



BACKGROUND INFORMATION

The National Park Service aims to preserve and restore natural abundances, diversities, and distributions of native vegetation. Seashore managers are concerned that the high density of white-tailed deer on Fire Island and at the William Floyd Estate is causing changes in the natural regeneration of vegetation due to heavy levels of browsing, particularly in maritime forests.

The following areas within the Seashore would be impacted by the plan:

- **Fire Island Communities** — 17 privately owned communities within the boundaries of the Seashore
- **Sunken Forest** — A 44-acre globally rare old-growth maritime holly forest
- **Other Fire Island natural areas** — Includes other maritime forests at the Carrington Estate, Talisman, Blue Point, and the Otis Pike Fire Island High Dune Wilderness Area
- **William Floyd Estate** — A 613-acre estate on Long Island which includes the 20-acre “historic core,” forests, fields, and an extensive salt marsh





EXISTING CONDITIONS

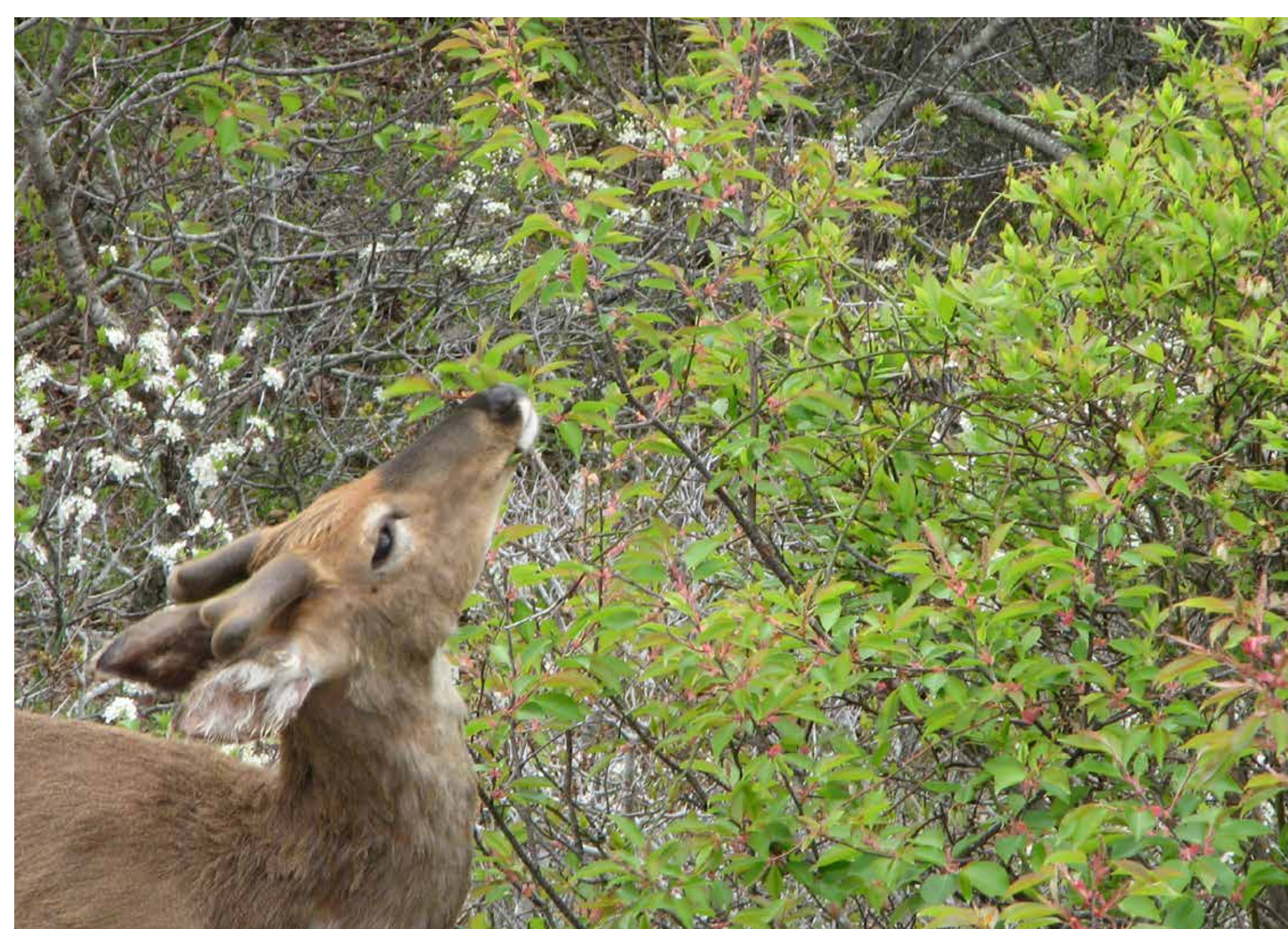
Seashore staff currently undertakes efforts to monitor changes in vegetation (particularly maritime forests) and the deer population. Long-term monitoring has shown that natural forest regeneration on Fire Island and at the William Floyd Estate is not currently occurring at adequate levels.

Vegetation Monitoring

Vegetation monitoring occurs in the Sunken Forest, other maritime forests on Fire Island (Talisman and Blue Point), and the William Floyd Estate. Monitoring takes place annually, but each area may not be visited more than once every five years (although this level of effort may increase in the near future). The goal is to measure vegetation through time to show whether deer browsing is inhibiting the natural regeneration of the forests. Currently all forests are not regenerating at adequate levels. Plants are also monitored at the Fire Island Lighthouse and Fire Island Wilderness.

Deer Population and Behavior Monitoring

Deer densities have been monitored annually (or every three years) using distance sampling surveys throughout Fire Island and at the William Floyd Estate since the late 1990s. Behaviors (initial and reactive) have been noted in conjunction with distance sampling surveys since 2008.





PURPOSE AND NEED

Purpose

The *purpose* of the plan/EIS is three-fold:

- to develop a deer management strategy that supports protection, preservation, regeneration, and restoration of native vegetation and other natural and cultural resources at the Seashore
- to develop a deer management strategy that reduces undesirable human-deer interactions in the Fire Island communities
- to promote public understanding of the complex relationship between deer and Seashore resources, tick-borne diseases, people, and infrastructure

Need

Information collected as part of the research conducted at the Seashore indicates the need for a management plan to address impacts associated with changes in white-tailed deer abundance, distribution, and behavior, including the following:

- adverse impacts on native vegetation resulting from heavy browsing by white-tailed deer
- adverse impacts on natural and cultural resources at the William Floyd Estate resulting from heavy browsing by white-tailed deer
- adverse interactions between deer and humans and the developed environment as a result of
 - the presence of abundant food sources (including naturally occurring vegetation, unsecured garbage, intentional feeding, gardens, ornamental landscaping), and shelter in the Fire Island communities
 - habituation of deer to the unthreatening presence of humans and conditioning of deer, particularly to food sources, in the Fire Island communities and high-visitor use areas

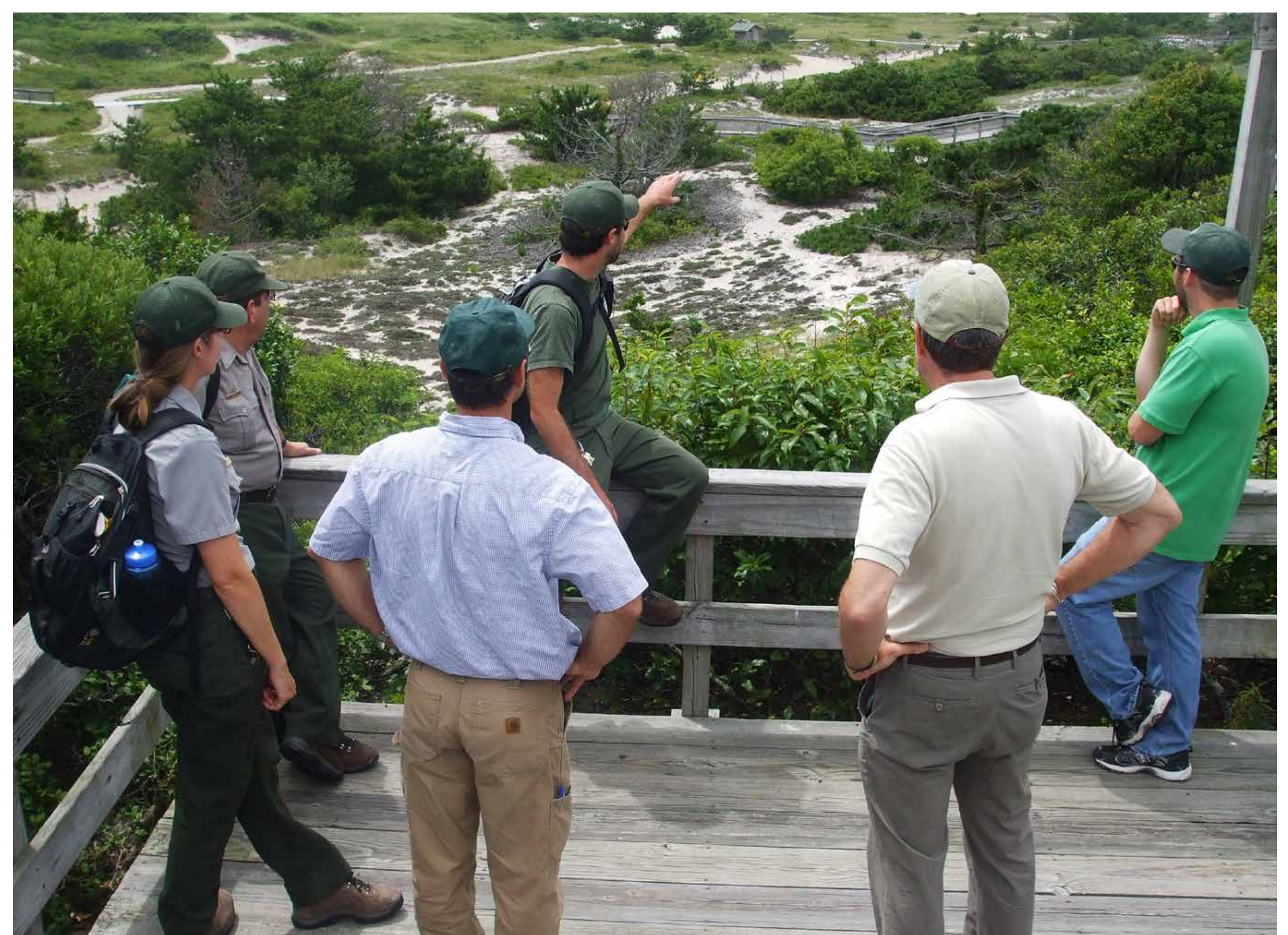
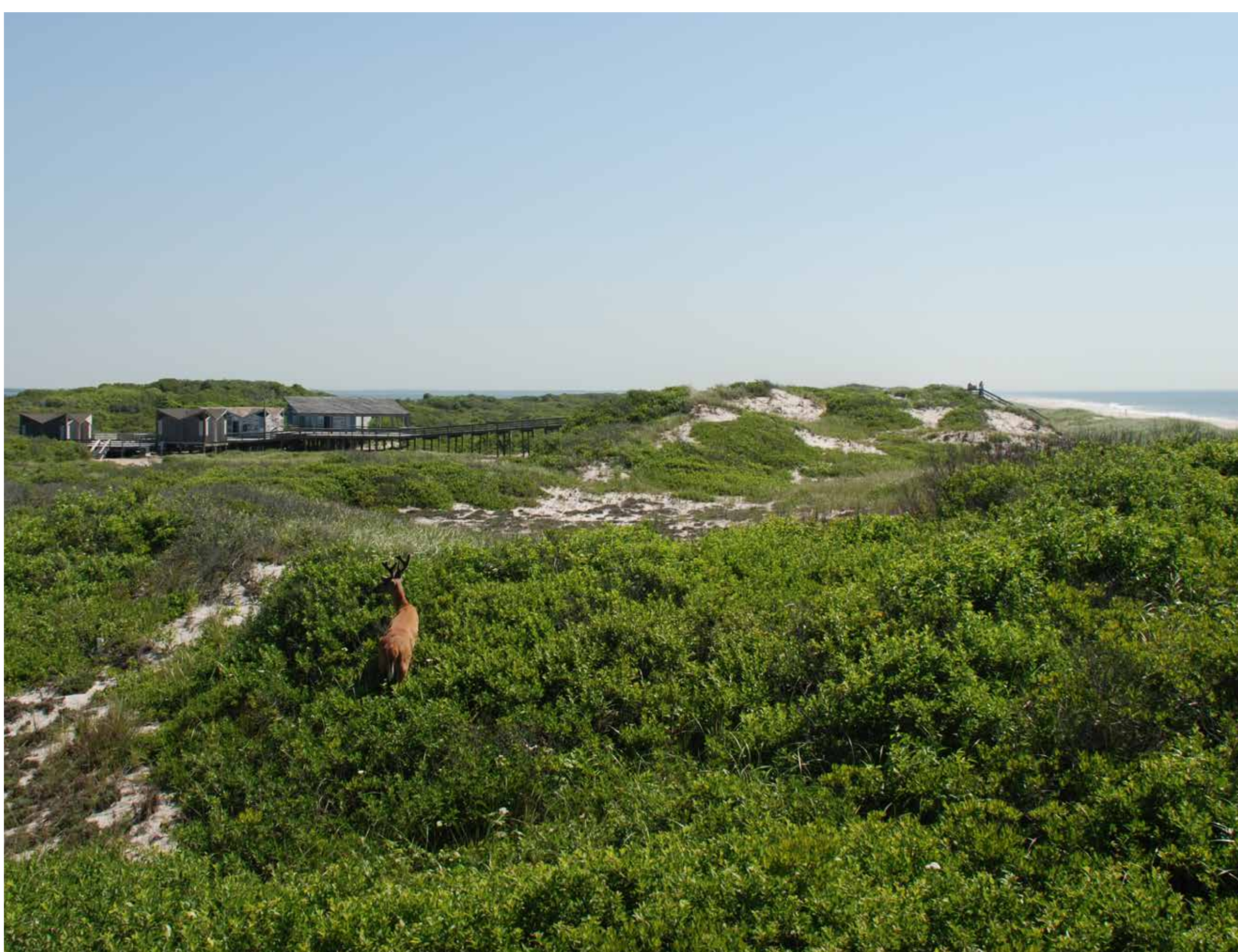




OBJECTIVES

The objectives for deer management at the Seashore have been developed to achieve certain conditions throughout the Seashore as a whole and to achieve certain resource conditions at specific areas within the Seashore.

- Manage a viable white-tailed deer population in the Seashore.
- Promote natural regeneration of native vegetation.
- Protect special-status species/vegetation communities and their habitat from high levels of deer browsing.
- Work collaboratively with other land management agencies on issues associated with abundance, distribution, and behavior of white-tailed deer at the Seashore.
- Improve public understanding of the issues such as human-deer interactions, the impact of white-tailed deer on cultural and natural resources, and deer-tick relationships.
- Continue to expand the knowledge base regarding the relationship between deer browsing and plant communities at the Seashore to improve management decisions.
- Within the Sunken Forest, maintain the character of the globally rare maritime holly forest by creating conditions for the regeneration of key canopy constituent tree species and a reasonable representation of herbs and shrubs.
- Reduce the potential for undesirable human-deer interactions.
- Manage deer browse to allow for the restoration and preservation of the cultural landscape of the William Floyd Estate and for the regeneration of the forest within the lower acreage of the William Floyd Estate.





DESIRED CONDITIONS

Desired conditions are resource conditions that the National Park Service aspires to achieve and maintain over time, and the conditions necessary for visitors to understand, enjoy, and appreciate those resources.

- Provide for natural re-establishment of seedlings and saplings at densities sufficient to regenerate the exiting canopy composition in maritime forests within ***Fire Island natural areas***.
- Maintain the character of the ***Sunken Forest***, as stated in the Seashore's enabling legislation, by fostering the regeneration of key canopy constituent tree species and a reasonable representation of herbs and shrubs reminiscent of its floristic composition when Fire Island National Seashore was established.
- Reduce undesirable human-deer interactions within the ***Fire Island communities***.
- Manage historic ornamental plantings at the ***William Floyd Estate***, including full restoration of the character of the historic core area for aesthetics and public interpretation.
- Provide for natural regeneration of native forests within the lower acreage of the ***William Floyd Estate***.





TARGETS

Vegetation targets — specific targets have been established for forested areas of the Seashore which include the Sunken Forest, other maritime forests on Fire Island, and the William Floyd Estate.

Sunken Forest — Targets for the Sunken Forest were created by utilizing data collected in 1967, a time in which deer were rarely and the Sunken Forest was thriving. Forest regeneration targets are specific to this rare forest type (see table below). Vegetation targets are also set for the density of shrubs and percent cover of all vascular plants.

TARGET FOR DENSITY OF SAPLINGS (>1 M IN HEIGHT AND <3.0 CM DBH) IN THE SUNKEN FOREST. ADAPTED FROM (ART 1976)

Common Name	Scientific Name	Stems/hectare
Canadian serviceberry	<i>Amelanchier canadensis</i>	380-580
Sassafras	<i>Sassafras albidum</i>	40-80
Black gum	<i>Nyssa sylvatica</i>	100-180
American holly	<i>Ilex opaca</i>	30-50
Black cherry	<i>Prunus serotina</i>	0-10

Other maritime forests on Fire Island and the William Floyd Estate — Targets for other forested areas focus primarily on forest regeneration, and were established using site-specific data and recommendations in the scientific literature. Forest regeneration targets (adequate recruitment) will be reached when an average of 2 seedlings per square meter is observed.

Human-deer interaction targets — Less than 3% of deer approach biologists during distance sampling surveys





ALTERNATIVE A: NO ACTION

Vegetation Monitoring

Vegetation monitoring would continue at current levels on federal tracts within the boundaries of the Seashore. Due to the variety of habitat types, different sampling protocols are established for each area.

Deer Population Management Methods

Island-wide: No actions would be taken to manage the deer population size.

Sunken Forest: No actions would be taken to control deer access to vegetation within the Sunken Forest.

Fire Island Communities: No actions would be taken to control the deer population within the Fire Island communities to reduce negative human-deer interactions.

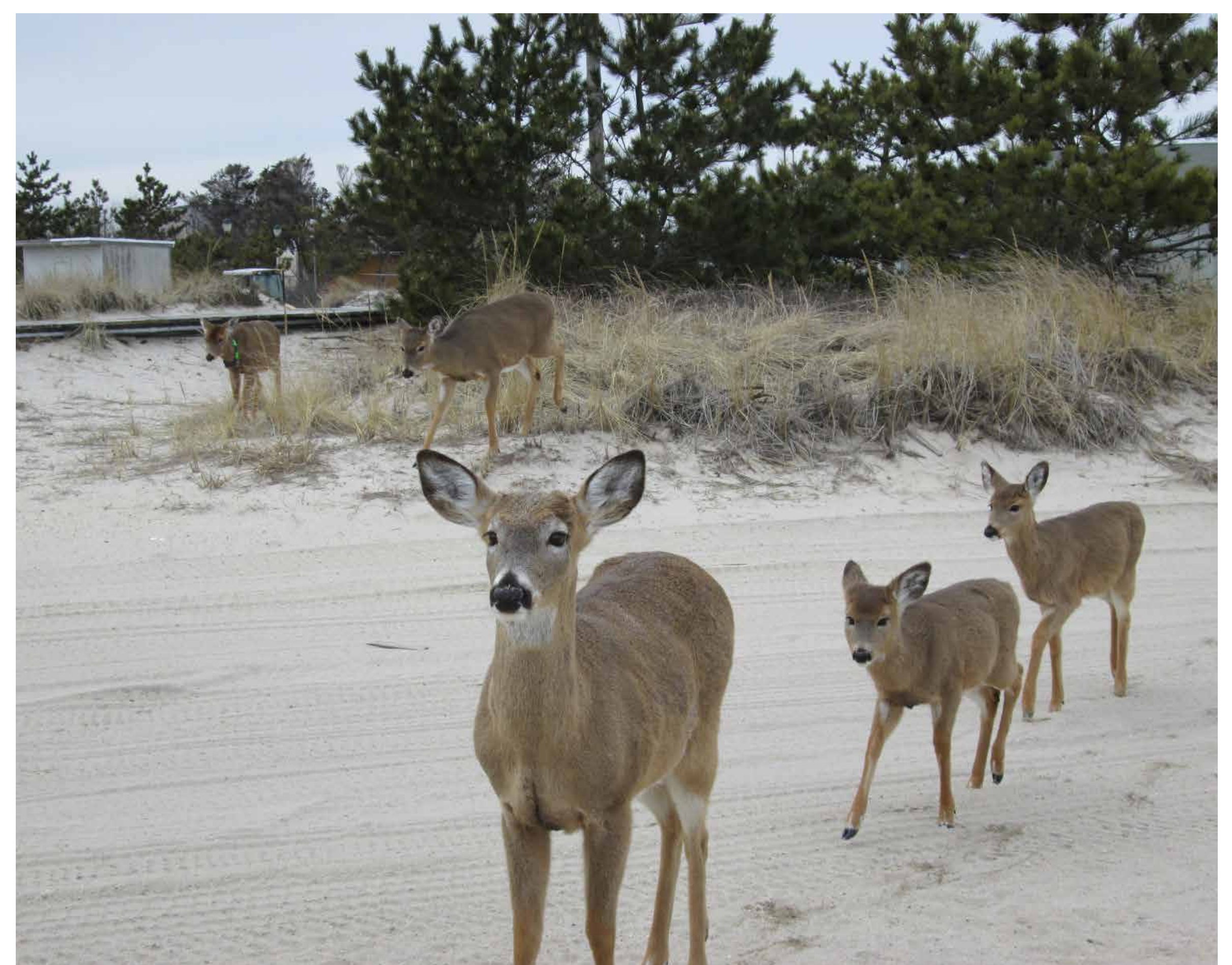
William Floyd Estate: No actions would be taken to reduce deer numbers.

Deer Population and Behavior Monitoring

Deer population and behavior monitoring would continue. Distance sampling surveys would be conducted to collect information on the deer herd, estimate the density of white-tailed deer, and record habituation/food-conditioning behaviors.

Education

Current levels of education would continue.





ELEMENTS COMMON TO ALL ACTION ALTERNATIVES

Vegetation Monitoring

Vegetation monitoring would occur every three years to measure for established targets within Seashore natural areas, the Sunken Forest, and the William Floyd Estate.

Deer Population Management Methods

Island-wide: The deer population would be reduced to a density at which natural regeneration and re-establishment of native vegetation would take place. This initial target density is 20-25 deer per square mile.

Sunken Forest: A fence would be erected around the 44-acre Sunken Forest and deer would be removed from within this area. Fencing promotes the regeneration and re-establishment of understory vegetation.

William Floyd Estate: The existing boundary fence would be secured to exclude deer.

Deer Population and Behavior Monitoring

Monitoring to determine deer densities and behavior of deer would occur on an annual basis in all areas.

Education

Education efforts would be enhanced throughout the Seashore, in Fire Island communities, and adjacent lands in the following ways:

- Raise awareness of the role humans play in deer-related issues.
- Improve collaboration with Fire Island communities, New York State, Suffolk County, and environmental groups.
- Expand use of web and social media outlets to communicate deer management and human-deer conflict messages with the public.
- Enhance education and enforcement of existing policies regarding deer management and feeding of wildlife.





ALTERNATIVE B

In addition to the actions common to all action alternatives, the actions described below would be taken.

Deer Population Management Methods

Island-wide: The National Park Service would use an acceptable fertility control agent to reduce and maintain the deer population at the target density.

Fire Island Communities: Deer within the Fire Island communities that are observed regularly approaching humans would be translocated to the Fire Island Wilderness. Translocated female deer would also be treated with a fertility control agent that meets NPS criteria.*

William Floyd Estate: The deer population would be reduced to and managed at the target density using a fertility control agent that meets NPS criteria. Rotational fencing of forested areas in the lower acreage would be installed for two consecutive 10-year rotations based on vegetation recovery monitoring. Approximately 80 acres of the William Floyd Estate, referred to as the historic core, include the historic house and other accessory structures. The historic core would be fenced to protect the cultural plantings, which are part of the cultural landscape of the site. Deer would be removed from within these fenced areas.



William Floyd Estate Proposed Fencing - Alternative B

*Criteria for an Acceptable Fertility Control Agent

1. The fertility control agent is federally approved and state-registered for application to free-ranging white-tailed deer populations.
2. The agent provides multiple-year (three or more) efficacy (80%–100%) to minimize the cost and labor required to administer the drug to a large number of deer.
3. The agent can be administered through remote injection to avoid capturing the animal on a regular basis and to increase the efficiency of distribution.
4. The agent would leave no harmful residual in the meat (meat would be safe for human and non-target animal consumption).
5. The agent would have minimal impact on deer behavior (e.g., reproductive behaviors, social behaviors, out of season estrous cycling).



Alternative B could take up to 33 years for vegetation recovery to be fully realized.



ALTERNATIVE C

In addition to the actions common to all action alternatives, the actions described below would be taken.

Deer Population Management Methods

Island-wide: The National Park Service would use direct reduction methods to reduce and maintain the deer population at the target density. Direct reduction methods would include

- sharpshooting;
- capture and euthanasia; and
- public deer hunt at the Fire Island Wilderness.

Fire Island Communities: Deer that are observed regularly approaching humans would be captured and euthanized.

William Floyd Estate: The deer population would be reduced to and managed at the target density using direct methods listed above. Small-scale fencing would be implemented around selected plants important in maintaining the cultural landscape within the historic core area.



Alternative C would take approximately 12 years for vegetation recovery to be fully realized.



ALTERNATIVE D: IDENTIFIED AS THE NPS PREFERRED ALTERNATIVE

In addition to the actions common to all action alternatives, the actions described below would be taken.

Deer Population Management Methods

Island-wide: The National Park Service would use direct reduction methods to reduce the deer population to the target density. Direct reduction methods would include

- sharpshooting;
- capture and euthanasia; and
- public deer hunt at the Fire Island Wilderness.

To maintain the deer population at the target density the National Park Service would continue to use direct reduction methods and/or use an acceptable fertility control agent (refer to NPS criteria in Alternative B).

Fire Island Communities: As under alternative C, deer that are observed regularly approaching humans would be captured and euthanized.

William Floyd Estate: The deer population would be reduced and maintained as described above. As in alternative B, approximately 80 acres of the William Floyd Estate, referred to as the historic core, would be fenced to protect the cultural landscape.

Identification of the Preferred Alternative

Alternative D was identified as the preferred alternative because

- immediate reduction of the deer population would provide the greatest protection of the Seashore's resources while imposing a minimal risk during implementation.
- it provides Seashore managers with the widest range of options for managing both deer browse and the deer population levels.
- the range of options provides flexibility which would allow Seashore managers the best means of balancing resource protection with public safety.



**Alternative D would take approximately 12 years
for vegetation recovery to be fully realized.**



NEPA PROCESS/TIMELINE

Summer 2011	Notice of Intent to Prepare the Deer Management Plan and Environmental Impact Statement
Summer 2011	Public Scoping Period (date)
2011—2013	NPS Reviews Public Scoping Comments, Gathers Data, and Drafts Preliminary Alternatives
2013—2014	Draft Deer Plan/EIS Prepared for Internal Review
Summer-Fall 2014	Draft Deer Plan/EIS to Public for Review and Comment (60 days) and Public Meetings
Winter 2014/2015	Analysis and Consideration of Agency and Public Comments
Spring 2015	NPS Publishes Final Deer Plan/EIS
Spring 2015	NPS Publishes Record of Decision

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How to Comment

Online:

Electronic comments are preferred.

Please submit at: <http://parkplanning.nps.gov/FireIslandDeerManagementPlan>.

Written:

Mail your Comments to:

**Superintendent
Fire Island National Seashore
120 Laurel Street
Patchogue, NY 11772-3596
Attn: Draft Deer Management Plan/EIS**

OR

Submit your written comments today. A comment drop box is available at each station.

Before including your address, phone number, e-mail address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. We cannot guarantee that personal identifying information will be withheld from public review.