

Fredericksburg and Spotsylvania National Military Park

Spotsylvania Court House Field Management Plan

Prepared by: _____
Natural Resources Manager, FRSP _____
Date

Reviewed by: _____
Chief Ranger, FRSP _____
Date

Chief Historian, FRSP _____
Date

Facilities Manager, FRSP _____
Date

Cultural Resources Manager, FRSP _____
Date

Maintenance Mechanic Foreman, FRSP _____
Date

Approved by: _____
Superintendent, FRSP _____
Date

I. Introduction

A. Overview

This Field Management Plan (FMP) is a strategic document that will define a program to manage the open fields within the core area of Spotsylvania Court House Battlefield in Fredericksburg and Spotsylvania National Military Park (FRSP).

The management of fields is an important aspect of park administration. Open field patterns have the ability to affect the aesthetic, cultural and natural values of a park. This is especially true in a park such as FRSP where the interpretation of its cultural landscapes is such an integral part of its mission. However, as a part of the National Park Service, this park must also preserve as much of its natural values and processes as possible.

FRSP staff currently devotes significant time and effort managing vegetation in various areas of the park to maintain visitor use areas, roadsides and cultural landscapes. Maintenance workers struggle to complete the mowing and trimming throughout these maintained areas. However, as park acreages increase along with resource constraints, priorities must be set, and these operations must be achieved at maximum efficiency. In addition, through the years, the environmental community and the National Park Service (NPS) have gained knowledge on the value of species diversity and ecological processes. The NPS mandate is to preserve these values wherever possible, and maintain its grounds in an environmentally protective manner.

This document will only be used to manage areas that are currently open (non-forested) areas, and will not consider, as part of this document, any reforestation or deforestation to restore the historic scene. Any of these actions will require another document with supporting documentation in the form of Cultural Landscape Reports or Inventories.

B. Achievement of Resource Management Objectives

The FMP is a component of the park's Resources Management Plan (RMP, 1999) and is designed to facilitate the achievement of the park's cultural and natural resource management objectives. These objectives are documented in the park's RMP, and are derived from the park's enabling legislation of February 14, 1927 (44 Stat. 1091), the General Management Plan (1986), and Statement for Management (1991).

C. Compliance

This document has undergone NEPA and NHPA compliance via an Environmental Assessment with the park's Fire Management Plan or categorical exclusions; and NHPA via programmatic agreements.

II. Policy, Goals and Objectives

A. Resource Management Goals

The park's resource management goals, as taken from the park's RMP are the driving force behind the park's management.

- Manage the natural resources of the park in a manner that complements the purpose of the park.
- Screen park resources from visual intrusions.
- Identify, evaluate, protect, maintain and interpret the park's cultural resources to preserve their original fabric and workmanship and, where necessary, stabilize and rehabilitate them in a manner consistent with legislative mandates and NPS policies.
- Create visitor appreciation for the historical environmental conditions and scenes on the battlefields, by removing or adding vegetation in areas of great historical significance and high interpretive value, to the extent possible, to duplicate as closely as possible the scene during the 1860s within the historic zone.
- Protect earthworks, road traces, and other battle-related features from damaging change caused by either natural or human forces, by selective vegetation management and limiting access to them.
- Identify and protect by appropriate means a resource base adequate for preservation, management, and public use of the battlefields and associated historic resources.

B. Field Management Objectives

Further interpretation of these guidelines and policies is found in FRSP's RMP, GMP, and other approved documents. Through this FMP the park will be able to utilize maintenance and prescribed burning as a tool for field management. The FMP provide a detailed action program that is consistent with NPS Management Policy and that will assist the park in its efforts to preserve, restore, maintain, and protect the cultural and natural landscape.

Specifically, the park's objectives for field management are as follows:

- Protect cultural and natural resources and intrinsic values from unacceptable impacts attributable to field management activities.
- Maintain open fields in an environmentally sensitive manner commensurate with the values at risk and with the least adverse impact to the park's cultural and natural resources.
- Conduct a field management program in a manner consistent with this plan and with applicable laws, regulation, and policies.
- Integrate field management with all other aspects of park management.
- Determine deficiencies in field management and develop priorities for corrective actions.
- Minimize maintenance costs.

Actions to be implemented through this FMP to meet the objectives of the GMP and the RMP are:

- The park will continue mowing and burning in a prescribed fashion to manage fields throughout the park.
- Field management will be used to promote the establishment of native grasses on earthworks and open fields, and to reduce woody vegetation thereby reducing the detrimental effects of mechanical mowing on wildlife and biological diversity.

III. Management Concerns

A. Cultural Landscapes

Maintenance patterns within these important features are generally governed by the Cultural Landscape Reports (CLR) associated with each individual park unit. At FRSP, these documents do not exist. Since these documents do not exist as of yet, but are planned for the future, this document will be based on current management and field openings to maintain the status quo.

In general, maintenance in Cultural landscapes should accomplish two things: It must recreate the vegetative patterns found historically at each site, and create viewsheds that enable visitors to view important sections of the landscape without obstructions. This, in turn, enables them to better visualize troop positions and movements and to fully understand the events leading to the outcome of each battle.

To further its interpretive goals, the park has recently started a regular series of military encampments to demonstrate various civil war lifestyles. These are also a factor in the maintenance of cultural landscapes because they often require maintenance of certain areas just before an event for logistical purposes such as parking and camping.

Historic earthen fortifications are one of the park's most valuable resources within its cultural landscapes and are intricately tied to vegetation management. Many sections of earthworks can be found under full forest cover, and thus little maintenance is required. In most cases, this means that the earthworks will be well protected from soil erosion due to the extensive root systems, thick leaf litter and overstory layers, and lack of human disturbance typically associated with a complete forest community. However, these earthworks cannot be viewed and appreciated by park visitors. The park tries to provide a balance between protecting these structures and providing for visitors understanding and appreciation. Therefore many of the park's earthworks are maintained so that they can be viewed by visitors.

B. Ecological Diversity

As described in the park's Resource Management Plan (1999), natural resource management compliments the park's focus on cultural resource management and is managed to allow the growth and diversity of native species, to curtail the spread of exotic (non-native) species, and to minimize maintenance expense.

Open landscapes are imperative in certain areas of the park to provide the appropriate visitor experience. These open landscapes also have the potential to provide habitat for a large diversity of native birds, mammals and insects. In Virginia, large patches of open grasslands have been reduced greatly in recent years due to urban sprawl. As a result, many bird species that depend on open grassland habitats for breeding have declined, making grassland habitats a top priority for conservation action. To achieve the maximum diversity, these grasslands must be relatively large (12 acres or more) and have a minimum perimeter to area ratio. They must consist primarily of native grasses, and require no more than annual maintenance, preferably biennial maintenance (ideally burning or bush hogging in late June or July).

C. General Management Patterns

The battlefield can presently be divided into five management regimes:

- 1) Natural areas
- 2) Managed forest
- 3) Mowable areas, Classes A, B, and C
- 4) Earthworks
- 5) Agricultural use areas.

1. Natural Areas

These areas presently consist of approximately 83% of the park's lands and are not maintained. They are predominately forested, although a portion of this management regime consists of non-forested, riparian wetland. These areas may have remained "natural" for a variety of reasons. For example, the historic scene may have consisted of a full forested or wetland type habitat, so these areas remained in this condition to preserve the cultural landscape. Second, there may be environmental concerns associated with disturbance in these areas, such as riparian areas and wetlands in need of appropriate wooded buffers, or erodeable soils in need of cover. Third, the park may lack the funding or cultural landscape knowledge in the form of a Cultural Landscape Report (CLR) to effectively convert them to more maintained management types. Fourth, these areas can and are used to screen visual intrusions from park neighbors and park structures.

In general, the forest is dominated by mixed hardwood species such as red maple, various oak species, hickory, sweet gum, tulip tree, and beech, with loblolly and virginia pine mixed in. Within these areas, natural species and processes will generally be allowed to function unimpeded and cultural and archeological resources will generally be untouched

by visitors. This creates an area of preservation for both natural and cultural resources. Vegetation management in these areas is generally limited to exotic species control.

2. Managed Forest

These areas are primarily found on or in front of earthen fortifications so that these structures are clearly visible to the public. They are also found along many forested roadsides to provide a safe view for traveling visitors, and within specific areas of the battlefield where an open forest landscape is required to achieve the appropriate cultural effect. Presently, these areas are typically cleared of all herbaceous vegetation, shrubs and regenerating trees once per year depending on the availability of staff and the amount of brush growth. This creates an “open forest” in which some trees remain to provide shade, create habitat and minimize erosion, however, views are somewhat opened. An example of this type of managed forest exists along Hill-Ewell Drive.

3. Mowed / Prescribed Burned Areas

This information is in addition to the park’s Defined Mowing Schedule for Park Grounds dated August 1991 and the park’s Fire Management Plan dated March 2010.

a. Mowing/bush-hogging field management

Mowed areas presently exist in visitor use areas (i.e. surrounding Visitor Centers and picnic areas, etc.), cultural landscapes, around park buildings and parking lots, and on roadsides and septic fields. They are further divided into three levels based on the appropriate and desired level of maintenance.

For example, certain mowed areas, such as those surrounding visitor centers, require a high level of maintenance (Class A). These are mowed frequently during the months of April through November to a grass height of 4 inches. However, areas cleared to restore the integrity and character of a cultural landscape, but not meant to provide a manicured area for visitor use require a lower standard of maintenance (Class C). These areas will be bush hogged once per year from late June to April, depending on availability of personnel and natural resource objectives to a height no shorter than 6 inches. This mowing regime would allow for the existence of ground nesting birds, small mammals and reptiles in these meadow habitats, as well as a native plant community. Some historic viewsheds, road shoulders, tour stops, and monuments require a second bush hogging each year in order to accommodate an interpretive exhibit (Class B). In this case, the first bush hogging will take place in March or April, and the second will take place in June or July. This way, the field is manicured when it needs to be, but provides good winter habitat for a diversity of species. Several other areas throughout the park, such as certain roadside areas and septic fields require one mowing per month between April and November (Class B).

In addition, an experimental approach to bush hogging in the fields, adjacent to earthworks (Class C) can be mowed twice or even three times during the growing season.

A swath, two bush hogs wide, going to and back to the starting point can be mowed, at the end of May, and again at the end of July. This two cut experiment will hit the woody plants twice in the growing season, once immediately after they have leafed out, and used most of their initial energy stores, and then the second time, to attempt to completely deplete their energy reserves – if there is time enough in the growing season, a third cut, in late August can be done to attempt to kill the woody plants. The relatively small size of this experimental cut will have a minimal impact on the wildlife of the area, as most of the area will not be impacted. If this method proves to work in a one-to-two year period, the park will continue this method through the rest of the fields – but, cutting no more than 20 percent of any field, so as to have a minimal impact on wildlife.

b. Prescribed fire field management

Areas that are currently managed with prescribed fire are all the fields within the core area of Spotsylvania Court House Battlefield. In the future, other open fields in the park may be managed with prescribed fire. For all of the fields that are being managed with fire, bush-hogging should only occur during the late summer, in mid to late July. This late summer field management will be coordinated with the vegetation monitoring provided by the Shenandoah Fire Effects Monitoring Team. Bush-hogging during this late summer time period has the most effect on woody species, and will do the most to control them in the open fields. Bush-hogging should occur on a biennial (every other year) basis rotating thorough all the fields. Half of the fields will be bush-hogged every year, with the other half of the fields being bush-hogged in the alternate year. This bush-hogging will be used to control the height of woody species, if burning is not controlling the woody species to an acceptable level. (See table A, Section IV)

c. Seeding mixtures

Areas to be maintained in Classes A or B can be seeded in approximately 50 lbs/acre a fine fescue mix consisting of 35% Hard fescue, 35% Red fescue, 15% Chewings fescue, and 15% annual ryegrass. Areas to be maintained in Class C and prescribed burning may also be seeded with this mix if native seed is not available. However, at least 20 lbs/acre of a warm and cool season native mix is most beneficial for these areas. A specific mix should be suited to the local environment, however such species as broomsedge, little bluestem, deer tongue, Virginia wildrye and purpletop are relatively short and should make up the majority of the mix. Taller natives such as Indian grass and big bluestem can be added in sparingly to increase diversity but not obscure the viewshed.

4. Earthworks

Maintained earthworks in the park follow two general maintenance regimes. As described above, many of the park's earthworks are in an open forest type vegetation cover. These earthworks are thought to be protected from erosion by the overstory and leaf litter of adjacent trees. They are trimmed (selective removal of understory trees and shrubs, and tall herbs) once a year depending on maintenance workload and availability of staff.

Hazard trees are intensively monitored and removed. Although, when leaf litter and adjacent tree cover becomes limited, the park can supplement with mulch and begin flagging trees to be allowed to grow.

Several of the park's earthworks are maintained in grass and require a more intensive maintenance regime. These areas are usually trimmed once a year. This type of vegetation can also be managed effectively by burning it every year or two in place of trimming. The park is currently experimenting with this type of management. At this time, the smaller, shorter earthworks (Upton Field, Harrison Field, McCoull Field, and the Bloody Angle – East Angle Earthworks, <24 inches) do not appear to be effected by prescribed burning, however, the taller earthworks – those along the native grass field, and the crescent field (across from each other) may suffer an unacceptable loss of soil due to erosion.

5. Agricultural Use Areas

Agricultural Use Areas are those areas under Special Use Permit to local farmers for agricultural purposes. They are addressed, in detail, in the park's Special Use Permitting document, which will be considered a supplement to this document.

IV. Scheduling and Locations

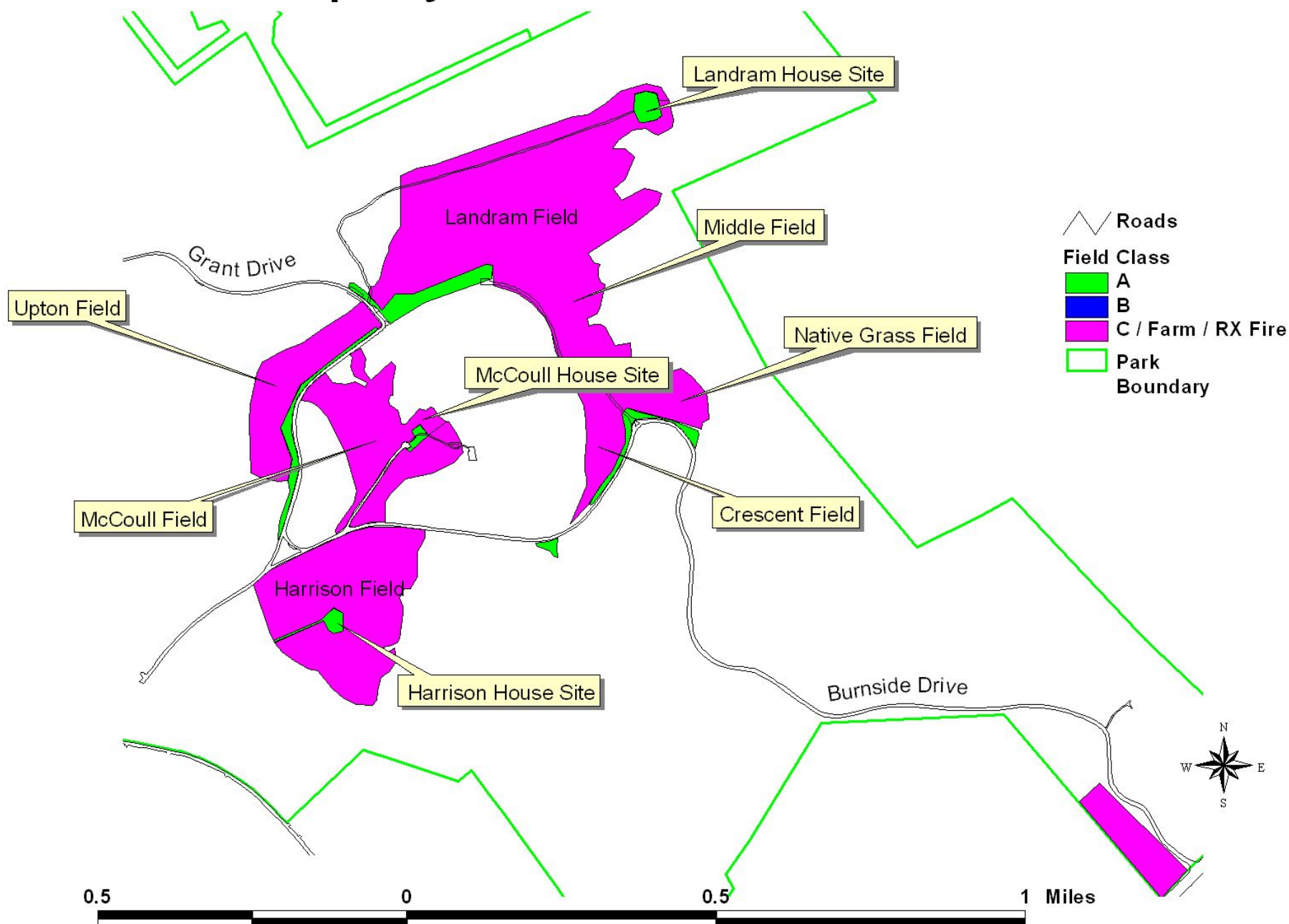
A. Six-Year Schedule

Tentative Cutting / Summer - Spring Prescribed Burning Schedule for 2011 - 2016						
	2011	2012	2013	2014	2015	2016
Upton Field	Summer RX	Bush - hog	Summer RX	Bush - hog	Spring RX	Bush - hog
Landram Field	Spring RX	Spring RX	Bush - hog	Spring RX	Bush - hog	Summer RX
Harrison Field	Summer RX	Bush - hog	Summer RX	Bush - hog	Spring RX	Bush - hog
McCoull Field	Spring RX	Spring RX	Bush - hog	Spring RX	Bush - hog	Summer RX
Middle Field	Spring RX	Spring RX	Bush - hog	Spring RX	Bush - hog	Summer RX
Crescent Field	Summer RX	Bush - hog	Summer RX	Bush - hog	Spring RX	Bush - hog
Native Grass Field	Spring RX	Spring RX	Bush - hog	Spring RX	Bush - hog	Summer RX

B. MAPS

These maps indicate how each field will be managed. They will be updated and redistributed as needed.

Spotsylvania Court House - East



Spotsylvania Court House - West

