



Update on the Chronic Wasting Disease Detection & Initial Response Plan/ Environmental Assessment

Introduction

Antietam and Monocacy National Battlefields (the battlefields) are preparing a Chronic Wasting Disease Detection & Initial Response Plan/Environmental Assessment (plan/EA). The plan/EA will outline a range of strategies for the detection of and initial response to chronic wasting disease (CWD) in white-tailed deer in the battlefields. At present, CWD has not been detected in the battlefields. However, the disease has been detected near the park units and may threaten park resources.

In early 2007 the National Park Service (NPS) asked for your input during scoping efforts associated with the plan/EA. Since that time the NPS has been developing a range of alternative approaches to CWD detection & initial response at the battlefields. The NPS is again seeking your input, this time by inviting you to comment on the draft alternatives. Please see inside this newsletter for a summary and information on how to comment. The battlefields will be holding public meetings on the alternatives on December 3 and 4, 2008. See page 7 for details on times and locations.

Chronic Wasting Disease Background

Chronic wasting disease is in a family of diseases known as transmissible spongiform encephalopathies, or TSEs. It is an infectious, contagious, and fatal neurological disease that affects white-tailed deer as well as mule deer, elk, and moose. Transmission of the disease likely occurs through direct paths such as physical contact and indirect paths such as environmental contamination.



Healthy white-tailed deer. Although not yet detected in Maryland, Chronic Wasting Disease represents a potential threat to deer populations at Antietam and Monocacy National Battlefields.

Clinical signs of CWD include weight loss, poor body condition, and a variety of abnormal behaviors. Chronic wasting disease brings with it the potential for long-term effects on deer populations and there is concern among both the public and scientific communities regarding CWD.

The disease was apparently isolated to the Western and Midwestern United States until 2005, when CWD was detected in New York, and later in West Virginia, within 60 miles of the battlefields.

Much is still unknown about how CWD spreads among its hosts and affects them, but its introduction and spread in white-tailed deer may be attributed to a range of risk factors. In the case of the battlefields, their proximity to known positive CWD cases represents a risk for disease introduction. The battlefields' relatively large white-tailed deer populations - Antietam averages 110 deer per square mile over its 3.01 square miles and Monocacy averages 155 deer per square mile over its 2.12 square miles - represent a risk for the introduction and amplification of CWD in battlefield deer.

Purpose of the Plan

The purpose of the plan/EA is to develop a range of strategies for the detection of and initial response to CWD in white-tailed deer at Antietam and Monocacy National Battlefields, since the disease has been detected near the park units and may threaten park resources.

Need for Action

A CWD detection and initial response plan is needed to address:

- The use of a range of CWD detection and initial response actions in consideration of detections in nearby geographic areas and their effect on the battlefields.
- Imminent or potential threats to park natural resources and components of the cultural landscapes, primarily white-tailed deer populations, from the establishment or spread of CWD.
- The desire to cooperate with appropriate state and federal resource management agencies, as well as other interested parties, regarding prevention, detection, research, and initial response actions for CWD.

Summary of Chronic Wasting Disease Detection & Initial Response Alternatives

Alternatives and the National Environmental Policy Act

Statements of purpose and need help define the problems that the NPS seeks to address through its planning process. Alternatives represent different ways to meet the purpose of and need for action. The National Environmental Policy Act (NEPA) requires federal agencies such as the NPS to examine a range of reasonable alternatives when considering actions that would impact the environment. The NPS is also required by NEPA to examine the “no action” alternative, which represents a continuation of current practices. Four draft alternatives for CWD detection and initial response at the battlefields - the “no action” alternative as well as three “action” alternatives - are presented below.

Alternative A: No Action (Current Activities Continued)

The battlefields do not presently have a formalized plan for CWD detection and initial response. However, the battlefields currently conduct two forms of CWD surveillance using a categorical exclusion under NEPA:

Opportunistic Surveillance – The testing of deer found dead in the battlefields due to factors such as disease, predators, and vehicle collisions.

Targeted Surveillance – The lethal removal and testing of deer that exhibit clinical signs consistent with CWD.

Under Alternative A, the battlefields would continue to conduct opportunistic and targeted surveillance for CWD.

Alternative B: CWD Detection and Reduction Response

Alternative B would offer the battlefields a set of options, or “tools,” for CWD detection and initial response. Detection activities, which would begin immediately, would be aimed at determining whether CWD is present in the battlefields and assisting the State in its detection efforts. Initial response activities would follow a positive CWD detection in or very near the battlefields. A distinguishing feature of Alternative B is that it includes the option of a one- time population reduction to bring deer density inside the battlefields to a density similar to surrounding areas. The purpose of this reduction would be to minimize the likelihood of CWD becoming established in the deer population. The implementation of detection and initial response tools would be based on the proximity of the nearest CWD detection to the battlefields.

Tools for Detection

Available detection tools under Alternative B would include:

Opportunistic Surveillance

Targeted Surveillance

Live Test for CWD – The live test for CWD requires anesthesia, conducting a tonsillar biopsy, and radio- collaring the animal so it can be tracked and culled if it tests positive for CWD. The live testing option would be available if animals were being collared in the park for other research projects.

Lethal Removal of Healthy- Appearing Deer for Detection Surveillance– This option would involve lethally removing and testing deer for the purposes of CWD detection. This option could be expected to result in the lethal removal of approximately 32- 110 deer per detection effort from Antietam and 36- 83 deer per detection effort at Monocacy. The exact number of removals per detection effort would depend on factors such as desired sampling confidence level and differences in deer density between the battlefields and surrounding areas. Annual removals at each battlefield would not exceed annual recruitment, which is the number of fawns that survive from birth to fall each year. However, only adult (greater than one year of age) deer would be targeted for removal.

Tools for Initial Response

Although the tools available for initial response are similar to those for detection, their purpose is different. Under Alternative B, initial response activities are aimed at assessing and monitoring the disease by estimating its prevalence and examining its distribution. In the case of the one- time population reduction option, activities are also aimed at minimizing the likelihood of CWD becoming established. Available initial response tools under Alternative B would include:

Opportunistic Surveillance

Targeted Surveillance

Live Test for CWD

Lethal Removal of Healthy- Appearing Deer for Monitoring Surveillance– This option would involve lethally removing and testing deer to assess and monitor CWD prevalence and distribution. The use of this option gives the battlefields the ability to estimate the disease’s prevalence with high confidence, understand its spatial distribution, and to more fully cooperate with the State in its assessment and monitoring efforts. This option would be expected to result in the lethal removal of approximately 32- 110 deer per surveillance effort at Antietam and 36- 83 deer per surveillance effort at Monocacy. The exact number of removals per surveillance effort would depend on factors such as desired sampling confidence level and differences in deer density between the battlefields and surrounding areas. Annual removals at each battlefield would not exceed annual recruitment, which is the number of fawns that survive from birth to fall each year.

Lethal Removal of Healthy- Appearing Deer for One- Time Population Reduction– This option would involve a one- time population reduction to bring deer density inside the battlefields to a density similar to surrounding areas with the purpose of minimizing the likelihood of CWD becoming established if it were found in the local area. This reduction would be expected to take place over approximately 1- 3 years and result in a reduction of 67- 88% of the deer population at Antietam and 80- 88% at Monocacy. At current deer densities, removals would be expected to range from approximately 212- 241 deer at Antietam and 252- 294 deer at Monocacy. At a density of 280 deer per square mile, which is eight times the density of

surrounding areas and used as a hypothetical “worst case” scenario for the future, removals could be expected to range from approximately 738- 976 deer at Antietam and 520- 687 deer at Monocacy. Actual removals would depend on differences in deer densities between the battlefields and surrounding areas at the time the reduction was conducted, the duration of the reduction effort, and natural population growth during the effort. Deer removed lethally would be tested for CWD to assess disease prevalence and distribution.

Alternative C: CWD Detection and Monitoring Response

Alternative C, like Alternative B, would offer the battlefields a set of tools for CWD detection and initial response. Detection activities, which would begin immediately, are aimed at determining whether CWD is present in the battlefields and assisting the State in its detection efforts. Initial response activities would follow a positive CWD detection in or very near the battlefields. A distinguishing feature of Alternative C is that the initial response does not include the option of a one- time population reduction. Under Alternative C, lethal removals during initial response would be more limited in nature. Like Alternative B, the implementation of detection and initial response tools would be based on the proximity of the nearest CWD detection to the battlefields.

Tools for CWD Detection

Available Detection tools under Alternative C would include:

Opportunistic Surveillance

Targeted Surveillance

Live Test For CWD (same details on use as under Alternative B)

Lethal Removal of Healthy- Appearing Deer for Detection Surveillance (same details on use and number of removals as under Alternative B)

Tools for CWD Initial Response

Although the tools available for initial response are similar to those for detection, their purpose is different. Under Alternative C, initial response activities are aimed at assessing and monitoring the disease by estimating its prevalence and examining its distribution. Available initial response tools under Alternative C would include:

Opportunistic Surveillance

Targeted Surveillance

Live Test for CWD

Lethal Removal of Healthy- Appearing Deer for Monitoring Surveillance– (same details on use and number of removals as under Alternative B)

Alternative D: CWD Detection and Natural Regulation Response

Alternative D, like Alternatives B and C, would offer the battlefields a set of tools for CWD detection. Detection activities, which would begin immediately, are aimed at determining whether CWD is present in the battlefields and assisting the State in its detection efforts. Like Alternatives B and C, the implementation of detection tools would be based on the proximity of the nearest CWD detection to the battlefields. However, under Alternative D, if CWD were detected in or very near the battlefields, the NPS would essentially allow CWD to “run its course” in the battlefields’ deer.

Tools for CWD Detection

Available Detection tools under Alternative D would include:

Opportunistic Surveillance

Targeted Surveillance

Live Test For CWD (same details on use as under Alternative B)

Lethal Removal of Healthy Appearing Animals for Detection Surveillance (same details on use and number of removals as under Alternative B)

Initial Response

Opportunistic and targeted surveillance would continue to be conducted to help assess the distribution of CWD. However, there would be no further activities constituting initial response.



Agricultural landscape at Antietam National Battlefield. Antietam and Monocacy both provide attractive deer habitat and support relatively large populations of white-tailed deer, creating a risk of CWD amplification in the event that the battlefields’ deer are exposed to the disease.

Photo by Ron Smith

Comparison of Chronic Wasting Disease Detection & Initial Response Alternatives

	Alternative A No Action (Current Activities Continued)	Alternative B CWD Detection and Reduction Response	Alternative C CWD Detection and Monitoring Response	Alternative D CWD Detection and Natural Regulation Response
Tools available for detection	-Opportunistic surveillance -Targeted surveillance	-Opportunistic surveillance -Targeted surveillance -Live test surveillance -Lethal removal for detection surveillance	-Opportunistic surveillance -Targeted surveillance -Live test surveillance -Lethal removal for detection surveillance	-Opportunistic surveillance -Targeted surveillance -Live test surveillance -Lethal removal for detection surveillance
Number of deer expected to be lethally removed during detection	Few - only those showing clinical signs	Antietam - 32-110 deer per disease detection effort; annual removals not to exceed annual recruitment Monocacy - 36-83 deer per disease detection effort; annual removals not to exceed annual recruitment	Antietam - 32-110 deer per disease detection effort; annual removals not to exceed annual recruitment Monocacy - 36-83 deer per disease detection effort; annual removals not to exceed annual recruitment	Antietam - 32-110 deer per disease detection effort; annual removals not to exceed annual recruitment Monocacy - 36-83 deer per disease detection effort; annual removals not to exceed annual recruitment
Tools available for initial response	None; however, opportunistic and targeted surveillance would con- tinue	-Opportunistic surveillance -Targeted surveillance -Live test and cull -Lethal removal for monitoring surveillance -Lethal removal for one-time population reduction	-Opportunistic surveillance -Targeted surveillance -Live test and cull -Lethal removal for monitoring surveillance	None; however, opportunistic and targeted surveillance would continue
Number of deer expected to be lethally removed during initial response	Few - only those showing clinical signs	Antietam - 67-88% of battlefield population over period of approxi- mately 1-3 years for population reduction and possibly 32-110 deer per monitoring surveillance effort in subsequent years Monocacy - 80-88% of battlefield population over period of approxi- mately 1-3 years for population reduction and possibly 36-83 deer per monitoring surveillance effort in subsequent years	Antietam - 32-110 deer per monitoring surveillance effort; annual removals not to exceed annual recruitment Monocacy - 36-83 deer per monitoring surveillance effort; annual removals not to exceed annual recruitment	Few - only those showing clinical signs
Coordination with State	Continue current coordination	Current coordination plus enhanced coordination to deter- mine battlefields' contributions to detection and monitoring surveil- lance efforts and to determine the target density of battlefields' one-time population reduction	Current coordination plus enhanced coordination to determine battlefields' contributions to detection and monitoring surveillance efforts	Current coordination plus enhanced coordination to determine battlefields' contributions to detection surveillance efforts

Your Participation & How to Comment

Because of your interest in Antietam and Monocacy National Battlefields, we are requesting your input on the draft alternatives for the Chronic Wasting Disease Detection & Initial Response Plan/EA. There are several ways to provide comments, including attending an upcoming public meeting or submitting comments in writing on the web or by mail.

After considering comments received on the draft alternatives, the NPS will finalize the draft alternatives and begin to analyze the impacts of the alternatives. There will be additional opportunity for comment after the impact analysis is complete and the plan/EA is released.

There are several ways to provide comments on the draft alternatives for the plan/EA:

- Attend a public meeting
- Submit comments electronically at <http://parkplanning.nps.gov/anti>
- Submit comments by mail to:
National Park Service
Environmental Quality Division
RE: CWD Detection & Initial Response Plan/EA
P.O. Box 25287
Denver, CO 80225

Before including your address, phone number, e-mail address, or other personal identifying information in your comments, please be aware that your entire comment, including your personal identifying information, may be made publically available at any time.

The comment period will be open until December 31, 2008.

Meeting Times & Locations

Public meetings will be held at the following times and locations:

Wednesday, December 3

6:00 pm—8:30 pm

Antietam National Battlefield Visitor Center

5831 Dunker Church Road

Sharpsburg, MD 21782

Thursday, December 4

6:00 pm—8:30 pm

The Gambrill House at Monocacy National Battlefield

4801 Urbana Pike

Frederick, Maryland 21704

Each meeting will begin with a short presentation by the NPS about the project background, draft alternatives, and planning process. The same information will be presented at both meetings. This will be followed by an open house, during which NPS staff will be on hand to visit with you, answer questions, and record your input. Attendees may also submit comments on written forms available at the meeting, on-line, or by mail as described in the “How to Comment” section above.