

- The specific areas, which are closed, are designated on a map, which is available for review in the Chief Ranger's Office at CACO Headquarters. This map is included in the "Hunter's Information" brochure which may be obtained upon request from the Chief Ranger's Office, Visitor Centers, and Ranger Stations.
- Upland game as used in 36 CFR 7.67 includes the following species: crow; ruffed grouse (*Bonasa umbellus*); ring-necked pheasant; northern bobwhite; English sparrow; European starling (*Sturnus vulgaris*); cottontail rabbit; snowshoe hare (*Lepus americanus*); opossum; raccoon; red fox; gray fox; coyote; gray squirrel; chipmunk; weasel; striped skunk; woodchuck.
- The disposal/dumping of animal carcasses is prohibited.

National Environmental Policy Act: The NEPA was passed in 1969. Council on Environmental Quality (CEQ) regulations were codified at 40 CFR Section 1500 to 1508 in November of 1978. The DOI published Part 516 of the Departmental Manual to further facilitate NEPA compliance. In January 1981, the Department published Appendix 7 to 516 DM, which contained NEPA procedures specific to the NPS. Later guidance on NEPA compliance within the NPS at that time could also be found in Director's Order 12 (NPS 1982). At the time NEPA was passed into law, hunting had been taking place, as provided for in both law and policy, for the previous eight years of CACO existence.

NEPA applies to "federal actions" that are defined as projects, activities, or programs funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; those requiring a federal permit, license or approval; and those subject to state or local regulation administered pursuant to a delegation or approval by a federal agency. However, activities must be both "major" and have a "significant effect" on the environment to require the preparation of an EIS. Actions that are neither major nor have a significant effect are either evaluated by an EA, followed with a FONSI or are categorically exempt and require no NEPA compliance. During the early 1980s, many people referred to the list of categorical exclusions without creating a memo stating that they had done so. The lack of any file documents would support a conclusion that the CACO managers believed that at the time NEPA became law and the implementation of regulations and guidelines were developed, the pre-existing activity of hunting at CACO met the specific provisions to be categorically excluded. Specifically, the program was not considered to have highly controversial environmental effects or have significant adverse effects on public health and safety. Furthermore, during the 1983-1984 period a programmatic EA was completed regarding the hunting program. The documentation and EA were likely destroyed as part of a routine purging of documents older than 15 years.

The earliest list of categorical exclusions regarding actions related to visitor use is found in 516 Departmental Manual, Appendix 7, dated January 19, 1981 (#2316). These categorical exclusions would have been in effect at the time of the proposed rulemaking resulting in the re-codification of the regulations regarding hunting at CACO in 1983-84. The following are listed as categorical exclusions under Parts D and E:

D (2) Minor non-controversial changes in amounts and types of visitor use for the purpose of ensuring public safety or resource protection in accordance with existing regulations.

D (4) Minor non-controversial changes in programs and regulations pertaining to visitor activities.

E (5) Issuance of individual hunting and/or fishing licenses in accordance with state and federal regulations.

The NPS stated in the 1983 rulemaking that those Parks with discretionary authority wishing to implement a hunting program under a special regulation would need to comply with NEPA and provide

for public comment. CACO staff, through the special regulations rule making process, did comply with NEPA, including providing an opportunity for public comment. It is relevant, however, to provide additional information concerning what federal actions qualify for a categorical exclusion to the NEPA process. Director's Order 12 contains NPS and Department-wide policy with regard to NEPA (NPS 1982). The categorical exclusions for the NPS are found in 516 Departmental Manual 6, Appendix 7, Section 7.1D. *Actions Related to Visitor Use* includes sub-section (4): *Minor non-controversial changes in programs and regulations pertaining to visitor activities*. It is also apparent from information previously cited that the NPS did not feel the rulemaking was controversial in nature. Later revisions of the NPS list of categorical exclusions continued to exempt on-going public use programs, hunting activities conducted in accordance with state and federal regulations, and minor changes to existing programs. 516 Departmental Manual 6, Section 7.4 (2/28/85) lists the following categorical exclusions:

- D (2) Minor changes in amounts or types of public use for purposes of ensuring public safety or resource protection in accordance with existing regulations.
- D (4) Minor changes in programs and regulations pertaining to visitor activities.
- E (5) Issuance of individual hunting and/or fishing licenses in accordance with state and federal regulations.

Therefore, the continued conduct of fall and winter season hunting within CACO has been in compliance with statutes, policies, NEPA compliance requirements, and the agency regulations since CACO was created in 1961 and the first special regulations were issued in 1963.

Two other NEPA documents, the Pheasant Study EA and the EIS for the GMP, have been conducted at CACO that review the hunting program in some fashion. Limited just to the question of evaluating the effects of the pheasant hunting program, a draft EA, final EA, and FONSI (NPS 1996) afforded an opportunity for the public to provide input to CACO on this particular program. The EA was announced to the public in the FR on August 27, 1996, and released for a 30-day public review on August 29, 1996. The EA analyzed potential effects from two alternatives related to the pheasant program: (1) the no-action alternative where the existing hunting program would be allowed to continue; and (2) a two-year assessment and research study to determine the effects of the program on natural resources (the NPS "preferred" alternative). During the comment period, numerous articles and announcements in three local papers were published briefly describing the EA and its proposals. Eight formal responses were received in writing during the comment period, with four supportive of the preferred proposal and four opposed or desiring that the alternative of ending stocking and hunting of pheasant be adopted or further analyzed. The preferred alternative was chosen and a FONSI was signed on October 18, 1996.

Cape Cod National Seashore General Management Plan: Lastly, CACO completed the GMP process in July 1998. During the several years that were spent by CACO staff and others working towards completion of this effort, numerous public meetings, forums, and discussions were held in an attempt to obtain public input and comment on this document. An EIS on the GMP was prepared, as required by NEPA, and a Record of Decision (ROD) was issued in July 1998. The topic of hunting was discussed a great deal during this process. In fact, the Final EIS, published in February 1998, lists no less than 34 separate citations in the index where hunting is discussed, and a total of 7 letters (5 pro and 2 con) were received from individuals, organizations, or State officials. In one response to a writer regarding the hunting program, CACO stated:

“Open hunting areas have remained stable in the seashore for many years, and no changes are planned. Regulating and monitoring hunting activity is an essential part of managing the seashore. Over the past three years, complaints from the public about hunting, complaints from hunters, and tickets and warnings issued to hunters have all dropped significantly. This is an indicator that hunting within the seashore is managed appropriately at this time.”

Waiver of Policy Regarding Pheasant Stocking/Hunting at CACO: The following provides background regarding the NPS policy on exotic species. The pheasant is an “exotic” species, which is defined in NPS-77 Natural Resource Management Guidelines (NPS 1991) as: “A species occurring in a given place as a result of direct or indirect, deliberate, or accidental actions by humans.” The Guidelines go on to clarify: “Those (species) that invade with human intervention are considered to be exotic...In general, the NPS strives to protect and preserve all species of native flora and fauna within all management areas.”

The Guidelines were published to be considered in tandem with the Park Service’s Management Policies that were in effect at that time (NPS 1988). Regarding exotic species, NPS 1988 stated:

“Non native plants and animals will not be introduced into natural zones except in rare cases where they are the nearest living relatives of extirpated native species, where they are improved varieties of native species that cannot survive current environmental conditions, where they may be used to control established exotic species, or when directed by law or legislative intent.”

and,

“In national recreation areas and preserves where the enhancement of fish and game species for hunting and fishing is authorized, preference will be given to enhancing native species. However, where stocking of exotic fish and same species has historically occurred, stocking for the same species may be continued unless it is known to be damaging native resources.”

(Note: CACO was defined for management purposes as a recreation area until 1984.)

A study completed by Bump and Field (1999) on the effects of the pheasant stocking and hunting program at CACO found no evidence that pheasants survive beyond the winter in numbers great enough to establish a breeding population and concluded that native resources are not put at risk by this program.

The NPS published an update to its Management Policies in 2001 (NPS 2001b). Another update to the Management Policies was published in 2006 (NPS 2006a). These policies serve as the basic service-wide policy document of the NPS.

“The Service manages harvest to allow for self-sustaining populations of harvested species and does not engage in the stocking of plants or animals to increase harvest. In some special situations, the Service may stock native or exotic animals for recreational harvesting purposes, but only when such stocking will not unacceptably impact park natural resources or processes and when...the intent for stocking is a treaty right or expressed in statute, other applicable law, or a House or Senate report accompanying a statute.”

Adherence to policy is mandatory unless specifically waived or modified by the Secretary of Interior, the Assistant Secretary, or the Director of the NPS. Furthermore, based on the above cited exotic species policy, a waiver of that policy was needed to continue the pheasant hunting program. CACO Superintendent Maria Burks prepared a memo requesting a waiver of the NPS exotic species management policy on October 7, 2002. The waiver was granted. The memo was based on scientific study and best professional judgment by CACO technical and enforcement staff. Issues addressed in this memo included the ecological issues relating to pheasant releases and potential effects to vegetation from hunters. The waiver request stated that, since it was recognized that the pheasant hunt represented an important traditional practice, CACO would phase the pheasant hunt out slowly, while encouraging management practices that would improve habitat for native upland game species.

1.2.7 CACO's Mission Statement, Management Philosophy, Objectives, and Goals

Mission Statement: The *Strategic Plan for the Cape Cod National Seashore Fiscal Year 2001 - 2005* (NPS 2001b) indicates that the mission statement of the NPS grows from the CACO legislated mandate found in Public Law 87-126 and is a synthesis of the mandated purpose and of CACO's primary significance. It reads:

“The Mission of CACO is to preserve the nationally significant and special natural and cultural features, distinctive patterns of human activity and ambiance that characterizes the Outer Cape, along with the associated scenic, cultural, historic, scientific and recreational values, and to provide opportunities for current and future generations to experience, enjoy and understand these features and values.”

Management Philosophy: As stated in the GMP (NPS 1998a), the management philosophy for CACO is the foundation for management actions and decision making. It identifies the fundamental principles for management and is the result of a thorough examination of CACO's legislation. It also reflects a growing understanding of what is required to manage this complex resource on a scientific basis and to be responsive to the concerns of neighbors, partners, and the public. The philosophy articulates the commitment of the NPS to the principles of sustainability and ecosystem management.

The Management Philosophy for CACO

Cape Cod is a dynamic place where human and natural forces have interwoven to create a distinctive regional character. Cape Cod National Seashore was established to preserve vital elements of the Cape's character, including flora and fauna, physiographic conditions, historic sites and structures, cultural heritage, and other unique natural and cultural features. This character also includes a certain ambiance that is subtler and harder to define, but that provides both a sense of peace and relative isolation. A distinctive pattern of human activity has both shaped, and been shaped by, this special place. Management of the seashore is a delicate balance in which the human needs of today and tomorrow must be addressed within the context of both preservation and tradition.

The legislative record of the national seashore's establishment makes it clear that the preservation of nationally significant resources and these special values was the paramount objective of Congress. However, it is equally clear that Congress envisioned a Park unit that would be actively enjoyed by people. That task becomes particularly challenging when part of what is being preserved and made available to visitors is a relationship between humans and their surroundings that is still important to the daily existence of many Cape Codders.

Better science and access to information can continue to help to bring about a dramatic improvement in our understanding of public use and resource protection issues. On Cape Cod this new understanding must be applied in ways that are sensitive to the history and continuing daily lives and activities of the people here. It must also be applied in ways that help us keep the relationship between people and their environment healthy, so that natural, cultural, and economic systems do not become degraded over time.

Even though the national seashore was established with specific legal boundaries, the special resources that characterize the Outer Cape transcend those boundaries, as well as every other political boundary. The quality of life and the economic needs of nearby communities affect seashore resources, just as the management of resources within the national seashore has significant effects on the towns. For this reason a collaborative approach to stewardship among the six Outer Cape towns and all seashore partners is essential. Cape Cod National Seashore staff and managers assume that cooperation and teamwork begin, not end, at the seashore boundary.

Management Objectives: The GMP (NPS 1998a) contains management objectives that were developed to provide a framework so CACO managers and planners can work toward fulfilling CACO's purpose. The stated objectives are:

- “In concert with local, regional, and state agencies, manage the natural and cultural resources of CACO to sustain the distinctive character of the Outer Cape Cod, a resource held in common among the six towns and the people of the United States.
- Seek to understand, foster, and maintain native biological and physiographic diversity to sustain thriving, dynamic natural communities and systems. Within these standards, protect water resources through a cooperative, balanced approach to water use management.
- Encourage a commitment to the stewardship of the buildings, places, activities, and artifacts of Cape Cod that best exemplify its traditional character, and conserve them to ensure their continuing contribution to the culture of Cape Cod, in collaboration with local communities.
- Allow natural processes to continue unimpeded in natural zones, including the action of wind and water, and neutralize the effects of human intervention where it has adversely affected natural systems, with consideration for public safety.
- Provide opportunities for a diverse range of quality experiences that are based on the resources and values of Cape Cod, with consideration for sustainable practices and traditional uses, and that are consistent with the purposes of CACO.
- Stimulate, and then satisfy, a public desire to understand the natural and cultural resources and the history and sociology of Cape Cod through the primary interpretive themes identified for CACO.
- Respect and cooperate with the residents of the Outer Cape, with an emphasis on collaborative decision making and problem solving to address common Outer Cape issues and to promote a stewardship ethic for CACO.
- Consult with a broad variety of interested parties, or stakeholders, to generate effective public participation and better-informed decisions.”

The Government Performance and Results Act of 1993 requires a slightly different focus for management objectives, aimed at greater measurability of actual results. The NPS and other federal agencies are moving from the current operational mode toward performance management using strategic planning to accomplish the NPS mission. In 2000, CACO developed a Strategic Plan that sets forth planning goals based on the identified NPS service-wide mission goals, including:

- preserving CACO resources;
- providing for the public use and enjoyment and public experience of CACO;
- strengthening and preserving natural and cultural resources and enhance recreational opportunities managed by partners; and
- ensuring organizational effectiveness.

Relevant Management Goals: The GMP lists specific goals and objectives for managing CACO's resources. In regard to wildlife and vegetative resources and the public uses and activities that could affect those resource, the stated goals and the strategies designed to help meet them include:

- *Management Goal:* Manage special uses affecting wildlife populations, such as hunting, to minimize ecosystem impacts and to sustain natural processes.

Strategies - Stocking and reintroduction program: A consistent policy toward stocking programs for hunting and fishing will be developed in cooperation with the MDFW. The use of native species will be encouraged in such programs. Habitat will not be altered merely to support game animals, but may be managed for historical communities.

- *Management Goal:* Manage native natural communities by allowing natural processes to continue unimpeded except where appropriate to selectively manage for native biological diversity or rare, threatened, or endangered species or communities and reduce effects from human disturbance.

Strategies - Vegetation and wildlife database: An assessment will be completed to determine the level of effects to vegetative communities by various user groups. In accordance with CACO's approved *Fire Management Plan*, the natural role of fire will be researched and then restored or simulated in fire-dependent ecosystems and in selected areas using prescribed burning techniques. Because heaths are caused by natural disturbances such as severe storms or fire, or from intense human activity, the locations of heathlands may change over time as existing areas naturally succeed to other communities and new disturbances create heaths in other areas. Vegetation management will include the planting of native species for erosion control, wildlife habitat, and the mitigation of effects from construction projects and public use.

- *Management Goal:* Maintain and allow public activities at CACO that are compatible with CACO's purpose and that enhance the cultural heritage of the region.

Strategies – Public activities: Maintain and allow public activities at CACO that are compatible with CACO's purpose and enhance the cultural heritage of the region. As the needs arise, public activities at CACO will be evaluated in consultation with affected stakeholders to see if they meet the following criteria:

- The use will be compatible with the purposes and management objectives of CACO.
- User conflicts will be minimized.
- The use will not result in resource degradation beyond what is reasonable in the relevant management zone.
- The use will not impair the quality of the desired experience defined for the relevant management zone.
- The scale of use will be in character with Cape Cod.
- The use will not constitute a public health or safety hazard.

Some uses may be restricted to certain areas or to certain times, with the regulation and level of use varying from season to season or from place to place. NPS will continue to develop public use management strategies to minimize resource impacts and use conflicts (NPS 1998a).

Relevant NPS Policies and Guidance Documents: The NPS Management Policies 2006 (NPS 2006a) provides management guidelines for the harvesting of plants and animals by the public and the management of exotic species. Specifically, guidance provides for public harvesting of designated species of animals in Park units when:

“Hunting, trapping subsistence use, or other harvesting is specifically authorized by statute or regulation and not subsequently prohibited by regulation.”

Where harvesting is allowed and subject to NPS control, the NPS will allow harvesting only when the monitoring requirement specified for management of native species and the criteria established for removal of native species have been met (NPS 2006a), and the NPS has determined that the harvesting will not unacceptably impact CACO resources or natural processes, including the natural distributions, densities, age-class distributions, and behavior of:

- harvested species;
- native species that the harvested species use for any purpose; or
- native species that use the harvested species for any purpose.

The NPS will manage harvesting programs, and any associated habitat management programs intended to restore and maintain habitats supporting harvested plant or animal populations, to conform with applicable federal and state regulations and in consultation and cooperation, as appropriate, with the Commonwealth of Massachusetts.

Habitat manipulation for harvested species may include the restoration of a disturbed area to its natural condition so it can become self-perpetuating, but will not include the artificial manipulation of habitat to increase the numbers of a harvested species above its natural range in population levels.

In some situations, the NPS may stock native or exotic animals for recreational harvesting purposes, but only when such stocking will not impair Park natural resources or processes and:

- such stocking is in an NRA or preserve that has historically been stocked (in these situations, stocking only of the same species may be continued); or
- Congressional intent for stocking is expressed in statute or a House or Senate report accompanying a statute.

Management of exotic species can include allowing that species to remain on NPS lands under specific conditions. In general, new exotic species will not be introduced into NPS lands. In rare situations, an exotic species may be introduced or maintained to meet specific, identified management needs when all feasible and prudent measures to minimize the risk of harm have been taken, and it is:

- a closely related race, subspecies, or hybrid of an extirpated native species; or
- an improved variety of a native species in situations in which the natural variety cannot survive current, human-altered conditions; or
- used to control another, already-established exotic species; or
- needed to meet the desired condition of a historic resource, but only where it is prevented from being invasive by such means as cultivating (for plants) or tethering, herding, or pasturing (for animals). In such cases, the exotic species used must be known to be historically significant, to have existed in the CACO during the period of historical significance, or to have been commonly used in the local area at that time; or
- necessary to provide for intensive public use in developed areas, and both of the following conditions exist:
 1. Available native species will not meet CACO management objectives.
 2. The exotic species is managed so it will not spread or become a pest on CACO or adjacent lands.

Exotic Species of Animals: Exotic species of animals may be introduced into recreation areas as part of various management programs for purposes of public recreational use and enjoyment except that no species, particularly those new to the country or region, may be introduced unless there are reasonable assurances from the Bureau of Sport Fisheries and Wildlife and responsible State agencies that the species will not become a pest or disrupt desirable natural plant and animal communities and associations of particular scientific significance.

Control of exotic species will be undertaken only when they are undesirable in terms of public health, recreational uses, and enjoyment, or when their presence threatens significant scientific features or the existence of important native species.

Resource Management Plans: The Resource Management Plan for CACO (NPS 1999) identifies a wide range of information and management needs based on issues and knowledge at the time. This Plan has been used to prioritize resource management activities and to compete for funding for research and

monitoring projects. The Resource Management Plan outlines a number of information needs for the hunting program. Most of these needs focus on obtaining population trend information and hunting effect assessments.

White-tailed deer: Other than evaluating the sex and general age characteristics of the deer harvest obtained through the deer check stations, no monitoring is conducted. Additional information and data about deer and deer hunting within CACO is needed to identify and evaluate changes to the population. Specifically, information addressing the effects of increasing residential development and visitation to the Outer Cape, and further evaluating the role hunting plays in regulating the CACO deer population, is required. The Resource Management Plan proposes to develop a long-term monitoring program, implemented by the MDFW², that would measure deer abundance (population index) and distribution, and to continue to monitor the harvest rates, sex, age, weight, and antler-beam diameter of yearling males, and female reproductive rates, to determine population trends and distribution patterns and whether the deer harvest rate is changing. The Resource Management Plan proposes monitoring that will address specific ecosystem level questions, including:

- What are the effects and impending ecological changes from increasing deer densities?
- Are plant species being eliminated as a result of browsing by deer?
- How will changes in landscape and vegetation influence deer population dynamics?
- Are deer adversely affecting forest-nesting birds?

To answer these questions, a multi-year study is needed to evaluate the ecological effects of hunting at CACO. As a first step, data on harvest levels and hunting effort by species must be acquired. Programs to monitor the population trends of hunted species should be established by the MDFW. The MDFW would collect data on harvest and could analyze that data for correlations with population monitoring data. If data indicate that hunting depresses populations of small game species, ecological studies of native predators would be undertaken to quantify their feeding habits and determine the extent to which hunting competes with these species for prey, and the extent to which the native predators may shift their foraging to other species. The MDFW could begin a monitoring program for those animals that are hunted to determine the levels of harvest that those species experience and to determine the population level or a population index. Based on such studies, future park managers may propose adaptations to ongoing approaches or may have more information to continue a program unchanged.

1.2.8 Decision Making Process

The NEPA process provides an opportunity to make management decisions based on the best available scientific information, common sense, policy and rules and staff, other agency, and public input. NEPA also provides a means to ensure that the environmental costs and benefits of NPS proposed actions are fully and openly evaluated during the decision making process. Two key steps in this process are scoping and public review of a Draft EIS.

Scoping: To inform the public and receive input, and as a NEPA requirement, the NPS embarked on a series of public informational and scoping meetings, each run by NPS staff and the sponsoring organization within a public forum (Table 6). Parties that may be interested in the hunting program were contacted as part of scheduling the meetings. The issues generated through these meetings and from letters received during the scoping process are summarized in Sections 1.4 and 1.5, and the linear path from issues to impact topics is documented. Preliminary alternatives suggested by the NPS were also presented and public responses were incorporated into the impact analysis process.

² The MDFW is charged with managing the hunting program at CACO.

The NPS focused on a number of goals for the public scoping process:

- identify all interested parties;
- receive input in formulating alternatives;
- receive information regarding hunting and its effects;
- identify the diversity of views and concerns among CACO users;
- identify options and alternatives;
- identify informational gathering needs;
- open and extend the lines of communication;
- provide information for the interested parties; and
- establish the NEPA rules and procedures.

After considering public and agency input on potential options for the hunting program, the NPS developed three alternatives for managing hunting at CACO. Scoping input was also used to develop and refine the list of impact topics that would be used to evaluate the environmental impacts, both adverse and beneficial, of implementing each of the three alternatives. The process by which these alternatives were developed and the impact topics identified are discussed in the remainder of Chapter 1 and the first portion of Chapter 2 of this Final EIS.

Review of the Draft Environmental Impact Statement: In April of 2006, the NPS issued a Draft EIS that summarized the information used to analyze the three alternatives, summarized the adverse and beneficial impacts that would result from implementing each of the three alternatives, and identified the NPS preferred alternative. The Draft EIS was available for a 60-day public and agency review and comment period. Copies of the Draft EIS were distributed to interested agencies and organizations, local libraries, and park visitor centers. The Draft EIS was also available on the park's web site. Availability notices were sent to over 2030 individuals who had indicated their interest in hunting at CACO. This included those who provided mail or e-mail addresses at the informational and scoping meetings listed in Table 6 as well as those who had provided addresses at a public meeting held in 2002 regarding the pheasant hunt at CACO. Two public comment meetings were held to receive oral comment on the Draft EIS during the 60-day comment period. Over 200 comments were received. These comments were used to improve the clarity and accuracy of the document, refine impact analyses, and revise the preferred alternative, resulting in this Final EIS. Public involvement, consultation and coordination with other agencies, and the NPS response to comments are described in more detail in Chapter 5 of this Final EIS.

Table 6. Summary of Public Meetings and Documentation

Meeting	Date	Facilitator	Notes		Public Notice
			Flip Chart	Full Notes	
Informational Meetings					
Humane Society U.S. Wildlife Center, West Barnstable	5/5/04	Finley	NA	Yes	No
Nauset Regional Middle School, Orleans	5/11/04	Burks	Yes	Yes & filmed	Yes
Wellfleet Forum, Wellfleet Library, Wellfleet	5/27/04	Paul Connor Wellfleet Forum Chair/Murray	Yes	Yes	Yes
Conservation Commission, Wellfleet Senior Center, Wellfleet	6/16/04	Abby Franklin (Wellfleet ConCom)/Murray	Yes	Yes	Yes
Hunting Groups, Brewster Police Station, Brewster	7/14/04	Finley	NA	Yes	No
Scoping Meetings					
Orleans Town Hall, Orleans	6/30/04	Margaret Fulcher (Orleans Selectman)/Finley	Yes	Minutes & filmed	Yes
Regional Vocational School, Bourne	7/12/04	Lepore	Yes	Yes	Yes
Truro Central School, Truro	7/13/04	Truro Selectman	Yes	Yes	Yes
Eastham Forum, Eastham Police Station, Eastham	7/21/04	Phillips	NA	Yes	No
Provincetown Town Hall, Provincetown	7/22/04	Murray	Yes	Yes	Yes
Eastham Town Hall, Eastham	7/27/04	Murray	No	Yes	Yes
Draft EIS Public Comment Meetings					
Salt Pond Visitor Center, Eastham	6/8/06	Ron Kaufman (CCNS Advisory Committee)	Yes	Yes	Yes
Province Lands Visitor Center, Provincetown	6/10/06	Price	Yes	Yes	Yes

1.3 Public Experience Goals

The NPS has established several goals for public experience, which are consistent with the enabling legislation, NPS policies and management guidelines, the CACO mission statement, GMP, and resource management plans. These goals were also established to help focus the issues and impact topics specifically relating to the hunting program, allowing the NPS the opportunity to assess each alternative relative to meeting these goals or determining areas requiring remedies. The following goals were established for the public experience at CACO:

1. Providing recreational opportunities for a wide diversity of visitors.
2. Maintaining the distinctive cultural and social character and patterns of Outer Cape Cod.
3. Maintaining and managing wildlife populations and natural communities for ecological and recreational opportunities.
4. Providing safe conditions for visitors and staff.
5. Provide opportunities for future generations to enjoy the natural resources, cultural heritage, and recreational values of CACO.

1.4 Primary Issues Related to Hunting

During the spring and summer of 2004, CACO held multiple public scoping meetings that yielded important input on community concerns associated with hunting at the Park. The comments consistently fell into a series of categories that are summarized in Table 7.

Issues relating to wildlife and other natural resources:

- Providing appropriate management of wildlife resources;
- Assessing the effects of hunting on hunted and non-hunted wildlife, including rare or endangered wildlife species;
- Monitoring populations of hunted species and hunting related mortality;
- Maintaining sustainable populations of hunted species;
- Providing opportunities for hunting other species; and
- Maintaining and improving natural communities.

Issues relating to cultural and socioeconomic resources:

- Maintaining and providing opportunities for public uses that are part of the cultural heritage and way-of-life of Outer Cape Cod;
- Continuing the traditions that were in place when CACO was established;
- Providing opportunities and balancing demands for all appropriate public use;
- Providing hunting opportunities for future generations;
- Acknowledging the contributions of hunting to the local economy; and
- Providing enough land area for future hunting opportunities.

Issues relating to visitation and user conflicts:

- Reducing conflicts between the human populations and wildlife;
- Maintaining and improving safety;
- Addressing concerns about hunting violations and hunter ethics;
- Improving visitors' knowledge and awareness of hunting safety;
- Eliminating all hunting;
- Assessing the perception and potential that hunting compromises the safety of visitors and residents; and
- Acknowledging that the Cape Cod region is growing and becoming more densely populated;

Issues relating to NPS policy and administration:

- Providing an assessment on the stocking of non-native pheasants and possible conflicts with NPS policies;
- Resolving concerns that some visitors have over safety during the hunting season;
- Addressing the view that hunting is unethical; and
- Addressing concerns of hunting techniques, hunting equipment, and sportsmanship.

One issue raised during the public meetings was the ethics of hunting, with some individuals stating that they felt hunting was unethical, while others strongly disagreed. In general, approximately 20% of residents and visitors are strongly opposed to hunting, while another 16% are strongly in favor of hunting (Kuentzel, 2006). Attitudes about hunting have shifted somewhat since 1992, with less opposition to hunting in 2006 than expressed in the 1992 survey.

As documented throughout Section 1.2.6, the NPS, CACO, and the Commonwealth of Massachusetts recognize hunting as a legitimate recreational activity at CACO, and Congress determined in 1961 that hunting could be conducted at CACO. The NPS understands that questions about the legitimacy of hunting is central to the concerns of some individuals; however, opinions about this issue vary widely amongst CACO visitors. Aside from environmental and visitor experience concerns, the appropriate role of the NPS and MDFW is to provide laws, rules, and guidelines to make hunting as safe as possible for both hunters and non-hunters, and to balance the many user interests to provide opportunities for all visitors to enjoy the Park's resources.

1.5 Impact Topics

Impact topics were chosen for detailed evaluation based on the CEQ's NEPA regulations and *NPS Director's Order 12: Conservation Planning, Environmental Impact Analysis, and Decision-making* (NPS 2001a) by assessing the issues raised during project planning meetings, public meetings, and by careful considerations of the potentially affected resources at CACO. These issues were then used to establish potential impact topics based on the screening form provided in Director's Order 12 (DO-12) and directly from the discussion provided in DO-12. Issues raised during the public meetings were considered within the context of NEPA compliance and used to formulate the impact topics. Some issues raised are outside of NEPA impact topics, or may otherwise not be consistent with NEPA goals and objectives. The topics analyzed in this Final EIS include:

- Natural Resources: wildlife (game, non-game, rare species), vegetation (plants, rare plants, natural communities);
- Cultural Resources: Cultural Heritage (customary hunting activities, berry picking, mushroom gathering), Cultural Landscapes (NPS 1997);
- Public Use: Land Use And Recreation, Health and Safety, Public Use and Experience, Socioeconomic Values (effects on local/regional economy); and
- Management and Operations: Consistency with CACO and NPS goals, plans, policies, guidelines, mandates, changes to staffing levels, ranger duties, and implementation costs.

Several impact topics considered but dismissed from the detailed Final EIS analysis are outlined in Section 1.6.

Table 7. Summary of Hunting Related Issues and Corresponding Impact Topics

IMPACT TOPIC	ISSUE
Natural Resources	
Wildlife	Providing appropriate management and protection of wildlife resources.
	Assessing the effects of hunting on hunted and non-hunted wildlife, including rare or endangered wildlife species.
	Monitoring populations of hunted species and hunting related mortality.
	Maintaining sustainable populations of hunted species.
	Reducing conflicts between the human populations and wildlife.
	Providing an assessment on the stocking of a non-native species and possible conflicts with NPS policies.
	Providing opportunities for hunting other species.
	Eliminating all hunting.
Vegetation	Crippled wildlife require assistance from local rehabilitation facilities.
Cultural Resources	
Cultural Heritage	Maintaining and providing opportunities for public uses that are part of the cultural heritage and way-of-life of Outer Cape Cod
	Continuing the traditions that were in place when CACO was established
	Providing hunting opportunities for future generations
	Providing enough land area for future hunting opportunities
	Providing opportunities for hunting other species.
Cultural Landscape	Maintaining and improving natural communities.
Public Use	
Land Use and Recreation	Providing opportunities for public use.
	Providing hunting opportunities for future generations.
Health and Safety	Concerns that hunting compromises the safety of visitors and residents.
	Maintaining and improving safety.
	Addressing concerns about hunting violations.
	Improving visitors' knowledge and awareness of hunting safety.
	Resolving concerns that some visitors have over safety during the hunting season.
Public Use and Experience	The Cape Cod region is growing and is becoming densely populated.
	Addressing concerns about potential conflicts between hunters and non-hunters.
	Some individuals avoid using CACO during the fall and winter.
Socioeconomic Values	Improving visitors' knowledge and awareness of hunting safety.
	Hunting contributes to the local economy.
Management and Operations	
Consistency with CACO and NPS goals, plans, policies, guidelines, and mandates	The Cape Cod region is growing and demographics and attitudes have changed over 40-years.
	Resolving possible conflicts with NPS policies regarding the pheasant-stocking program.
Non-NEPA Impact Topics Issues	
	Hunting is inconsistent with NPS rules.
	Addressing the view that hunting is unethical.
	Addressing concerns of hunting techniques, hunting equipment, and sportsmanship.

1.6 Impact Topics Considered, But Dismissed From Further Analysis

The following impact topics were analyzed for potential effects resulting from any of the alternative actions. The relationships of these topics to hunting are summarized as part of the impacts analysis based on a careful review of potential effects that alternatives might have, or the lack thereof. The impact topics are discussed below, but are not carried forward into the detailed analysis in this Final EIS. There will not be any changes to these effect topics resulting from the retention or elimination of the hunting program or any other alternative proposed.

1.6.1 Natural Resources

Air Resources: The Clean Air Act of 1973 (as amended) and associated NPS policies require the NPS to protect air quality in Parks and other holdings. The intent of this effect topic is to assess actions that may improve and protect air quality for human health and ecosystem benefits, or that may have an adverse effect. In general, this topic analyzes far reaching and local influences on air quality, many of which are out of the control of the NPS. For example, CACO is downwind from large urban and industrial areas in states to the south and west, and prevailing winds often carry potential pollutants that are deposited in the northeast. Acid precipitation could be a major influence on ponds and other freshwater habitats at CACO, and could cause excessive nutrient enrichment in estuaries, and affect sensitive vegetation. Conversely, because CACO is removed from the mainland and prevailing local winds come from the ocean, concentrations of air pollutants may not be as high at CACO as on the mainland.

Hunting does not generate any pollution that would adversely affect human health and environmental resources. A negligible amount of exhaust from automobiles and gases generated by the discharge of shotgun shells would be expected. Exhaust from the vehicles of hunters is likely far less than what would be expected from vehicles driven by summer visitors. Hunting does not have an effect, either beneficial or adverse, on air quality and will not be carried forward into the detailed analysis.

Coastal Processes: Coastal processes are the ecological processes affecting the biotic and abiotic elements of the coastal ecosystem. Some wildlife populations are directly and indirectly involved in these ecosystems. For example, coastal waterfowl forage in and use the Cape Cod coastal ecosystems as non-breeding habitat. These species rely on the marine food chain, including small vertebrate and invertebrate prey, for their survival during this period. Conversely, most upland species such as white-tailed deer have very little if any effect on coastal processes, although some individuals forage in salt marshes.

Hunting has only indirect negligible effects on these processes as it may relate to estuarine and marine hunted species. The USFWS and MDFW regulate the legal taking of coastal waterfowl. Lead shot is prohibited for waterfowl hunting. Coastal waterfowl hunting only affects a negligible segment of the coastal communities and any indirect effects are considered negligible. Additionally, hunting does not disturb soil and vegetation, and does not harm natural communities. Therefore, coastal process, as an impact topic, will not be carried forward into the detailed analysis portion of this Final EIS.

Water Resources: Water resources include freshwater, estuarine, and marine aquatic resources such as ponds, lakes, streams, and estuaries. This topic relates to maintaining good water quality, protecting areas from flooding, protecting aquatic ecosystems, and assessing activities that could have beneficial or adverse effects on water resources. One of the primary variables that can affect water resources is extensive development that can create either point source or non-point source pollution. Erosion from earthwork, discharge from septic systems, the creation of impervious surfaces, and discharges from other sources can have adverse effects on water quality and stormwater management. Fill placed in a flood prone area can contribute to flooding, while removal of fill can reduce flooding. The construction and

operation of marinas can create direct pollution into waterways from gasoline and oils spilling from watercraft.

Hunting can generate negligible pollution to coastal and inland water resources where motorized watercraft are used in pursuit of waterfowl. The number of boats and trips is minimal compared to the other recreational and commercial boating activities. Watercraft is not used for hunting within the interior of CACO and as such there would not be any impacts to freshwater communities. The use of lead shot for hunting waterfowl was discontinued. There are no floodplain alteration issues associated with hunting. Hunting does not require any physical alterations to water resources. Therefore, impacts to water resources are not expected from any of the alternatives and water resources are not carried forward into the detailed analysis of this Final EIS.

1.6.2 Cultural Resources

Historic Structures and Architecture: A historic structure is defined as a “constructed work consciously created to serve some human activity that is listed or eligible for listing in the National Register of Historic Places.” This can include ruins, roads, dikes, railbeds, and cellar holes, as well as the more familiar historic homes and lighthouses. Historic structures are an important part of the fabric of life on Outer Cape Cod and contribute to the image of CACO and surrounding areas. These structures include the Penniman House, several lighthouses, the Atwood-Higgins House, the Coast Guard Station, and the Old Harbor Life Saving Station. All receive significant visitation. CACO also has a number of historic sites, such as Fort Hill and the Marconi Station Site, and numerous hiking trails, natural sites, and interpretive sites. Effects on historic structures and sites would generally involve development and significant site-specific construction and rehabilitation. Potential effects from these sources are carefully reviewed when various projects are proposed.



Historic structures at CACO: the Coast Guard Station and the Atwood-Higgins House.

The various hunting related alternatives will not have any effects on historical structures and sites. Hunting is not allowed within 500 feet of any dwelling, whether occupied or not, and all sites of historic or natural significance are closed to hunting. Furthermore, hunting activities do not make use of buildings or structures, with the exception of portable deer stands and duck blinds. Other local closures near the Marconi Station Site include CACO headquarters and maintenance areas, residences, bicycle trails on the western edge of the WMA, the beach parking lots, and the Atlantic Cedar Swamp trail area. Closures in Wellfleet include the 500-foot safety zones around private homes. The hunting alternatives will not affect historic structures and therefore will not be carried into the detailed analysis of this Final EIS.

Archaeological and Ethnographic Resources (Including Submerged Resources): CACO contains numerous archeological resources, both on the land and submerged along the coast. There are hundreds of known prehistoric and historic sites, and perhaps hundreds or even thousands of unknown sites. These resources may extend back in time to the Early Archaic period (9,000 years ago) and may include artifacts related to multiple time periods, up to and including the recent past. Historic period artifacts can be numerous, relating to old homes and farms, roads, cart paths and walled pastures. Many of the sites are visible or just below the surface, such as shell middens or chipped-rock scatters of native peoples, or the shallow cellar holes and trash middens of early European settlers.

Hunting activity does not involve the use, excavation, or removal of archaeological resources, nor does it require construction of earthwork that could affect these resources. There is a remote possibility that

hunters could inadvertently affect archeological resources if artifacts occur on the ground surface and they are trampled. There have been a few cases of sites being disturbed by hunters and other users driving vehicles in remote areas and accelerating erosion in sensitive areas. Even with these few cases, however, effects to these resources will generally be negligible to nonexistent and not necessarily related to hunting activity per se. Therefore, the alternatives analyzed in this Final EIS will not affect archeological or ethnographic resources and will not be carried through into detailed analysis.

Museum Collection: The museum collection at CACO includes archaeological, archival, historical, and natural history objects, including prehistoric artifacts, a scrimshaw collection, historic papers, and a large historical photographic collection. CACO is experiencing a lack of storage, display, and research spaces with the necessary environmental controls. While the lack of storage space and the catalog backlog of objects is a threat to the museum collection, hunting does not include collecting artifacts, or disturbing any objects that would be of value to the CACO museum collection. The museum collection impact topic will not be addressed in the detailed analysis.

1.6.3 Management and Operations

Changes to staffing levels and ranger duties: NPS adds enforcement staff during the summer peak season for support in enforcing CACO regulations and other laws, and assisting and serving the public. Seasonal employees that are necessary for the enforcement of regulations and the safety of visitors during the summer are not needed during the hunting season (C. Thatcher, personal communication, May 14, 2004; B. Grant, personal communication, August 26, 2004). Workloads for the rangers are greatly reduced at this time (M. Minnerath, personal communication, May 12, 2004). Ranger duties stay within the normal and expected enforcement duties during the fall, and such changes to these duties are negligible. The proposed alternatives do not require any changes to staffing levels and ranger duties, and as such this topic was not carried forward into the detailed analysis.

Cost to Implement: The hunting program costs are generally limited to a portion of the year-round ranger salaries, which would be paid even if the program was terminated, costs to post “no hunting” areas, and the costs to print the hunting brochure. These latter costs are a minimal and insignificant portion of the CACO budget. The staff members implementing this program are permanent full-time employees and their salaries are not increased or decreased based on what form the hunting program takes. Therefore, cost to implement will not be carried forward into the detailed analysis.

1.6.4 Geology

CACO is host to a variety of outstanding geological features with unusual intrinsic value. Many of these geological features are regularly viewed and studied by a wide range of visitors, educators, and scientists and are considered a valuable natural resource. Hunting activities do not alter geologic features and resources at CACO. Therefore, geological resources will not be carried forward into the detailed analysis portion of this Final EIS.

1.6.5 Floodplains

Floodplain or flood-prone areas include those low-lying areas that are flooded during 100 year storm events. These areas are generally mapped by the Federal Emergency Management Agency and those maps are made available to the general public. Local and some state governments implement the federal floodplain protection regulations, which at a minimum regulate construction of dwellings and other structures in the floodplain. Massachusetts regulations also review fill placed in floodplains that could reduce floodplain capacity. Hunting activities do not involve the filling or alterations of floodplain areas,

and do not require the construction of any structures. Earthwork and construction activities that could adversely affect flood-prone areas are not part of any hunting activity. Given that the alternatives proposed will not affect floodplain values, this topic will not be carried forward into the detailed analysis.

1.6.6 Wild and Scenic Rivers

Wild and scenic rivers are designated by the federal mandate and are provided with advance protection at the federal, state, and local levels. Wild and scenic rivers have not been designated within CACO boundaries; therefore, this topic will not be carried forward into the detailed analysis.

1.6.7 Transportation

CACO does not have a public transportation system that operates during the hunting season, and the hunting program does not require or include any transportation services. Hunters utilize their own vehicles, and park in designated areas. The proposed alternatives will not affect transportation, and as such will not be carried forward into the detailed analysis.

1.6.8 Indian Trust Resources

Indian trust resources include those resources not on Native American owned property, but rather on DOI administered lands that are held in trust on behalf of Native American tribes. Secretarial Order 3175 requires that any anticipated impacts to Native American trust resources from a proposed project or action by DOI agencies be explicitly addressed in environmental documents. The federal Indian Trust responsibility is a legally enforceable fiduciary obligation on the part of the United States to protect tribal lands, assets, resources, and treaty rights, and it represents a duty to carry out the mandates of federal law with respect to Native American and Alaska Native tribes.

CACO as a public holding is not considered a Native American trust resource and there are not any such designated resources on CACO. The hunting program and the proposed alternatives do not conflict with any American Indian interests. Therefore, this topic will not be carried forward into the detailed analysis.

1.6.9 Prime or Unique Farmland

The Natural Resource Conservation Service (1993) defines prime farmland as soil that produces general crops such as common foods, forage, fiber, and oil seed. Unique farmland is defined as soil that produces specialty crops such as fruits, vegetables, and nuts. The soil types in the Barnstable County area provide limited support for prime farmland and unique farmland based on these definitions. There are three prime farmland soil types found on CACO, in very limited quantity: Boxford silt loam (28 acres); Merrimac sandy loam (15 acres); and Nantucket sandy loam (36 acres). Areas of agricultural use on CACO do not exist and as such the proposed alternatives do not involve alterations to any land-use or soil. Therefore, prime or unique farmland will not be carried forward as an impact topic.

1.6.10 Lightscape

In accordance with NPS Management Policies (2001b), the NPS strives to preserve natural ambient lightscapes, which are resources and values that exist in the absence of human caused light. Any actions related to the hunting program at CACO would not be expected to result in any changes to the existing lightscape conditions. Therefore, this topic will not be carried forward into the detailed analysis.

1.6.11 Soundscape Management

In accordance with *NPS Management Policies, 2001* (2001b) and *NPS Director's Order 47: Sound Preservation and Noise Management* (2001c), an important part of the NPS mission is preservation of natural soundscapes associated with Parks. Natural soundscapes exist in the absence of human-caused sound. The natural ambient soundscape is the aggregate of all the natural sounds that occur in Park units, together with the physical capacity for transmitting natural sounds. The frequencies, magnitudes, and durations of human-caused sound considered acceptable varies among NPS units, as well as potentially throughout each Park unit, are generally greater in developed areas and less in undeveloped areas.

The hunting program does create some limited and negligible noise from the use of firearms. These sounds would be considered irregular and intermittent and would be limited spatially to those areas open to hunting, and temporally during the hunting seasons, when hunters are actively pursuing game. Situations with the highest concentrations of hunters, such as a Saturday or holiday mornings during the pheasant-hunting season would create more firearm-related noise than other hunting seasons in which the taking of game is more evenly distributed over the season. The following two examples are provided to help gauge the number of shotgun blast that could result from pheasant and deer hunting. There is no data or information regarding the number of shots a hunter may take to harvest these game species. Therefore, some assumptions are made and it is acknowledged that shotgun blasts are not evenly distributed from Monday through Saturday, but are weighted towards Saturday. Additionally, shotgun blasts are spread out over 16,507 acres of upland and wetland habitat.

For example, approximately one-third (267) of the 800 stocked pheasants are taken (Bump and Field 1999), involving a minimum of 267 to 534 shot gun blasts (assumes one to two shots per bird taken) over a 6 week period, or an average of about 45 to 90 per 6-day week, or 7 to 14 per day. Furthermore, assuming that one-half of these shots occur on Saturdays, this would suggest 23 to 45 shots per Saturday. The number of shots would likely be weighted towards Saturdays, early and late in the season.

Conversely, deer hunting may involve taking approximately 26 deer during the shotgun season, resulting in a range of 26 to 52 blasts (assumes one to two shots per deer taken) during the one-week season, averaging 4 to 8 per day. If one-half of those shots occurred on the one Saturday of deer hunting, 13 to 26 shots might be expected. Additionally, the use of dogs during the rabbit-hunting season creates a nominal amount of noise from barking and shotgun blasts. Again, these noises are limited to the specific season, those areas hunted, and generally on Saturday and holiday mornings. Considered as a whole, the noises generated by hunting over the course of the year relative to the overall soundscape across CACO are negligible. Therefore, this topic will not be carried forward into the detailed analysis.

1.6.12 Environmental Justice

According to the United States Environmental Protection Agency (USEPA), environmental justice is the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income, with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people, including a racial, ethnic, or socioeconomic group, should bear a disproportionate share of the adverse environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local, and tribal programs and policies.

Presidential Executive Order 12898, "General Actions to Address Environmental Justice in Minority Populations and Low-Income Populations," requires all federal agencies to incorporate environmental justice into their missions by identifying and addressing the disproportionately high and/or adverse human health or environmental effects of their programs and policies on minorities and low-income populations

and communities. Any actions related to the hunting program would not be expected to have health or environmental effects on minorities or low-income populations or communities as defined in the USEPA Draft Environmental Justice Guidance (USEPA 1996). Therefore, this topic will not be carried forward into the detailed analysis.

1.6.13 Non-Federal Lands Within CACO – Private Residential and Commercial Properties and Municipal and State lands

Of the 43,570 acres within the CACO boundaries, the NPS owns approximately 27,000 acres of terrestrial and submerged land. More than 30 percent of the land within CACO boundaries is owned by other public entities, and nearly 4 percent is privately owned, but these still fall in the NPS jurisdiction. Although private properties are within the CACO boundary, the NPS has limited mechanisms to regulate their development and use, specifically the threat of condemnation. As a result, the NPS must rely on local zoning bylaws and health codes, state regulations, and cooperation on the part of local, town, state, and other federal property owners. The principal protection mechanism available to the NPS is the acquisition of development rights or full title to a given property within its boundary. The NPS also prohibits some activities on private lands that could harm CACO resources or visitors; these are addressed through law or regulations. For example, wildlife protection, commercial fishing, carrying a loaded weapon in proximity to a residence, fires, and boating or vehicle use contrary to CACO rules.

In some areas in and adjacent to CACO, developing areas are affecting sensitive resources. The NPS has the authority to protect sensitive areas within CACO's boundaries, but it has limited legal authority outside CACO boundaries.

The greatest issues regarding the sensitive lands on CACO involve development pressure. The juxtaposition of town, state, and NPS lands in various areas complicates this issue as developable land is very scarce. As such, hunting is not seen as an issue that affects landownership or development. Furthermore, the NPS provides a safety measure to private homeowners by prohibiting hunting within 500 feet of any occupied or unoccupied dwelling. The proposed alternatives will not hinder or alter in an adverse or beneficial way public and private access to any areas on CACO; therefore, this topic will not be advanced into the detailed analysis.