

# 2019 Deer Management Plan Implementation

## Frequently Asked Questions

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### ***What is the Fire Island National Seashore White-tailed Deer Management Plan?***

The National Park Service (NPS) initiated a comprehensive and public planning process in 2011 to address issues related to an increase in white-tailed deer abundance and changes in deer distribution and behavior. The plan was approved in April, 2016. Planning documents may be found online at <http://parkplanning.nps.gov/FireIslandDeerManagementPlan>.

The goals of the plan are to:

- Preserve and restore a natural forest habitats including a globally rare maritime forest ecosystem that is in peril on Fire Island and preserve the historically significant landscape at the William Floyd Estate.
- Promote a greater understanding of a healthy, balanced ecosystem that can regenerate naturally and sustain all of the wildlife that depend on it for survival (including deer, birds, small mammals, amphibians, and reptiles).
- Ensure a safe experience for park visitors by keeping wildlife wild and reducing direct encounters between humans and deer.

### ***How will the plan achieve the above goals?***

The approved deer management plan calls for an integrated management strategy to achieve a deer density goal of 20 to 25 deer per square mile on NPS lands. The strategy includes the following management tools:

- education and outreach;
- deer and vegetation monitoring;
- fencing; and,
- deer population reduction and maintenance through removal operations; a public hunt only within Fire Island Wilderness, and the use of fertility control if a federally-approved agent which meets NPS criteria becomes available.

### ***When will management actions be implemented?***

Throughout the planning process and since the plan's approval, the NPS has conducted education and outreach and deer and vegetation monitoring efforts.

The window of operations for the first phase of the program is February 20 to March 31, 2019 at the closed William Floyd Estate. Pending additional funding, the second phase will be carried out in 2020 at the William Floyd Estate and on Fire Island, and the third phase in 2021 on Fire Island.

### ***Where will management actions be implemented?***

Outreach and education take place at all NPS sites throughout the Seashore, at the William Floyd Estate, and in Fire Island and gateway communities on Long Island. Deer and vegetation monitoring takes place at NPS sites throughout the Seashore and at the William Floyd Estate. Deer population surveys also take place within some Fire Island communities.

Deer removal operations will be implemented as follows:

- Removal operations will be implemented by federal employees only on NPS lands within the boundary of Fire Island National Seashore.
  - Beginning in 2019 at the William Floyd Estate, a unit of the Seashore located in Mastic Beach on Long Island.
  - Beginning as early as winter 2020 on Fire Island, pending funding.
- A public hunt was approved through the deer management plan and would take place only within the Fire Island Wilderness on the eastern end of the Seashore.
- The primary focus of the NPS in Fire Island communities is enhanced education and outreach and deer monitoring. Upon request, the NPS will coordinate with communities and the New York State Department of Environmental Conservation (NYSDEC) to develop community deer management plans.

### ***How will removal operations be implemented in 2019?***

The United States Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services (USDA-APHIS) will implement removal operations at the William Floyd Estate in winter 2019 while it is closed to the public. These federal employees are highly qualified firearm experts experienced in conducting removal operations within lands adjacent to a suburban environment.

USDA-APHIS and NPS have obtained the proper permits through the New York State Department of Environmental Conservation and will abide by applicable New York State Environmental Conservation Law.

The NPS will patrol public areas to ensure compliance with the closures and ensure any other public safety measures that may be needed are taken.

### ***How will the public be notified?***

The public will be notified of area closures and removal operations through media releases, web and social media alerts, and printed notices at NPS sites.

***What will be done with the meat?***

All meat safe for human consumption will be donated to local food banks.

***How many deer will be taken in 2019 at the William Floyd Estate?***

It's too soon to say. Removal operations will be carried out over a period of at least two years to achieve a deer density goal of approximately 20 to 25 deer per square mile. The outcome of this year's operation and deer and vegetation monitoring will guide removal operations throughout the duration of the program.

***How was the desired deer density goal established?***

Deer densities of 20 to 25 deer per square mile have been shown to allow for a healthier, more diverse forest habitat which can support a healthy deer herd as well as other native wildlife.

The initial density goal of 20 to 25 deer per square mile will be maintained until vegetation is given ample time to recover from over-browsing. Information collected through deer and vegetation monitoring will guide future management actions. The deer density goal can be adjusted if and when vegetation goals are reached.

***Is NPS also carrying out deer management actions on Fire Island this year?***

Deer management actions taking place at Robert Moses State Park in 2019 are outside of the Fire Island National Seashore boundary and are guided by a New York State Parks management planning process. While NPS works closely with New York State Parks as neighbors, the removal operation at Robert Moses State Park is not part of the approved Fire Island National Seashore Deer Management Plan.

## Deer and Vegetation Monitoring

***How many deer are there on Fire Island? How has that number changed over time?***

Distance sampling (ground-based) surveys from 2016-2018 indicate there are approximately 400 deer on Fire Island and 100 deer at the William Floyd Estate.

When Fire Island National Seashore was established in 1964, deer were rarely observed. Aerial surveys documented 46 deer in 1971 and 500 in 1989. Ground-based surveys conducted since 1995 have estimated the deer population to be between 300 and 500 with a peak in 2003 of 700 deer.

At the William Floyd Estate, ground-based surveys conducted since 1996 have estimated the population to be between 80 and 240 deer.

### ***How is the number of deer estimated?***

Since 1995 surveys to estimate deer numbers, known as distance sampling surveys, have been conducted on Fire Island. Distance sampling is a ground-based method of estimating the number of animals in a given area which uses survey routes, or transects, within certain stretches of the island, referred to as tracts or study units, to estimate the total number of deer.

NPS lands were divided into the following study units for distance sampling: Robert Moses State Park, Lighthouse Tract, Kismet to Lonelyville, Ocean Beach to Ocean Bay Park, Sailors Haven, Fire Island Pines, Davis Park, Fire Island Wilderness and the William Floyd Estate. Each site is now surveyed every year.

### ***What are vegetation goals? What is the current state of Fire Island forests?***

White-tailed deer have depleted the native herbaceous, seedling, and sapling layers which prevents the ability of forests across Fire Island and at the William Floyd Estate to mature and regenerate. This also decreases habitat for a range of native wildlife species.

Vegetation goals are set to allow for regeneration and maintain forest structure over the long-term. The amount and type of young trees and shrubs in the understory are measured and help determine the ability of the forest to survive over the long-term.

In the globally rare Sunken Forest, vegetation goals are based on information collected in 1967, a time when the forest was thriving and capable of regeneration. The understory of the Sunken Forest is not currently capable of regeneration and this rare forest type could be lost forever. For other forest sites within the Seashore (Talisman and Blue Point) a standard measure used across national parks in the Northeast is used as a guideline for healthy forest understory conditions. These sites are currently incapable of regeneration. At the William Floyd Estate vegetation monitoring shows that the understory is threatened by deer browse.

### ***How frequently are deer and vegetation surveys conducted?***

Both deer and vegetation monitoring efforts have been enhanced to provide a better understanding of the deer population and habitat condition. Deer surveys are conducted every year at all survey sites across Fire Island and at the William Floyd Estate. A long-term program for vegetation monitoring has been developed for maritime forests across Fire Island and will be carried out every 3-5 years to better detect changes in vegetation as a result of deer management. The information collected through deer and vegetation monitoring will be analyzed expeditiously to inform management actions the following year.

## Deer Management Plan

### ***Why is deer management needed?***

White-tailed deer have depleted the native herbaceous, seedling, and sapling layers which prevents the ability of forests across Fire Island to mature and regenerate, and decreases habitat for a range of native wildlife species. The primary goal of the management plan is to reduce the size of the deer population and decrease the browsing pressure on maritime forest ecosystems and on the historic landscape at the William Floyd Estate.

In addition to resource degradation, “food-conditioned” deer – animals conditioned, or attracted, to a particular reward such as food – may pose safety concerns. Food-conditioned deer may approach humans or look for food in the Fire Island communities and in high visitor use areas on NPS lands. This may lead to undesirable human-wildlife interactions.

### ***Why aren't fertility control and surgical sterilization being used?***

Fertility control is an option in the Deer Management Plan for maintaining the deer population. Fertility control would take too long (10+ years) to achieve the desired deer density and protect natural habitats. Surgical sterilization was considered but dismissed during the planning process because it does not meet the NPS criteria and because the risk of deer mortality was not acceptable.

Once the desired deer density is achieved and if a fertility control agent which meets NPS criteria (see below) becomes available, fertility control may be used to maintain the deer population. These criteria consider NPS mission, law, and policy and were established in consultation with NPS technical experts and partner agencies.

### ***Why isn't Porcine Zona Pellucida (PZP) an acceptable fertility control agent?***

At this time no fertility control agent, including PZP, meets all of the NPS criteria outlined in the Deer Management Plan (see below). The criteria call for a fertility control agent which:

1. Is federally approved and state-registered for application to free-ranging white-tailed deer populations.
2. Provides multiple-year (three or more) efficacy (80%–100%)
3. Can be administered through remote injection to avoid capturing the animal on a regular basis and to increase the efficiency of distribution.
4. Leaves no harmful residual in the meat (meat would be safe for human and non-target animal consumption).
5. Has minimal impact on deer behavior (e.g., reproductive behaviors, social behaviors, out of season estrous cycling).

PZP is not considered to be an acceptable agent because it does not meet criterion 1, 2, or 5. PZP (ZonaStat-D) was federally approved for use in July 2017 by the Environmental Protection Agency. However, it has not been registered or approved as a management tool for free-ranging deer populations in New York State. PZP vaccines require repeated vaccination and, therefore, do not provide multiple year (more than three years) efficacy. PZP also has been shown to cause repeated estrous cycling in females which can result in late pregnancies and behavioral changes.

### ***Was PZP previously used on Fire Island. Can it be used again?***

PZP was used on Fire Island as part of a larger research study. The use of PZP on Fire Island ended because the study questions were answered. In one area (Kismet to Lonelyville), it reduced deer numbers. In many other areas however it simply was not successful in reducing the number of deer over time. It can't be used at this time because it does not meet the NPS criteria outlined above.

### ***Why are human-deer interactions a problem?***

While people may not agree on how best to manage the deer population, social science conducted in Fire Island communities and adjacent to the William Floyd Estate showed that most residents agree on the following issues:

- Impacts associated with the deer population size and density, movements, and behavior.
- Impacts on landscaping and gardens; concerns about disease and ticks; sanitation issues; wildlife viewing opportunities; concerns about deer health; and interactions with pets.
- Concerns about impacts on deer such as habitat loss and behavior changes.

In addition, research revealed a majority of residents on Fire Island and almost half of residents in nearby communities on Long Island either worried about deer-related problems or did not enjoy deer at the Seashore.

Deer have become habituated to humans and conditioned to human food. This has led to undesirable human-deer interactions such as deer approaching humans, people feeding deer, and people inadvertently feeding deer by failing to secure trash cans or planting ornamental plants. Human-deer interactions are viewed as undesirable by the NPS because they raise the risk of injury to people and deer and increase the likelihood of property damage by deer.

### ***What actions can people take to help?***

Community members can help by planting deer-resistant plants and securing trash cans in residential, commercial, and visitor use areas. Residents and visitors to Fire Island must also maintain a safe distance, avoid approaching or touching deer, and not feed or provide supplemental food for these wild animals.

### ***Can Fire Island communities participate in deer management with the National Park Service?***

The primary focus of the NPS in Fire Island communities is enhanced education and outreach and deer monitoring. Upon request, the NPS will coordinate with communities and the NYSDEC to develop community deer management plans.

***Have lawsuits regarding the plan been filed?***

Two lawsuits were filed regarding the Deer Management Plan. The U.S. Attorney's Office Eastern District of New York represents the Superintendent of the Seashore in both lawsuits.

## William Floyd Estate

***What habitats can be found at the William Floyd Estate?***

The 613-acre William Floyd Estate consists of the historic house and surrounding fields of about 20 acres (known as the historic core), approximately 350 acres of coastal oak-heath forests, approximately 60 acres of small fields scattered among the forest setting, and approximately 180 acres of saltmarsh.

***How did the Floyd family use this landscape?***

The Estate is best known as the ancestral home and plantation of General William Floyd, one of four New York signers of the Declaration of Independence. The plantation was productive until 1880, producing a wide range of commodities that included cattle, crops, and boats. After the agricultural use was discontinued the family maintained the fields and trails seasonally, utilizing them for recreation and hunting. The fields are managed today as they were in 1976 when the property was donated to the NPS.