If the Herring Cove north option under the Preferred Alternative were implemented, ORV use would be regulated and confined to a designated corridor as it is in the existing ORV corridor. Similarly, any piping plovers nesting in this area would continue to be protected and managed in accordance with the guidelines in the Piping Plover Recovery Plan. As a result, impacts to plovers, wrack, dune vegetation, the foreshore, and foredune are not anticipated to differ significantly from the No Action Alternative. In absence of any information regarding the intensity or duration of ORV use necessary to produce measurable impacts to the beach macroinvertebrate community, it is difficult to assess whether the likely high intensity but short duration of ORV presence at Herring Cove north would result in measurable impacts to this resource.

Conclusion Under the Preferred Alternative, impacts to piping plovers, the wrack line, dune vegetation, terns, and marine mammals would remain negligible to minor, as discussed in Section 4.1.1, as described in the 1997 EA, and as augmented by the analysis above. Impacts on the beach macroinvertebrate community would be negligibly higher than current management, and as such would be minor.

4.2.2 IMPACT ON SURROUNDING COMMUNITY

Providing the alternate and temporary access points under this alternative would reduce the likelihood of complete daytime closure, and thus would avoid or reduce the diversion of ORV dollars away from local providers of ORV services. This would be a moderate beneficial impact to those businesses whose primary customers are ORV users, and a negligible to minor benefit to those tourist-serving businesses with a diverse customer base.

The Preferred Alternative would not guarantee that near or complete ORV closures would not occur, therefore it is possible that in some years impacts could be the same as those described for the No Action alternative.

Conclusion. This alternative could have moderate beneficial impacts to businesses that cater heavily to ORV users, and could have negligible to minor benefits to other tourist-based businesses.

4.2.3 IMPACT ON PUBLIC USE AND ACCESS

Analysis. Under this alternative the national seashore would continue to meet the commitment to provide for various types of visitor use within the constraints of personnel and funds. To accommodate those visitors who wish to participate in ORV use, the preferred alternative proposes to limit the impacts associated with ORVs and the conflicts perceived by the variety of beach visitors at CCNS by simply adjusting the timing of use of access points, and primarily making adjustments prior to the peak summer season. Potential minor to moderate impacts from user conflicts between ORV users and bathers or people who would prefer to see vehicle-free beaches would be adverse but of minimal duration. There will be some limited conflict between pedestrians and ORV's at Herring Cove north since this location has only seen vehicle use by law enforcement and piping plover monitoring patrols, and at Coast Guard Beach where only evening ORV access and patrols were previously allowed. However, the beach users have been accustomed to seeing ORVs on the beach at Hatches Harbor, and any new aesthetic adverse impacts would be minor and short-term. Further, impacts would be minimized as these two access points would be open only until June 30th, prior to the busiest visitor times.

There are many beach areas within the seashore that are vehicle-free, particularly in Eastham, Wellfleet, south Truro and the east and south of Herring Cove Beach area to Long Point in Provincetown; this is a moderate to major beneficial effect while the ORV corridor is open for those users who prefer beaches without the sight of ORVs. The remaining outer beach areas that would open to ORV use at adjusted times would be areas that are existing accesses, relatively remote, (except for Head of the Meadow) and tend to be beyond the reach of most pedestrians, who would find alternate closed ORV corridors empty of vehicles. In short, the overwhelming majority of Seashore visitors will enjoy approximately 40 miles of beach front, including five developed bathing beaches operated by the national seashore and numerous town-owned beaches, plus all upland areas, with only short-term minor user conflicts. There may be remaining minor, short-term adverse effects for the aesthetic or use experience of beachgoers who object to ORV use.

Conclusion: This preferred alternative would have a beneficial impact on ORV users and minor, short-term adverse effects for the aesthetic or use experience of beachgoers who object to ORV use. The user conflict would be temporary and minor, primarily occurring before the height of beach season begins.

4.2.4 IMPACT ON PARK MANAGEMENT AND OPERATIONS

Analysis: The expertise required for daily monitoring and enforcing park rules would remain, as would the year round demand for staff. The permit fee revenue stream used directly to fund ORV operations would be beneficially impacted if near or total closures can be avoided. There is no anticipation of staff or expense impacts. Impact on conflicts between ORV users and staff would be beneficial as there would be fewer conflicts/complaints with ORV user groups and NPS staff.

Conclusion: The preferred alternative would have no impact on expenses and a beneficial impact on staffing. A beneficial impact on management/user conflicts would be minor and short term.

4.2.5 IMPACT ON CULTURAL RESOURCES

Analysis: CCNS contains 70 historic structures within its boundaries listed on or eligible for the National Register of Historic Places. These historic structures reflect the traditional character of Cape Cod. Lighthouses, dune shacks, a life saving station, shipwrecks, cultural landscape, ethnographic and archeological resources are all present within CCNS boundaries. These cultural resources do not lie within the existing or proposed ORV routes, with the exception of the Dune Shacks of the Peaked Hill Bars Historic District, although some resources are adjacent to the route. It should be noted that only the inner dune ORV route, which is a limited access route, directly affects the dune shack district, and that route is not being affected in this alternative.

Park Archeologist Frederica Dimmick noted that opening the ORV route that is presently used by North District Rangers north from Herring Cove Beach should not disturb any known archeological resources. Recent (2004) work by NEA Archeological Services Group at Herring Cove Beach south and north ends as well as at the present Bath House prior to anticipated Park placement of vaulted toilets recovered no significant archeological materials or features, either PreContact or Historic period, in this area. No survey work was carried out in this area by the 1979-1981 *Cape Cod National Seashore Archeological Survey*, based on the pre-sampling done by the group to ascertain sensitive areas of the Park in which to test. This area was determined to be non-sensitive

Conclusion: Cultural resources would not be adversely affected by the preferred alternative. Ethnographic resources could experience a minor, long term beneficial effect as a result of making customary activities like surf/shore fishing more accessible

4.2.6 CUMULATIVE IMPACTS

There are no other projects that are being considered for cumulative impacts, except for access to Race Point Lighthouse (see Section 5.3). Together there could be a minor to moderate beneficial impact for public use, and no expected cumulative adverse impacts to natural or cultural resources, or socioeconomic and park management and operations.

DETERMINATION OF IMPAIRMENT TO PARK RESOURCE VALUES

No resources and values of the greatest significance to the national seashore will be adversely affected. This project is an alteration to a longstanding activity and park use for ORVs and does not meet any threshold to be viewed as an impairment to the resources and values of the seashore.

5.0 CONSULTATION AND COORDINATION

5.1 SUMMARY OF PUBLIC INVOLVEMENT

Since mid-2006 the park has been engaging members of the public in the scoping of this EA. Many verbal comments, letters and e-mails were received from individuals and organizations. The public was informed of several CCNS public meetings via press release, e-mail and phone calls.

The Cape Cod National Seashore Advisory Commission ORV Sub-committee convened a meeting on Tuesday, December 12, 2006 at CCNS Headquarters. The full CCNS Advisory Commission met and accepted the ORV Sub-committee recommendations in total on December 15, 2006.

There was also a public meeting on ORV access issues on July 18, 2006 at the Province Lands Visitor Center, and on Saturday, December 9, 2006 at the Province Lands Visitor Center.

The public was informed of the development of this EA on January 3, 2007 via a press release.

Public notice regarding the availability of this Environmental Assessment will be distributed to the media and interested parties. There will be a 30-day public comment period to receive public and agency feedback on the plan. Comments can be submitted to:

Superintendent George E. Price, Jr.
Cape Cod National Seashore
99 Marconi Site Road
Wellfleet, MA 02667

There will be a public meeting at Province Lands Visitor Center on Saturday, March 3, 2007 at 10 AM in Provincetown, Mass. to discuss and obtain comments on this EA.

5.2 LIST OF AGENCIES AND ORGANIZATIONS CONSULTED

The following agencies and organizations were consulted during various stages of discussion leading to the development of this EA, or are being sent copies of this EA for review:

U.S. Fish and Wildlife Service
U.S. Coast Guard
Massachusetts Division of Fisheries and Wildlife
Commonwealth of Massachusetts-Natural Heritage and Endangered Species Program

State Historic Preservation Office
Wampanoag Tribe of Gay Head (Aquinnah), Tribal Historic Preservation Office
Mashpee Wampanoag Tribal Council
Mass Department of Environmental Protection
Massachusetts Beach Buggy Association
Massachusetts Audubon Society
Conservation Law Foundation
Massachusetts Coastal Zone Management
Town libraries and town halls
Barnstable League of Sportsman's Club
Cape Cod Salties
Citizens Concerned for Seacoast Management
Sierra Club

5.3 RELATIONSHIP TO OTHER PLANNING EFFORTS

Other NPS activities in the Provincetown and Truro areas of the park include several transportation-related construction activities, such as the Province Lands Bike Trail, potential Herring Cove area road and parking reconfigurations, and Head of the Meadow parking area improvements. The work at Head of the Meadow will occur in Fall 2007, the bike trail work will occur in 2008, and the Herring Cove area work in 2008-9. Due to construction activity limitations on constructing during the peak visitor season and restricted construction timing due to protected species, the timing of these projects and any needed facility closures will not overlap with the relatively short summer season addressed by the ORV EA, therefore the cumulative impacts of those projects will not be included.

Several operation-related planning activities have been recently considered, but their impacts are uncertain at this time. It is not known whether The Towns of Orleans and Chatham will further consider alterations to the operations of the ORV corridor extending from Nauset Beach in Orleans 7.5 miles to New Inlet in Chatham due to plover-related closure of last season, as they have recently decided not to pursue a "taking" of the protected species. Finally, the park is considering undertaking a separate planning process for dune shack use and management in the Peaked Hill Bars National Historic District; a separate NEPA document is expected when funding becomes available for a civic engagement initiative. Cumulative effects with this action, therefore, are not being considered.

The Race Point Light House is owned by the U.S. Coast Guard (USCG) and leased by the New England Lighthouse Foundation (NELF). Access to this USCG property is via the Pole Line Route which crosses land owned and managed by Cape Cod National Seashore. The Pole Line Route is also used to provide beach access to ORVs under certain conditions. The USCG and NELF are developing a plan to provide limited vehicle access to the Race Point Light House during the piping plover nesting season, including times when the Seashore has closed the Pole Line Route to general ORV use in order to protect piping plovers. The USCG will consult with the USFWS and the Massachusetts Natural Heritage and Endangered Species Program to ensure compliance with the Federal and State endangered species acts. The USCG will also seek the Seashore's approval of the plan. This plan will pertain only to NELF's management of the Race Point Light House and will not affect other ORV users. This was considered in the sections on cumulative effects.

6.0 COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS

Code of Federal Regulations (CFR) 4.10

This regulation prohibits ORV use unless a special regulation is enacted that designates an area for ORV use.

CFR 7.67(a)

This special regulation enacted in 1998 permits ORV use at Cape Cod National Seashore on designated roads and areas in Provincetown and Truro.

CCNS Superintendent's Compendium

The purpose of the Superintendent's Compendium is to provide a written document which provides special designations, closures, public use limits, permit requirements and other restrictions imposed under the discretionary authority of the Superintendent. Modifications to CFR 7.67(a) proposed under the preferred alternative will be incorporated into the compendium as an emergency response to the total closure of the ORV Corridor in 2006. These modifications are consistent with the spirit and intent of the Negotiated Rule Making process in 1995 and the special regulation published in 1998. Park management may promulgate a new special regulation later in the year to codify these modifications to CFR 7.67 (a).

Executive Order #11644

This order was issued in 1972 and applies to use of off-road vehicles on public lands. The order establishes policies and procedures for use of ORV's on public lands. This order also requires special regulations be promulgated to protect resource values and establishes zones of use.

Executive Order #11989

This order was issued in 1977 adds a new clause to Executive Order #11644 that states whenever the use of ORV's will cause considerable adverse affects to public lands, the agency head will immediately close such areas to the type of ORV use causing such effects until measures have been implemented to prevent future recurrence.

National Environmental Policy Act of 1969

NEPA requires consideration of the environmental effects of proposed federal actions. NEPA also ensures that environmental information is available to public officials and members of the public before decisions are made and before actions are taken. This Environmental Assessment provides a description of the preferred alternative plus one

other alternative, the no action alternative, and summarizes potential environmental consequences of the alternatives. A 30-day public comment period will be scheduled.

Endangered Species Act

Section 7 of the Endangered Species Act directs all federal agencies to further the purposes of the act, which are to conserve threatened and endangered species and the ecosystems on which they depend. Federal agencies are required to consult with the USFWS to ensure that any action authorized, funded, or carried out by the agency does not jeopardize the continued existence of listed species or critical habitat.

CCNS coordinated with the USFWS throughout the 2006 closure and the subsequent efforts to develop the management alternatives evaluated in this EA. CCNS requested information regarding federally listed or proposed threatened and endangered species from USFWS in a letter dated December 22, 2006. Both the No Action and the Preferred Alternative would continue implementation of the plover protection guidelines in Appendix G of the Atlantic Coast Piping Plover Recovery Plan. These guidelines are designed to avoid adverse effects to piping plovers. As a result, CCNS has determined that implementation of either of the alternatives evaluated in this EA is not likely to adversely affect the threatened piping plover. Preliminary coordination with the USFWS indicates their likely concurrence with CCNS's conclusion. This EA will be submitted to the USFWS with a request for informal consultation and confirmation of their concurrence with the CCNS determination of "not likely to adversely affect."

- The NPS requested information regarding federally listed or proposed threatened and endangered species from the USFWS in a letter dated December 22, 2006. This letter also noted that this EA would be forthcoming. Further consultation is planned during the EA comment period.

Massachusetts Endangered Species Act

CCNS requested information regarding state listed or proposed threatened and endangered species in the project area from the Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries in a letter dated December 22, 2006. This letter is provided in Appendix D.

Both the No Action and the Preferred Alternative would continue implementation of the plover protection guidelines in Appendix G of the Atlantic Coast Piping Plover Recovery Plan. These guidelines are designed to avoid take of piping plovers. As a result, CCNS has determined that implementation of either of the alternatives evaluated in this EA is not likely to result in take of the threatened piping plover. Preliminary coordination with the NHESP indicates their likely concurrence with CCNS's conclusion. This EA will be submitted to the NHESP with a request for informal consultation and confirmation of their concurrence with the CCNS determination of that take is not likely to result from the proposed action.

Executive Orders 11988 (Floodplain Management) and 11990 (Protection of Wetlands)

Executive Orders 11988 and 11990 direct federal agencies to enhance floodplain and wetlands value, to avoid development in floodplains and wetlands whenever possible, and to minimize adverse impacts if development cannot be avoided. None of the alternatives affect a floodplain or wetland areas as defined by the executive orders.

National Historic Preservation Act of 1966, as Amended

Section 106 of the National Historic Preservation Act requires that an assessment be conducted of any project, activity, or program that could change the character or use of properties listed in or eligible for listing in the National Register of Historic Places. This undertaking meets all conditions for a programmatic exclusion from further review outside the NPS, under stipulations IV.A and B of the 1995 “Programmatic Agreement among the NPS, the Advisory Council on Historic Preservation, and the National Conference of State Historic Preservation Officers.” The National Park Service will prepare an assessment of effects in accordance with section 106 that states the alternative management and development actions will have no effect on any property listed on or eligible for listing on the National Register of Historic Places.

Archeological Resources Protection Act of 1979

The Archeological Resources Protection Act (ARPA) requires that archeological resources be identified and that proper permits be obtained prior to excavating any resources. The NPS has not identified any known or potential archeological resources in the project area.

Comprehensive Environmental Response, Compensation and Liability Act

The Comprehensive Environmental Response, Compensation and Liability Act establishes regulations regarding the assessment, remediation, and liability for remediation of hazardous substances that have caused contamination. None of the alternative sites considered in this environmental assessment have been designated as National Priority List sites. There is no known contamination at the site.

Clean Air Act, as amended (42 USC 7401 et seq.)

Cape Cod National Seashore is designated a class II clean air area. Maximum allowable increases of sulfur dioxide, particulate matter and nitrogen dioxides beyond baseline concentrations established for class II areas cannot be exceeded. Class II increments allow modest industrial activities in the vicinity of a park. Section 118 of the Act

requires all federal facilities to comply with existing federal, state and local air pollution control laws and regulations. Cape Cod National Seashore will work with the Massachusetts Department of Environmental Protection to ensure that all activities in the national seashore meet the requirements of the state's air quality implementation plan.

The Clean Air Act establishes regulations regarding disclosure, control, and abatement of air pollutants. There are no air-borne contaminants of concern that will be generated by the project, and therefore the alternatives are compatible with the requirements of the Clean Air Act.

Federal Water Pollution Control Act, as amended, Clean Water Act of 1997, and Water Quality Act of 1987 (33 USC) 1251-1376

The proposed actions will have no effects on water quality. Construction activities would need to comply with the requirements of sections 401 and 404 of the Clean Water Act and other applicable federal, state and local regulations.

Executive Order 12898 (Environmental Justice)

Executive Order 12898, "Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires all federal agencies to identify and address disproportionately high and adverse human health or environmental effects of their programs and policies on minority and low-income populations and communities. None of the alternatives considered in this document would result in substantial changes in the socioeconomic environment of the project area. Job creation would be subject to the Equal Employment Opportunity Act. Minority and low-income populations do not live adjacent to the project site. Consequently, the project is expected to have no discernible direct or indirect adverse impacts to minority or low-income populations.

Americans with Disabilities Act

The Americans with Disabilities Act establishes federal guidelines that define requirements for disabled access to parking facilities, pathways, and buildings. All structures and facilities available for public use need to be upgraded in full compliance with the act as they are rehabilitated. The act does not apply to the implementation of these alternatives.

Coastal Zone Management Act of 1972

The Coastal Zone Management Act requires that federal agencies adhere to state Coastal Zone Management Plans when conducting projects or activities that affect the coastal zone. All of Cape Cod is within the coastal zone; however this plan is not expected to have a change in affect to coastal resources. The NPS sent a copy of this EA to the Cape and Islands coordinator of the Massachusetts Coastal Zone Management program to establish whether a determination of consistency will be required for the proposed alternatives. If no reply is received, consistency will be assumed.

Massachusetts Natural Heritage and Endangered Species Program

CCNS requested information regarding state listed or proposed threatened and endangered species in the project area from the Natural Heritage and Endangered Species Program (NHESP) of the Massachusetts Division of Fisheries in a letter dated December 22, 2006. This letter is provided in Appendix D.

Both the No Action and the Preferred Alternative would continue implementation of the plover protection guidelines in Appendix G of the Atlantic Coast Piping Plover Recovery Plan. These guidelines are designed to avoid take of piping plovers. As a result, CCNS has determined that implementation of either of the alternatives evaluated in this EA is not likely to result in take of the threatened piping plover. Preliminary coordination with the NHESP indicates their likely concurrence with CCNS's conclusion. This EA will be submitted to the NHESP with a request for informal consultation and confirmation of their concurrence with the CCNS determination of that take is not likely to result from the proposed action.

LIST OF PREPARERS AND REVIEWERS

Cape Cod National Seashore

George E. Price, Jr., Superintendent
Mark Adams, GIS Specialist
Bill Burke, Cultural Resource Specialist
Dr. Robert Cook, Wildlife Biologist
Lauren McKean, Management Assistant/Park Planner
Sue Moynihan, Chief of Interpretation and Cultural Resources
Carrie Phillips, Chief of Natural Resources Management
Scottee Nista, Program Assistant
Steve Prokop, Chief Ranger
Craig Thatcher, North District Ranger
Maureen Voke, Consultant

Northeast Region
Dave Clark, Regional NEPA Coordinator
Robin LePore, Coastal Management Specialist

APPENDIX

LIST OF FIGURES

Map 1 Location Map

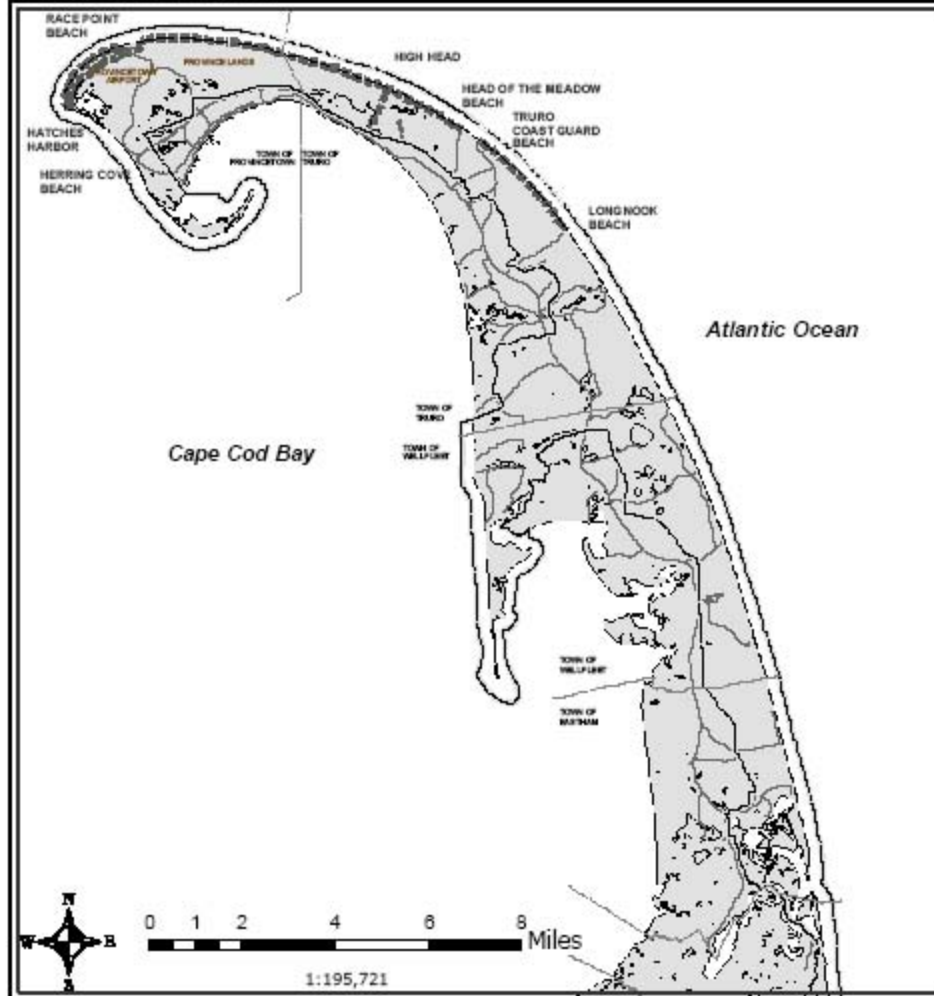
Map 2 Existing Conditions/ No Action Alternative

Map 3 Preferred Alternative

Off Road Vehicle Routes

Map 1: Location

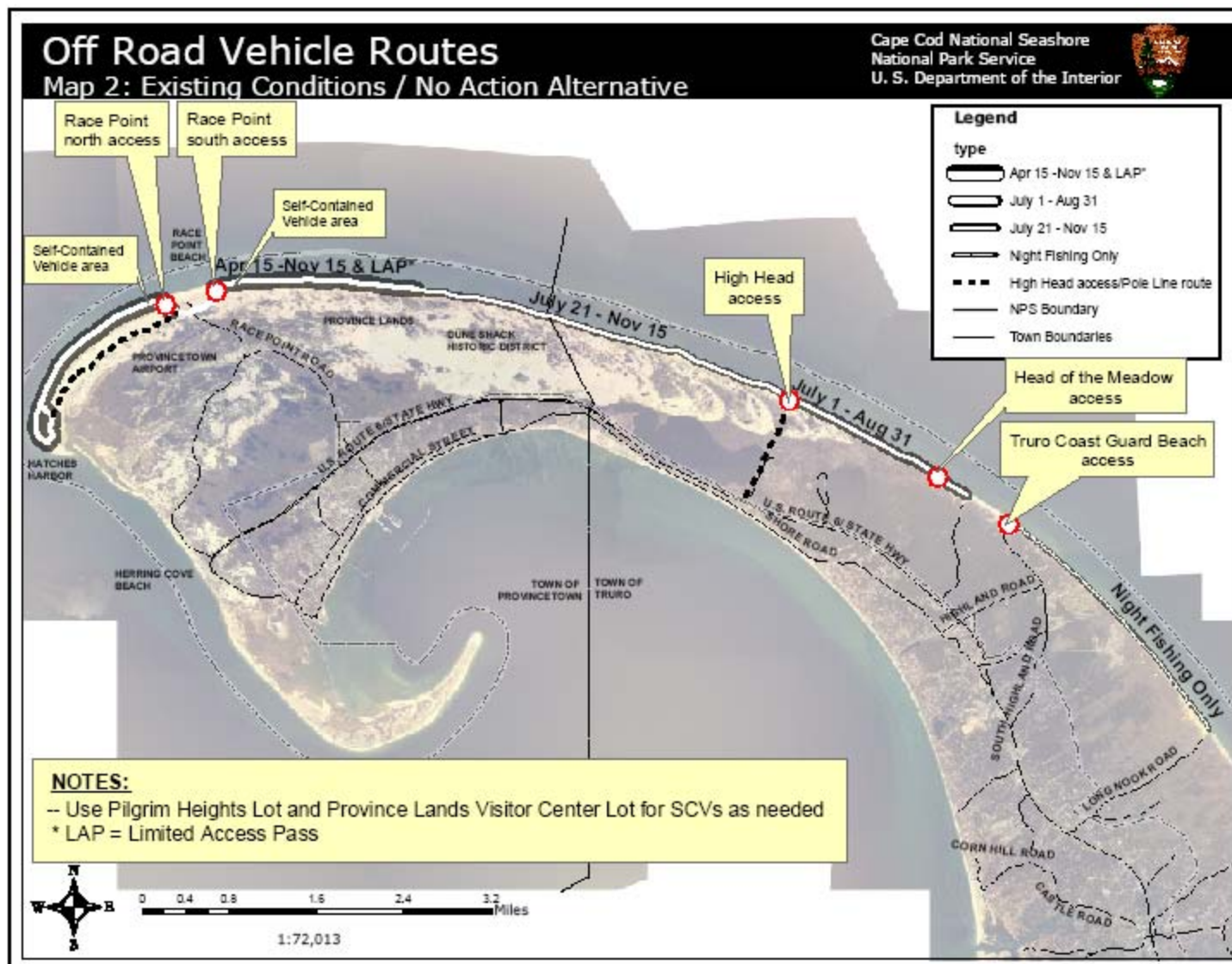
Cape Cod National Seashore
National Park Service
U. S. Department of the Interior

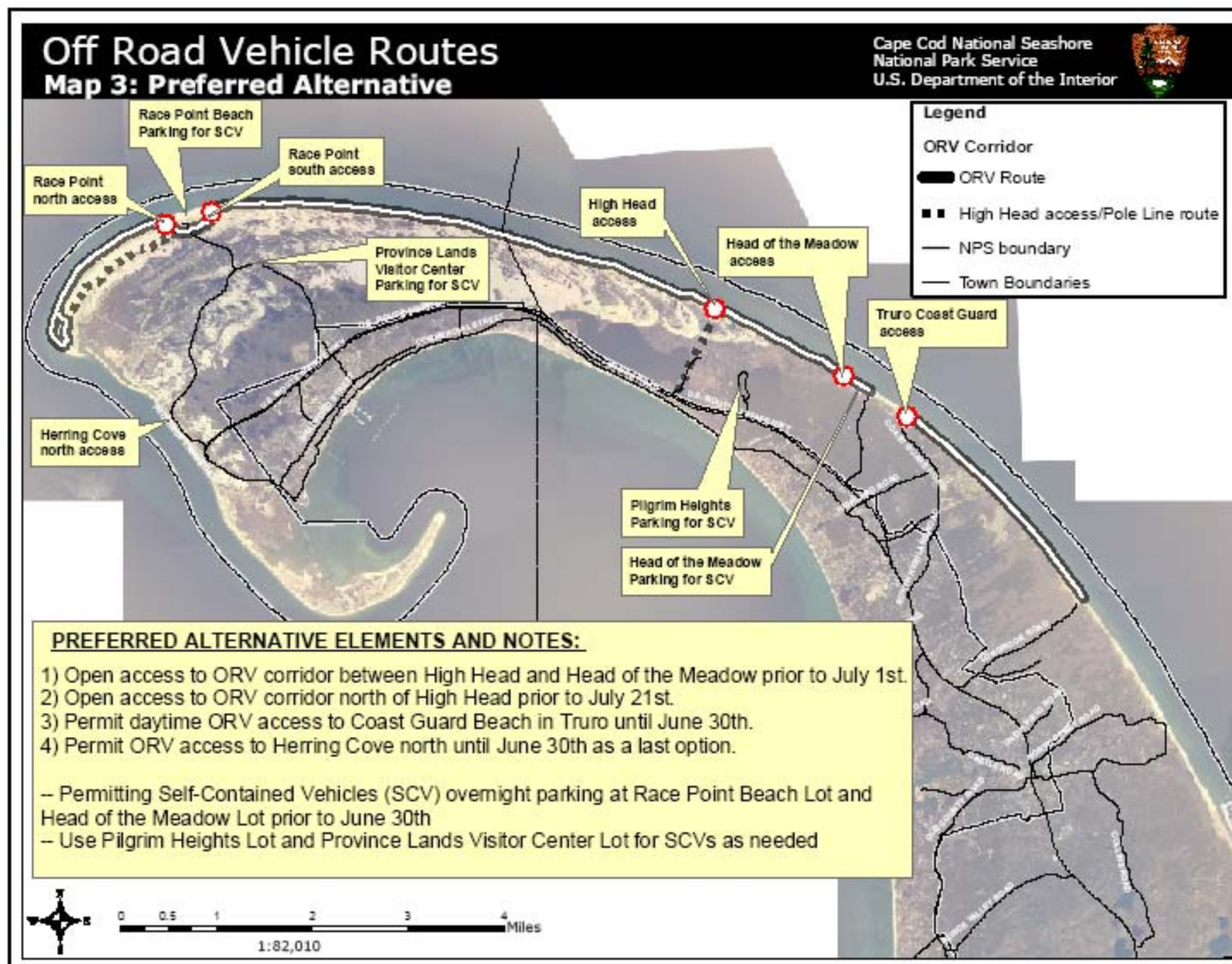


Legend

- ORV Corridor
- NPS Boundary
- Town Boundaries







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