

White-tailed Deer Management Plan and Environmental Impact Statement Antietam and Monocacy National Battlefields and Manassas National Battlefield Park Public Scoping Meetings 2011



You're Invited! Your Participation Will Help Shape This Plan.

The National Park Service (NPS) is requesting your input in developing a White-tailed Deer Management Plan and Environmental Impact Statement (plan/EIS) for Antietam and Monocacy National Battlefields and Manassas National Battlefield Park. This plan/EIS is being developed for all three battlefields together because they all face similar issues relating to the high densities of deer within the battlefield boundaries and the effect the deer are having on the forest and cultural landscapes of the battlefields. Your participation is vital to our planning process. There are a number of ways to be involved, including attending one of the public scoping meetings, or submitting written or electronic comments (see last page for more information about how to submit comments).

Public Scoping Meetings

Scoping is the first step to involve the public in the planning process. Scoping includes holding meetings and providing opportunities for the public to comment so that their concerns are identified early and the analysis is focused on important issues. Because the plan/EIS will analyze many complex ecological, cultural, and social issues, your participation is encouraged and needed.

Each meeting will be in an open house format with a presentation. NPS staff will be on hand to visit with you, answer questions, and solicit your input. Attendees may also submit comments on written forms available at the meeting, on-line, or by mail as described in this newsletter. Directions to the meetings can be found on the parks' websites.

Public Scoping Meeting Times & Locations

Tuesday, April 12, 2011 6:00 pm—8:00 pm Manassas National Battlefield Park Visitor Center 6511 Sudley Road Manassas, VA 20109	Wednesday, April 13, 2011 6:00 pm—8:00 pm Antietam National Battlefield Visitor Center 5831 Dunker Church Road Sharpsburg, MD 21782	Thursday, April 14, 2011 6:00 pm—8:00 pm Monocacy National Battlefield Visitor Center 5201 Urbana Pike Frederick, MD 21704
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Sustaining Forest Regeneration and Protecting Cultural Landscapes: *A White-tailed Deer Management Plan for the Battlefields*

The NPS is preparing a White-tailed Deer Management Plan and EIS for the Antietam, Manassas, and Monocacy battlefields. This plan/EIS will analyze environmental impacts of several alternatives for managing deer to reduce impacts on native vegetation, forest regeneration, and the cultural landscapes of the battlefields. The National Environmental Policy Act (NEPA), along with NPS policy and related regulations, will guide the plan/EIS.

History of Deer Monitoring at the Battlefields

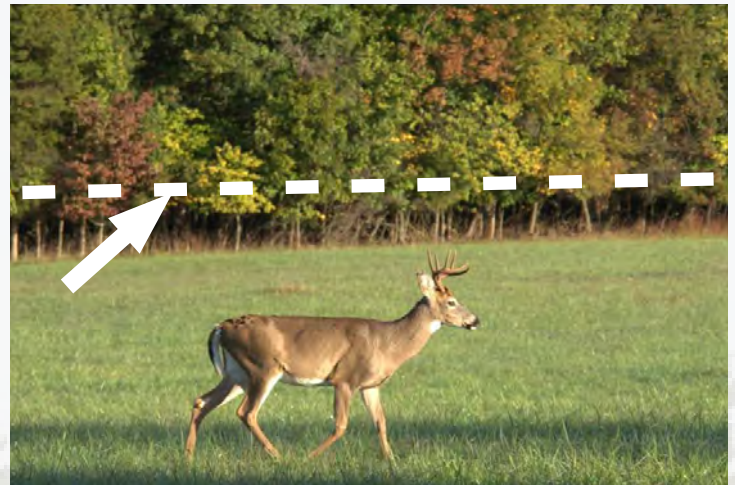
Within eastern national park units, landscapes have been managed to allow for the preservation and rehabilitation of natural, scenic, and historic lands. The result is a mixture of forest, shrub, and grassland, which constitutes excellent habitat for white-tailed deer. Since deer harvest has not traditionally been a component of management activities in the majority of park units, including the three battlefields, the population of deer has greatly increased over the years. Scientists have established that high deer numbers can have negative effects on plant and animal species.

The battlefields have monitored deer density and have assessed other related parameters such as deer movement, herd health, motor vehicle accidents, as well as various measures of vegetation condition and forest regeneration. Since Fall 2001, the battlefields have estimated deer densities using the Distance Sampling technique. Fall deer densities (in deer per square mile) have ranged from 91 to 136 at Antietam; 121 to 201 at Monocacy; and 86 to 190 at Manassas.

Although ideal density will change with the landscape composition, researchers with the U.S. Forest Service have estimated that a healthy deer density in Maryland's forests is approximately 20 deer per square mile (Horsley et al. 2003). The NPS biologists working in the National Capital Region agree that a deer density of about 20 per square mile is a sustainable deer density that allows for adequate forest regeneration, and results of monitoring show that this density has been substantially exceeded for many years.

The battlefields also conduct opportunistic sampling for chronic wasting disease (CWD)—a transmissible neurological disease of deer and elk that produces small lesions in brains of infected animals. These samples are taken from deer found as roadkill or that died naturally. No samples have tested positive for CWD to date. CWD has been found in deer in western Maryland and West Virginia, approximately 35 miles from Antietam, 55 miles from Manassas, and 60 miles from Monocacy.

The battlefields are working to protect historic farm fields and susceptible plantings from deer browse using tree tubes and fences, and attempting to reforest several wooded areas, including historic woodlots. These initiatives are being conducted to better represent the environment at the time of the battles, to enhance visitor understanding of the battles, and to improve natural areas.



There is a noticeable browse line along the edges of all woodlots at both Manassas and Monocacy, and Antietam exhibits an extensively browsed forest understory.

Vegetation Impacts and Park Research

All three battlefields have been conducting “Paired Plot” or “exclosure” studies to see what effects deer have on battlefield vegetation. This was done by pairing fenced areas, called exclosures, with open plots at sites located in various park habitats and then monitoring over several years for number of seedlings, saplings, and other plant parameters that could be affected by deer. Deer cannot enter the exclosures, but other small animals can, so the results seen could be attributed to deer.

In all three battlefields, ongoing exclosure studies indicate that high deer densities may pose a substantial threat to maintaining native forest communities and interfere with the management goals of historical parks. Results from exclosure studies conducted in 2003 and 2009 in Antietam and Monocacy wooded areas indicated no significant differences in seedling establishment between the fenced and the open plots, but native sapling species richness and abundance increased significantly in fenced plots over the six-year study period. All plots were below the “stocking rate”—a measure of seedling density—that is required for forest regeneration under the current high deer densities. At Manassas, studies from 2001 to 2004 on three forest types found in the park showed that deer have substantial impacts on forest structure and woody seedling composition. Forb (herbaceous plant) cover was 30% greater in fenced plots, and species richness and seedling survival rates were reduced in the open plots.

These impacts can be directly attributed to deer browsing and indicate that deer negatively affect the understory structure and species composition, which diminishes the value of habitat for other wildlife, particularly species that rely on a thick understory for survival, and changes the succession of the forest by selectively feeding on some species and avoiding others. Tree seedlings and saplings are key to ensuring sufficient tree regeneration and sustaining a diverse native forest structure.

Purpose and Need for Taking Action

The purpose of the plan/EIS is to develop a deer management strategy that supports preservation of the cultural landscape through the protection and restoration of native vegetation and other natural and cultural resources, and that provides for management of CWD at the parks. A plan is needed for the following reasons:

- Attainment of the parks' cultural landscape preservation goals and mandates are compromised by the high density of white-tailed deer in the parks.
- Browsing of and other damage to native seedlings, saplings and understory vegetation by deer in the parks has prevented successful forest regeneration.
- An increasing number of deer in the parks has resulted in adverse impacts to native vegetation and wildlife.
- Opportunities to coordinate with other jurisdictional entities currently implementing deer management actions to benefit the protection of park resources and values can be expanded (e.g., Bull Run Regional Park near Manassas).
- CWD is proximate to the parks and represents an imminent threat to resources in the parks. There are opportunities to evaluate and plan responses to threats from CWD over the long term.

Plan Objectives

The following objectives have been identified for this plan/EIS. Any alternatives considered must meet these objectives to a large degree to be considered reasonable and viable alternatives.

Vegetation

- Protect and promote forest regeneration and restoration of the natural abundance, distribution, structure, and composition of native plant communities by reducing excessive deer impacts. (e.g., buck rub, trampling, browsing, and invasive seed dispersal).
- Maintain, restore, and promote a mix of native plant species through effective deer management.

Wildlife and Habitat

- Maintain a viable white-tailed deer population within the park while protecting other park resources.
- Protect and preserve other native wildlife species by promoting the restoration of native plant communities.
- Promote early detection, and reduce the probability of spread of CWD.

Cultural

- Protect the integrity and character of the cultural landscapes, including the spatial patterns of open versus wooded land.
- Protect, preserve and ensure the viability of the historic agricultural landscape, such as crops, orchards, and pasture lands.

Visitor Use and Experience

- Enhance public awareness and understanding of NPS resource management issues, policies, and mandates, especially as they pertain to deer management.
- Ensure visitors have the opportunity to view and experience the battlefield landscapes within their historic contexts.
- Ensure visitors have the opportunity to view deer in the natural environment at population levels that do not adversely impact visitors' enjoyment of other native species in the natural landscape.

Preliminary Alternative Strategies

Currently Under Consideration

Preliminary alternative strategies or options for managing deer at the battlefields are being **considered by the planning team at this time**. These may not be stand-alone alternatives, but components of alternatives that will be developed through additional analysis and considering input from the public. Any alternative selected must meet the project objectives to a large degree, while addressing purpose and need for action. The following strategies are under consideration:

- Reproductive control, including contraception/reproductive control of does, sterilization of does and bucks, and surgically altering bucks' ability to detect reproductive pheromones in does
- Large-scale exclosures in project areas
- Change land use and habitat strategies
- Displacement and hunting—drive deer to private property for hunting
- Aversive conditioning in selected areas (e.g., use of loud noises to scare deer)
- Controlled harvest program, which could include sharpshooting with firearms or with bow and arrow, possibly using staff, contractors, or volunteers, as well as capture and euthanasia in certain circumstances

Preliminarily Dismissed from Further Analysis

Several other options were considered by the planning team but were **preliminarily dismissed from further analysis** for the reasons listed in parentheses after each option. Public comment on these is also welcome. These include:

- Capture and relocation (issues with permits and quarantine, possible spread of disease, need for extremely high confidence that relocated deer are not infected with CWD, lack of areas to receive relocated deer, high rate of mortality)
- Fencing of crop fields (issues with high cost and cultural landscape goals)
- Widespread use of repellents (issues with effects on non-target wildlife, need for frequent applications, variable effectiveness, and unknown impacts to cultural and historic resources)
- Supplemental feeding (issues with NPS policy and Purpose and Need—might attract more deer)
- Fencing entire park(s) (issues with feasibility, high required maintenance, and effects on cultural landscapes)
- No additional action, but with enhanced research and monitoring (issues with continued high deer densities—would not meet Purpose and Need)
- Reintroduction/management of predators (coyotes, bears, wolves, mountain lions) as a management tool (issues with proven effectiveness and possible effects on surrounding residents)
- Poison/toxin introduction (issues with non-target species and availability of EPA-approved products)
- Managed hunt/public hunt (hunting is not sanctioned by Congress per NPS policies/regulations at all three parks)

How to Comment

There are several ways to provide input on the plan/EIS:

- Attend a public meeting.
- Submit comments electronically at: <http://parkplanning.nps.gov/battlefielddeerplan>.
- Submit written comments at your battlefield's visitor center or by mail to the following central address for this project:

National Park Service
Three Battlefields Deer Management Plan
c/o Ed Wenschhof
Antietam National Battlefield
P.O. Box 158
Sharpsburg, MD 21782

The comment period will end no earlier than July 01, 2011.

Please include your full name and address with the comments, so we may add you to our mailing list for future notices about this process. Since this plan/EIS will address three battlefields, be sure to note if your comments apply to a specific battlefield, and which battlefield(s) your comment is intended for.

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. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.



National Park Service
U.S. Department of the Interior

Antietam National Battlefield
P.O. Box 158
Sharpsburg, MD 21782

NEPA and Where We are in the Process

The NPS is preparing this plan/EIS in accordance with NEPA, which requires federal agencies to analyze impacts to the natural and human environment for any major federal actions, such as the development of this plan. The following highlights important steps in the NEPA process and an anticipated timeline:

March 2011	Notice of Intent to Prepare Management Plan/EIS
April 2011	Public Scoping Meeting *(We are here)
July 2011	Public Scoping Period Concludes
2011	NPS Reviews Public Scoping Comments and Gathers Data
2011/2012	Draft Plan/EIS Developed
Winter 2012	Draft Plan/EIS to Public for Review and Comment (60 days)/ Public Meetings on Draft Plan/EIS
2013-2014	NPS Prepares Final Plan/EIS and Makes Decision

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