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# United States Department of the Interior

NATIONAL PARK SERVICE

MID-ATLANTIC REGION

143 SOUTH THIRD STREET

PHILADELPHIA, PA. 19106

H22(MAR-MR)

## Memorandum

To: Superintendents, Mid-Atlantic Region

From: Regional Director, Mid-Atlantic Region

Subject: Cultural Landscape Management and Agricultural Programs

The enclosed discussion, developed by Regional Cultural and Natural Resource staff, is intended to give you direction and guidance in managing cultural landscapes and agricultural programs. It will be included as a chapter in a forthcoming Standard Operating Procedure on Special Park Uses.

Your comments are welcome and should be addressed to Regional Resource Management Specialist Kathy Jope (FTS/215 597-5372).

for James W. Coleman, Jr.

Enclosure

## AGRICULTURAL PROGRAMS

The concept of cultural landscape management has been evolving rapidly in the NPS during recent years. Since the passage of the National Historic Preservation Act of 1966, the NPS has struggled to fit this responsibility into the agency's existing organizational framework. Because cultural landscapes are living systems, dependent upon ecological processes, it is now clear that their management requires the collaborative effort of both Cultural and Natural Resource staff.

Cultural landscapes are landscapes managed to evoke a particular historical period or culture. A cultural landscape may be significant as the context in which a historic event occurred, or it may reflect the interrelationship between a particular culture and the land it inhabited.

Although the most obvious feature of a landscape is its vegetation, a cultural landscape consists of more than plants. A landscape is comprised of a number of critical elements, which must be identified and preserved. These critical elements comprising the landscape include:

- Structures, including buildings, fences, walls, ditches, and earthworks
- Roads and traces
- Fence lines
- Other elements of land-use pattern, such as field size
- Topography and terrain
- Lakes, streams, springs, and wetlands
- Vegetation structure, pattern, height, and texture, such as the interspersion of fields, orchards, woodlots, and woodlands

Landscapes in which historical events occurred were dynamic, living systems. Such a living system cannot, and should not, be frozen in time. For example, trees, which may have been used for fuel or building material, grew old, died, and were likely replaced, probably by other species. Streams overflowed their banks, and stream courses meandered. A landscape management program should provide for these changes to continue. Ecological principles must be incorporated into the management of cultural landscapes, providing for change while retaining their critical elements, if we are to effectively preserve them over the long term.

Vegetation in a cultural landscape should be managed to present the historic variety and dispersion of plant heights and textures. Except where they were significant to a historic event, retention of the exact original species and locations of plants usually has little relevance to an evaluation of integrity, nor is it usually an objective of management. Instead, integrity is influenced more by the collective condition of all of the landscape elements listed above as well as others that may be significant to a given park.

It is NPS policy that the primary objectives of resource management in cultural zones are to (1) **preserve** and (2) **foster appreciation of** cultural resources. Thus, a landscape management program should support cultural resource objectives and interpretive programs. Identification of the elements that are critical to a cultural landscape requires careful research examining historical accounts, historical photographs, drawings, maps, military records, tax records, newspaper advertisements, estate sales, modern aerial photographs, and other records, as well as data from archeological research, dendrochronology, and pollen analysis. A landscape report should be developed which details the buildings, earthworks, other structures, fencelines, roads, streams and drainageways, wetlands, vegetation structure and pattern, and other elements significant to the cultural landscape.

NPS agricultural programs also must be consistent with other laws and executive orders governing NPS management. Society has identified other values that are to be preserved in all parks, regardless of their specific management objectives. For example, federal agencies are charged with the protection of wetlands. Landscape management objectives should be modified to ensure the protection of wetlands, which are defined by the presence of one or more of the following factors:

- Hydric plants. However, these may not be present where vegetation has been altered by land use.
- Hydric soils, as indicated on soils maps.
- At least seasonal inundation or saturation, where the seasonally high water table is at the surface.

The presence of any federally or state-listed endangered, threatened, or rare species or important habitat for them should also be determined, and landscape management objectives should ensure that they are given protection. The U.S. Fish and Wildlife Service or the appropriate state agency should be consulted to ensure that these species are given adequate protection.

In addition, care should be taken to ensure that all aspects of an agricultural program are consistent with NPS Management Policies. Policies of particular relevance include the following:

Integrated pest management (IPM) procedures will be used to determine when to control pests and whether to use mechanical, physical, chemical, cultural, or biological means. Integrated pest management is the coordinated use of pest and

environmental information with available pest control methods to prevent unacceptable levels of pest damage by the most economical means **and** with the least possible hazard to people, property, and the environment. The choice to use a chemical pesticide will be based on a review by regional and Washington office coordinators of all other available options and a determination that these options are either not acceptable or not feasible; cost or staffing considerations alone will not be adequate justification for use of chemical control agents. (4:13-14)

**Human activities** will be managed to control erosion. (4:16)

Direct pollution by livestock under commercial grazing permits will be prevented by eliminating streamside or lakeside corrals and pastures and associated watering sites on natural waters wherever possible. (4:16)

Toxic substances, such as pesticides, ...will be managed to minimize the risk of water contamination. (4:16)

The management of cultural landscapes will recognize and protect significant historic, archeological, ethnographic, and design values. Treatment decisions will take into account both the natural and built features of the landscape and the dynamics inherent in natural processes and continued human and animal occupation. (5:6)

Cultural landscapes, like cultural resources, will not be "beautified" to suit modern aesthetic tastes through decorative plantings or other modifications not reflecting historic conditions. (5:6)

Appropriate vegetation will be maintained when necessary to prevent erosion of prehistoric and historic earthworks, even when the historic condition might have been bare earth. (5:9) [Refer to the MAR *Earthworks Landscape Management Manual* for detailed information concerning appropriate vegetation.]

Commercial grazing or stock driveways will be allowed only in those parks where ...they are **necessary** to maintain the historic scene. ...Grazing will be managed and conducted in accordance with standards and procedures designed to ensure that it does not result in significant damage to park resources. (8:14)

Because of the fragile nature of the resources involved, grazing in riparian zones will be discouraged. (8:15)

No facilities or range developments such as fences, corrals, or water developments, other than those authorized by law or approved for **NPS use** or concession use, will be allowed in parks to increase livestock numbers or to introduce livestock where they cannot otherwise exist. The National Park Service will not expend funds to construct or maintain commercial livestock facilities unless there is a direct benefit to the protection of park resources. (8:15)

NPS management policies generally focus on modifying human activities rather than "hardening" the resources. For example, there is no provision for installing drain tiles or other structures to drain wet areas. Instead, the agricultural practices should be modified to ensure protection of unstable slopes, erodible soils, wetlands, and other sensitive resources, and to prevent the initiation of destructive processes that are difficult to arrest.

Landscape management should be consistent with NPS-28, the Cultural Resource Management Guideline. Interpretation of cultural landscapes is essential to provide visitors with an understanding of the setting in which historical events occurred. Care must be taken to ensure that visitors are not given a false impression of the cultural landscape. Common examples of landscape elements that are likely to mislead visitors include meticulously mown turf, historic-appearing fences in non-historic locations, and very large agricultural fields. These should be avoided.

Several alternative approaches to vegetation management may provide the target mix of plant heights and textures. For example, a tall grass meadow and a wheat field may provide equivalent vegetation patterns. Similarly, mowing once every few years can provide better control of woody vegetation than does grazing by cows, while avoiding the erosion and other impacts introduced by grazing activity. Each alternative should be carefully analyzed in terms of its benefits such as protection of other landscape elements; erosion control; control of or resistance to insect, bird, mammal, and other pests; and cost of maintenance. In developing a landscape management program, alternatives should be fully explored and their effects thoroughly evaluated.

Recommended conditions of special use permits, integrating these considerations, are given on the following pages.

Above all, a park agricultural program and its implementation must be consistently in line with its fundamental purpose. As a component of cultural landscape management, the primary purpose of agriculture in a park is to help convey to visitors an accurate understanding of a former period while ensuring that the irreplaceable evidence of that period, which is temporarily in our care, is passed on unimpaired to the future.

## AGRICULTURAL PERMITS

### USE

Approximately \_\_\_\_\_ acres of cropland in \_\_\_\_\_ fields located on tract nos. \_\_\_\_\_ . In addition, \_\_\_\_\_ acres divided into \_\_\_\_\_ fields shall be maintained for wetland and riparian habitat protection and not used for agricultural purposes as specified in the attached plan.

### PURPOSE

Carrying out a land management program to perpetuate the cultural scene.

### CONDITIONS

#### **Purpose:**

The NPS has set forth conditions in this permit with the intention of protecting the environment, soils, and streams. These elements will take precedence over enhancing yields if such enhancement methods may cause any adverse effect to the resources.

#### **Crop Plan:**

Land designated for protection of wetland or riparian habitat shall not be used for agricultural purposes.

A crop plan for the coming year shall be prepared by the Permittee and submitted to the Superintendent in January for review and approval. The annual crop plan submitted by the Permittee, if approved by the Superintendent, will establish the farming procedures to be followed each year. The Permittee shall farm according to recommendations in the Soil and Water Conservation Plan developed by the Soil Conservation Service on the pages following.

A winter cover crop of wheat, rye, or residue of corn harvest, or other suitable vegetation shall be maintained on row-cropped land. Weather permitting, this shall be accomplished by November 1.

**Pest Management:**

All fields must be monitored for pest problems prior to application of any herbicide, insecticide, or other pesticide. Monitoring results must be presented to the Superintendent or his representative and pesticides must be approved before application. Any unauthorized use of any herbicide, insecticide, or other pesticide can be reason for revocation of this permit.

Accurate records will be kept of all pesticides applied, and a log of this use will be provided by the Permittee on a yearly basis due during the month of December.

Proposals for pesticide use for the coming year will be submitted in December. However, use will be approved based on monitoring results.

**Soil Treatment:**

All lands under this permit will be tested every two years by the Permittee, in conjunction with a scientific farm-consulting firm, to determine whether fertilizer or lime is needed. Copies of soil test results will be submitted to the Superintendent. Unless otherwise stipulated by the Superintendent, the Permittee shall purchase and apply such fertilizer and lime as recommended and specified. Permittee will contact the park office prior to fertilizing and/or liming. Lime and fertilizer shall be applied in accordance with modern accepted practices.

**Soil Conservation:**

All fields in annual crop production will be managed with conservation tillage methods (minimum tillage or no-till). Fields may be conventionally tilled one year in every five years of crop production in order to break up compacted soil layers, establish small grains and hay, or control weeds. All cultivation operations will be directed across the most prominent slope to aid in controlling water runoff and soil erosion.

Where long-term hay or grain crops are used, the fields will be rotated at the start of the subsequent five-year lease.

**Turn Row / Field Border:**

To protect areas adjacent to fields from erosion and runoff from the cropland, Permittee will install herbaceous field borders where shown on the Conservation Plan map. A 30-foot-wide border will be established by allowing native perennial vegetation to grow or by seeding with grass as approved by the Superintendent. Stand reestablishment will be carried out by the Permittee whenever the sod deteriorates to less than 60% cover.

**Filter Strips:**

A vegetation filter strip will be established 15 feet on either side of a centerline laid out by NPS personnel. Approximate centerlines are shown on the Conservation Plan map. Where adequate natural vegetation is available, it will be used for the filter strip. Seeding will use cool-season grass/legume mixtures common to the area, as approved by the Superintendent. New filter strips established by seeding need not be mowed until the next five-year permit.

New filter strip must be placed on the contour due to excessive slope of field nos. \_\_\_\_\_. Turn-rows may be adjusted accordingly.

Filter strips are to be protected from damage by farm equipment and traffic. Filter strips are not to be used as roadways. Filter strips are not to be damaged with chemicals or tillage implements. Damage caused by erosion or lack of seedling vigor is to be repaired by grading and shaping, as directed by the Superintendent, and by reseeding any area with less than 60% cover. These areas are to be mowed only as directed by the Superintendent.

**Woody Plant Control:**

All pastures, hay fields, fence lines, filter strips, turn rows, and field borders shall be mowed by the Permittee at least once every five years to keep the tract free of woody plant growth. The mowing schedule will be determined jointly by the Permittee and the Superintendent, and will occur during the driest season of the year but not during spring or early summer.

Grassy, herbaceous habitat will be maintained in field nos. \_\_\_\_\_ as indicated on map, by brushing and/or mowing once every five years. Designated fields are to be brushed and/or mowed between July 15 and October 1. Approximately \_\_\_\_\_ acres per year of brushing will be required, to total \_\_\_\_\_ acres over the 5-year permit period.

**Grazing / Pasturing:**

[Note: Because of the limited effectiveness of livestock in controlling woody plants, particularly when historically accurate numbers of livestock are used, as well as the difficulty of controlling their impacts to soil and herbaceous vegetation, the benefits of using livestock in cultural landscape management should be seriously weighed.]

No lands will be used for pasturing unless approved in advance by the Superintendent.

The maximum number of cows that may be grazed at one time is \_\_\_\_\_. All livestock are considered as mature animals at 8 months of age and are so counted in determining the number of stock that may be grazed.



Permittee is responsible for ensuring that livestock are excluded from streams, riparian areas, and wetlands.

Permittee is responsible for the maintenance of existing wire fences and corrals. Historic fence will be maintained by the Permittee, using materials provided by the park. Fence rows may be cleared of vegetation to facilitate maintenance.

Permittee agrees to clean barns annually of all spoiled or loose corn, grain, hay, straw, cornstalk, or other fodder. Barns, loafing sheds, holding pens, and corrals shall be cleaned of all manure no less than semi-annually.

Permittee agrees to comply with the floor load limits established by the Superintendent for the \_\_\_\_\_ barn and restrict baled hay to not closer than two feet from outside walls.

#### **Activity Reports:**

Permittee agrees to comply with the park's requirements for annual reporting of all farming activities and further agrees to attend an annual farmer's meeting at a place and time determined by the NPS.

#### **Equipment Storage:**

Unless a site is specifically designated by the Superintendent, no overnight storage of equipment will be permitted. The government assumes no liability for loss or damage to equipment due to improper storage, lack of protection from the elements, or any other cause whatsoever. Storage of equipment will only be allowed during periods of crop or hay harvesting.

#### **Compliance with Laws and Regulations:**

The Permittee shall comply with all applicable laws, ordinances, and regulations of the state, county, and municipality wherein the said premises are located, with regard to construction, sanitation licenses, or permits to do business, and all other matters.

Nothing in these conditions shall be construed to prevent the enforcement of the provisions of the regulations of the NPS or any other regulations applicable to park lands. Representatives of the Superintendent have authority to enter upon the land for the purpose enforcing conditions of this permit and to enforce laws and regulations applicable to the park.

**Natural and Cultural Resource Protection:**

All park regulations must be adhered to. The digging and/or removal of any historic relic or other object of antiquity is prohibited. Any object of antiquity unearthed or otherwise found must be left in place, protected, and immediately reported to the Superintendent or his representative so that it may be properly cared for and interpreted.

There shall be no disturbance of the surface of the land, except as reserved for agricultural purposes, including but not limited to filling, excavating, removing topsoil, sand, gravel, rocks or minerals, building roads, draining wet areas, or changing the topography of the land in any manner, nor shall any vegetation, including but not limited to brush and trees, be removed, except with the prior authorization of the Superintendent or as provided for in this permit.

**Sanitation:**

The Permittee shall not discharge waste or effluent from the permitted property in such a manner that such discharge will contaminate streams or other bodies of water or otherwise become a public nuisance.

The dumping of trash or other unsightly materials on the land or the keeping thereon of junked or wrecked vehicles, junked farm equipment, or similar items is prohibited. The Permittee shall dispose of brush and other refuse as directed by the Superintendent.

No sign, billboard, or advertisement shall be displayed or placed upon the land, except with permission of the Superintendent.

**Permittee Access:**

Access to tract no. \_\_\_\_ is via \_\_\_\_\_ Road. The use of any other access road or roads into the permit area must be approved in advance by the Superintendent or his representative.

Permittee will be issued a gate key for the main gate. Outside of normal park operating hours, the gate must be kept closed at all times, and care must be taken to ensure that unauthorized persons do not enter the park during closed hours. Duplication of the key is forbidden by law. A \$50 fee will be charged for a lost key.

**Public Use:**

Members of the general public are granted rights of access to these lands for recreational purposes. Public hunting and fishing are to be allowed on these lands. No building or gate will be locked or in any way barred from entry without prior approval of the Superintendent.

Permittee's use of the land is subject to the right of the NPS to establish trails, roads, and other improvements on or through said premises. Every effort will be made by the NPS to avoid undue interference with use of the land by the Permittee for the purpose intended under this permit.

**Prohibition of Other Uses:**

This permit is for agricultural use only. Recreational use of the land must be in accordance with applicable laws and regulations. No special tenant privileges relating to hunting, fishing, camping, or other recreation apply under the terms of this permit.

**Structures:**

Permittee is responsible for any damage to buildings or other structures as a direct result of the agricultural operation.

No building or other structure of any kind shall be temporarily or permanently constructed, reconstructed, erected, or moved onto the property, including but not limited to mobile homes. If an existing building is destroyed or damaged by fire, storm, casualty, or otherwise, it may be replaced, rebuilt, or substituted with another structure after approval of plans by the Superintendent, who will take into account what is customary on neighboring farms and the local community in determining whether the building will be reasonably harmonious with the scenic and historic character of the area.

**Fire Prevention:**

The Permittee and his employees shall take all reasonable precautions to prevent forest, brush, grass, and structural fires and also shall assist the Superintendent in extinguishing such fires in the vicinity of any tract which may be used hereunder.

All internal combustion engines shall be equipped with spark arresters or mufflers to prevent grass fire hazards.

Any electrical appliances in buildings must be operated so as not to overload any circuit. No additional utilities shall be installed without approval. No change in fuse load will be made. No gasoline, oil, or any highly flammable material will be stored within any building unless authorized in advance by the Superintendent.

All structural, forest, brush, or grass fires shall be reported immediately to the park Superintendent or his representative.

**Accident Reporting:**

All accidents shall be reported immediately to the park Superintendent or his representative.

**Set-Aside Programs:**

No lands covered under this Special Use Permit shall be placed in any state, federal, or local government programs such as Payment in Kind (PIK), soil bank, or any other set-aside programs without prior written approval of the Superintendent. Application by the Permittee for inclusion in such a program shall be justification for immediate revocation of this permit.

**Taxes:**

The Permittee agrees to pay all taxes and assessments that may for any and all purposes be payable, assessed, or imposed on said rights so reserved by the United States, or the State of New Jersey/Pennsylvania, and any political and municipal subdivision thereof. The Permittee will also be responsible for the payment of all services furnished by utilities.

**Assistance to NPS:**

With the permission of the Permittee and under such terms as are negotiated, the NPS periodically may use the Permittee's service, equipment, stock, or the premises to carry out its management or administrative purposes. Expenses associated with such use may be deducted from the established rental fee.

**Water Rights:**

Water rights will be perfected, when necessary, by the United States in its own name for water developed or used in connection with this permit. The Permittee will furnish to the United States such information as is necessary for perfection, including statutory fees, and for management and protection of the resource.

**Fee Adjustment:**

The rental fee will be reviewed annually and revised if necessary by applying the Producer Price Index.

**Termination, Revocation, or Modification:**

This permit may be terminated by the Permittee at any time by giving to the Secretary of the Interior, through the Superintendent, at least ten (10) days notice in writing provided that, in the case of such termination, no refund by the United States of any rental theretofore paid shall be made.

The Superintendent reserves the right to modify the terms of this permit after thirty (30) days written notice to the Permittee.

Upon breach of any provision of this permit or failure upon Permittee's part to conform to the laws of the United States, or any rules or regulations regarding the park, whether now in force or hereafter enacted or provided, the NPS may revoke the permit.

In the event that the permit expires, or is terminated for any reason prior to its expiration date, and if all charges due the Government herein have been paid, the Permittee shall remove all personal belongings within thirty (30) days. The Permittee shall, within sixty (60) days of the expiration or termination of this permit, remove all structures and improvements placed on the premises under this permit and shall restore the site to its former condition under the direction of the Superintendent. If the Permittee fails to remove all such structures and improvements within this period, they shall become the property of the United States, but that will not relieve the Permittee of liability for the cost of their removal and the restoration of the site.