

1992 GYPSY MOTH SUPPRESSION PROJECT
FREDERICKSBURG & SPOTSYLVANIA NATIONAL MILITARY PARK
MID-ATLANTIC REGION
USDI NATIONAL PARK SERVICE

DECISION NOTICE AND FINDING OF NO SIGNIFICANT IMPACT

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INTRODUCTION

At the Fredericksburg & Spotsylvania National Military Park, biological monitoring has been conducted aggressively since 1982 when 50 male moths were trapped at Chancellorsville Battlefield. By using intensive monitoring and a variety of management tactics, such as mating disruption, burlap banding, and aerial and ground application of Bt, the Park has limited the spread and impact of the infestation.

The current survey, which was conducted in the fall of 1991 by the USDA Forest Service and Park personnel, found a slight increase in the population in the Chancellorsville and Wilderness Battlefields. Analysis of the egg mass data shows that moderate to heavy defoliation can be expected at Chancellorsville Visitor Center, Ellwood, and the junction of State Routes 613 & 621.

This Environmental Assessment (EA) documents a site-specific environmental analysis conducted by the USDI National Park Service for a gypsy moth suppression project in 1992.

The EA is tiered (40 CFR 1502;1508.28) to the USDA Forest Service's Final Environmental Impact Statement (FEIS) as Supplemented, 1985, the Addendum to the FEIS, and the Record of Decision (ROD) signed February 12, 1986. It includes a site-specific discussion of: (1) the purpose and need for action; (2) issues, concerns, and opportunities; (3) the alternatives; (4) affected environment; (5) environmental consequences of the alternatives, including the risks to human health; and (6) the specific procedures used to facilitate public participation in the decision making process. The USDI National Park Service proposes to treat the infested areas. The decision to be made is whether or not to implement the proposed project and, if so, by what means.

The Fredericksburg & Spotsylvania National Park is mandated to "... to preserve the present outline of the battlefields...". With this clear direction, a decision that supports intervention and control of anything adversely affecting forest health and vigor is required.

At the present time, parts of the Chancellorsville and Wilderness Battlefields are infested with gypsy moth. Over 300 acres have been identified as being in danger of defoliation if they are not treated in 1992.

The primary objective of the 1992 cooperative suppression project is to prevent tree mortality attributable to defoliation by the gypsy moth. To meet this objective, we must prevent noticeable defoliation (greater than 30%) as determined by optical bar photography and aerial survey conducted by the USFS. The defoliation that exceeds 30% will cause the tree to refoliate. Refoliation is one of the processes which causes the stress that ultimately leads to the death of the tree.

In addition to the prevention of defoliation, our objective is to reduce egg mass densities by 70% to below the threshold of 250 egg masses per acre. The project will be considered successful if retreatment in 1993 is necessary on less than 20% of the land that is to be treated in 1991.

ISSUES, CONCERNS, AND OPPORTUNITIES

Efforts by the park to solicit comments regarding the proposed project resulted in no issues, concerns, or opportunities being identified, even though several of the areas under consideration are close to residential areas (EA, p.3).

ALTERNATIVES CONSIDERED

The primary objective of the project is to prevent tree defoliation in excess of 30 percent. To achieve this goal, seven alternatives were developed. Three of these were eliminated from detailed study because they were not consistent with NPS policy, had adverse environmental impacts, or could not realistically meet the desired objectives. These are (EA, p.4).

1. Treat the 300 acres with a broad spectrum insecticide. The alternative was eliminated by National Park Service Policy.
2. Use of Integrated Pest Management techniques that do not require the use of a biocide agent, such as parasites, trapping, and pheromone confusion. This alternative was eliminated as ineffective against the high population level of the current infestation.
3. Treat the entire park, 7000 acres. This alternative was eliminated as excessive and unnecessary.
4. Use of viral insecticide Gypchek. Production shortages, problems with application technology and tank mix components limits its consideration for this project.

The following three alternative were considered in detail (EA, p. 4-5):

Alternative 1 No Action

In this alternative, No Action would be taken on the part of the Federal government to suppress gypsy moth populations on National Park Service property located in the Fredericksburg & Spotsylvania National Military Park in 1992.

This alternative is designed to allow natural forces to operate to control the gypsy moth. In addition, it will demonstrate the effects of not treating to suppress the gypsy moth. This alternative also represents the maximum response to those who oppose treatment of the gypsy moth with chemical insecticides.

Alternative 2 Two Applications of Bt

In this alternative the areas of the park that have an infestation of 250 egg masses per acre or more will be broken into distinct blocks. These blocks are: (1) the area surrounding Chancellorsville Visitor Center; (2) the eastern half of Slocum Drive; (3) Ellwood; (4) the junction of State Routes 613 & 621.

Blocks would be treated with Bt at a rate of 16 BIU per acre. A second spraying at the same rate would guarantee coverage should the first spraying fail due to unsuspected weather conditions or mechanical failure.

This alternative is designed to assure full application of the biocide while staying within the limits of prudent application to protect the environment and forests. It will also assure thorough coverage of the infested area and the efficient use of allotted helicopter time.

Alternative 3 One Application of BT

In this alternative, the areas of the park that have an infestation of 250 egg masses per acre or more will be broken into distinct blocks, limiting the acreage to be sprayed. The infested blocks would be sprayed with Bt at a rate of 16 BIU per acre.

It is also designed to assure prudence and care in the use of a biocide in the environment, while protecting the forest. One application of Bt gives less assurance of spray coverage, and the possibility of decreased foliage protection and increased populations are probable.

SELECTED ALTERNATIVE

Based upon the analysis documented in the EA, the FEIS and site-specific biological evaluations, it is our decision to implement Alternative #2. This will involve treatment of 300 acres of woodland with two applications of Bt in an IPM approach to suppress damaging gypsy moth populations in Fredericksburg & Spotsylvania National Military Park. This alternative is compatible with the selected alternative in the FEIS and ROD, in that these insecticidal applications are the only operational IPM component that will meet the objectives identified in the EA (p. 4).

RATIONALE FOR DECISION

The National Park Service is bound by the provisions of the National Environmental Policy Act of 1969 (NEPA), which requires environmental analysis of proposed major Federal actions that may significantly affect the quality of the human environment.

This Environmental Analysis has been tiered to the FEIS and documents the site-specific environmental analysis of the gypsy moth situation in Fredericksburg & Spotsylvania NMP. These requirements have been met by the FEIS and ROD, and the development of this site-specific EA. The selected alternative involves the use of an insecticide that is registered for suppressing gypsy moths and which will be applied according to label requirements. This meets the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act of 1947 (7 USC 136) as amended (FIFRA).

Our decision to implement Alternative #2 is based upon compliance with and the authority granted by the Federal laws and regulations previously described and with USDI National Park Service NEPA Guidelines (NPS-12). This project complies with the NPS policy to protect and preserve the historic and natural resources within parks in an effective and ecologically sound manner.

Our decision was made after consideration of the following factors:

Host Vegetation

Implementation of the decision will protect and maintain historically significant woodlots, wildlife, vegetation, and other natural values of the forest of the FRSP. The majority of the overstory vegetation is susceptible to gypsy moth caused defoliation and subsequent tree mortality. The proposed treatments will protect tree foliage and thereby meet the project objectives.

Geography

All of the treatment area is located in the Piedmont with parkland situated on gently rolling hills. Some forested wetlands occur in the treatment area. The use of Bt will have no adverse impact on aquatic organisms.

Human Health Risks

The use of Bt will pose no threat to human health. The public will be notified prior to the planned treatment so that unexpected exposure to Bt can be minimized (EA, p.11).

Non-target Organisms

Implementation of the project will not adversely affect any non-target plant or animal species with the exception of other Lepidopterous larvae that may be present at the time of treatment with Bt (EA, p.6).

Rare and Endangered Species

Implementation of this decision will not adversely affect any rare or endangered species.

MITIGATING MEASURES

The selected alternative incorporates the following mitigation measures in addition to those discussed in the FEIS:

1. All pilots will have topographic maps with clearly marked spray block boundaries. Spray blocks with difficult to observe boundaries will be marked with balloons before treatment. Monitoring with chase planes and ground personnel will ensure that only selected blocks will be treated.
2. Insecticide loading will be monitored by National Park Service employees.
3. Treatment dates will be publicized in the local media and shared specifically with area residents who asked to be notified. This will minimize human exposure to the insecticides.

FINDING OF NO SIGNIFICANT IMPACT

Following review of the FEIS and based on the site specific environmental analysis documented in this Environmental Assessment, we have determined that this decision does not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, a revised or amended environmental impact statement is not needed.

The finding of no significant impact was made considering the following factors:

- 1.The insecticides proposed for use are registered for that intended purpose by the Environmental Protection Agency;
- 2.Insecticide applications proposed at FRSP comply with EPA label directions, state and federal laws, and USDI National Park Service regulations;
- 3.The insecticide chosen affects only gypsy moth and other Lepidopterous larvae present in the park at the time of spraying;
- 4.No rare or endangered species that could be affected are known to occur in the proposed treatment blocks, and no significant impacts on native flora or fauna are expected from the proposed project;
- 5.Bt is extremely safe to use around humans and other mammals. The Virginia Department of Agriculture will also be using Bt on lands near the park and nearby heavily populated city, state, and private lands this spring;
- 6.The public involvement, public notification, and project monitoring procedures that will be followed and the mitigation measures that will be implemented during the project, will reduce the potential adverse environmental effects on areas treated and will minimize the risk of exposure to individuals visiting and residing in or near areas treated;
- 7.There are no apparent deleterious effects on the environment;
- 8.This project is within the scope of the FEIS and the decision announced in the Record of Decision.

Copies of this Decision Notice, EA and FEIS, along with project maps are available for public review at the following offices:

USDI National Park Service
Fredericksburg & Spotsylvania National Military Park
120 Chatham Lane
Fredericksburg, Virginia 22405

USDI National Park Service
Mid-Atlantic Region
143 South Third Street
Philadelphia, Pennsylvania 19106

Implementation of this decision may commence with the signing of this Decision Notice and FONSI by the Regional Office.

Maria Burks
Fredericksburg & Spotsylvania NMP
USDI National Park Service
120 Chatham Lane
Fredericksburg, Virginia 22405

Date

Charles Clapper, Acting Regional Director
Mid-Atlantic Region
USDI National Park Service
143 South Third Street
Philadelphia, Pennsylvania 19106

Date