

**PROJECT PLAN 3 AND ENVIRONMENTAL ASSESSMENT
FOR THE MEADOWOOD SPECIAL RECREATION MANAGEMENT AREA**

Log # ES920-2010-01

FINDING OF NO SIGNIFICANT IMPACT

Based on the analysis of potential environmental impacts contained in the attached environmental assessment, I have determined that impacts are not expected to be significant. Therefore, the preparation of an environmental impact statement is not required.

DECISION RECORD

It is my decision to approve the proposed action from Project Plan 3 and Environmental Assessment for The Meadowood Special Recreation Management Area (SRMA). The proposed action includes measures to protect the environment, and reduce any potential impacts to less than significant levels. Therefore, no further mitigation measures are necessary.

RATIONALE

Approval of the proposed action would provide for the safe and enjoyable public use of Meadowood SRMA. It would also provide for protection of natural and cultural resources in accordance with Federal, State, and local laws.

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APPROVED BY:

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Date

INTRODUCTION

This Environmental Assessment and Project Plan for the Bureau of Land Management (BLM) Meadowood Special Recreation Management Area (SRMA) analyzes the potential impacts of constructing a system of mountain bike/hiking trails on the west parcel of the Meadowood Special Recreation Management Area, which when fully constructed will total approximately five miles. The construction of these new trails helps meet the objectives of the Meadowood Farm Proposed Planning Analysis Environmental Assessment, November 2002 (PA/EA) and subsequent Integrated Activity Management Plan/Environmental Assessment, September 2004 (IAMP). Although these documents provided general guidance for the management direction the BLM should take with management and development of the property, analysis of detailed site-specific impacts was deferred to later, more detailed project plans. This document is the third of those project plans.

PURPOSE AND NEED FOR THE PROPOSED ACTION

Trails proposed for construction in this project plan will allow for a quality hiking and mountain biking experience in the West Parcel of the Meadowood SRMA. The IAMP contemplated using existing logging roads and illegally developed All Terrain Vehicle (ATV) trails for mountain biking and hiking. However, it soon became apparent to BLM staff in 2005 and 2006 as the West parcel was opened to the public that these trails were poorly laid out, causing erosion on steep hillsides and stream banks, and not long enough to create a worthwhile experience for hikers or mountain bike riders. A trail management plan prepared by professional trail contractor Trail Dynamics in 2006 recommended abandoning all of these routes and building new high quality trails.

CONFORMANCE WITH EXISTING PLANS

The proposed action is designed to conform to the PA/EA, providing for on-the-ground implementation of IAMP decisions made by the BLM to allow for public recreation and enjoyment of the natural resources of the property through trail based activities.

DESCRIPTION OF ALTERNATIVES

Proposed Action. This alternative would implement the decisions made in the November 2002 PA/EA Decision Record by developing non-motorized trail-based recreation, and providing enhanced opportunities for hikers and bikers to use the west parcel of the SRMA. The proposed action has two elements: the “Main Hiking/Biking Loop”, the “Advanced Biking Loop”. See Map 1 for the locations of these projects.

Main Hiking/Biking Loop The trail to be constructed would tie into the existing kiosk trail and create a continuous four foot wide loop trail about 3.5 miles long roughly circling the West parcel. This trail would have primarily a natural surface of compacted subsoil but would be surfaced with 4-6 inches of aggregate stone in sections with poor soils where the trail surface would not dry quickly after rain and snow. The trail in the proposed action is designed to follow the contours of the landscape as much as possible, and would be built with a cross slope of 3-8 percent to provide for drainage. This trail would be of moderate difficulty for hikers, with grades only exceeding 10% for short distances (less than 100 feet), and would be aimed at beginner and intermediate mountain bikers. Natural drainages would be kept open, either with wood bridges or armored stone crossings built at grade to allow water to flow over them.

In order to cross South Branch, a 160 foot long six foot wide elevated boardwalk would be constructed. This boardwalk would be supported by 6-8 inch diameter pressure treated wood posts set in concrete 30-36 inches in the

ground in 12 inch diameter holes. This boardwalk would be elevated 24-30 inches above ground, have a 42 inch high railing, and a platform sitting area with a bench in a shaded spot on the boardwalk.

Advanced Mt. Biking Loops

Two loops would be constructed with a dense network of 3-4 foot wide trails designed specifically for advanced mountain biking, with features such as banked turns, narrow log crossings, rip rap pavement, and steep climbing turns. These trails would have signage to discourage use by hikers and runners to prevent user conflicts. The loops would be accessible from the main hiking/biking loop, and their total distance is expected to be two miles.

The proposed action incorporates the following practices and guidelines.

1. BLM would protect all disturbed areas with a layer of straw or leaf mulch, and reseed where appropriate. To control the invasive species on the property, BLM would carry out early detection, mechanical control, replacement, and monitoring at every site of surface disturbance. BLM would reseed with native grasses, forbs, shrubs, and woody plants.
2. BLM would plan trails so that no healthy trees larger than 10 inches in diameter would be removed, no trail grades exceed 15%, and all trails are out sloped 3-8%. BLM would take all vegetation removed from trails and either mulch it or distribute it evenly on the forest floor at least 20 feet from the edge of the cleared trail corridor.
3. As stated in the Meadowood Activity Plan, all potential ground-disturbing activities (undertakings) must be considered under the authorities of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA). The entire trail alignment of the Main Hiking/Biking Loop in the proposed action was surveyed by contract archaeologists in the Fall of 2009, and the final report indicates that no conflicts with cultural resources were found, and that this project element will have no effect on cultural resources. When the alignments for the Advanced Biking Loops have been determined and flagged on the ground those alignments will be surveyed and adjusted as necessary within the zones indicated on Map 1 to avoid any affect on cultural resources.
4. The BLM would construct these trails beginning in the Fall of 2010 and over the next several years, using BLM personnel, contractors, volunteers, and partners as funds and staffing allow. Trail construction in Northern Virginia can take place throughout the year, but precipitation and temperature patterns can cause delays and setbacks, with freeze-thaw cycles in December - March creating the biggest constraints. Because of fairly even precipitation throughout the year, all construction activities must incorporate erosion control measures to protect surface water quality at all times of the year.
5. BLM would use the vegetation cleared at project sites either as onsite mulch for use in landscaping or for spreading onto forest floors to decompose. BLM would make every effort to remove invasive weeds from construction sites during this process. For trail construction, workers would use a combination of small mechanical equipment, such as mini-excavators, trail dozers, compact tractors, and hand labor.

No Action Alternative.

This would be a continuation of current management, and provides a baseline to which other alternatives can be compared. The Meadowood SRMA would continue operations; however, there would be no mountain biking trails developed in the west parcel, and part of the management plan for the site would not be implemented.

Other Alternatives Considered but Eliminated from Detailed Analysis.

The BLM considered and dropped from further analysis many alternative routes for several parts of the trail system, including the boardwalk crossing South Branch. The reasons for dropping these routes were various topographic and hydrologic constraints such as steep slopes and floodplains, proximity to known cultural sites, and the trail management objectives to maintain the existing hiking-only trails for hikers, and not mix horses and bikes on the same trails.

AFFECTED ENVIRONMENT

The affected environment for this proposal was more fully described in the 2002 PA/EA document. BLM determined that the following critical elements were not present or present and not affected by either alternative: Air Quality, Areas of Critical Environmental Concern, Prime or Unique Farmlands, Threatened and Endangered Species, Hazardous or Solid Waste, Wilderness, Environmental Justice, Native American Religious Concerns, and Coastal Zone.

The following critical elements are present within the area affected by the alternatives and could potentially be affected: Noxious and Invasive Weeds.

Vegetation

The proposed trails would run almost entirely through the forest interior, which consists of mature and mid-late seral stands of sweet gum, white oak, American holly, Virginia pine, beech, black locust, honey locust, mountain laurel, various species of maple, and other hardwoods common to Northern Virginia forests.

There are several annual plants which are thought to be uncommon in northern Virginia, including Pink ladies slipper *Cypripedium acaule* Ait. There is one federally listed Threatened plant species the Small whorled pagonia *Isotria medeoloides*, which could occur at Meadowood and has been found on other parts of Mason Neck and in Fairfax county. The BLM has contracted with the State of Virginia Heritage Program to conduct two surveys for the plant over the past four years, covering all possible habitat over the entire property. The last survey was completed in July of 2009, and no individuals of this species were found. Meadowood is considered poor habitat for the plant because of the overpopulation of deer, which have changed the overall composition of forest vegetation.

Wildlife

Deer, small mammals, amphibians, and birds are abundant within the Meadowood SRMA. Deer populations have grown considerably since BLM acquired the property. The Meadowood subpopulation of deer residing on Mason Neck are part of a population that is more than three times that of the objective deer population for the area, which is 15 deer per square mile, to protect habitat for other wildlife from overuse by deer.

Diversity (more than 30 species) and numbers of songbirds have increased since BLM acquired the property.

Cultural Resources

Beginning in 2004, the BLM entered into a cooperative agreement with the Fairfax County Park Authority Archaeology Program, to complete a comprehensive, Phase I, archaeological survey across the 800-acre BLM tract. The intensive field methods employed by the County Archaeology Program met or exceeded those prescribed by the Virginia Department of Historic Resources and the Secretary of the Interior. The proactive surveys identified several archaeological, historical, and cultural resources, and the survey team has filed all sites, forms, and data with the Virginia Department of Historic Resources. A project specific cultural resources survey was conducted on foot of the entire alignment of the proposed Main Hiking/Biking loop, and no cultural resources which would be affected by the project were found.

Noxious and Invasive Weeds

The BLM has identified the following invasive species within the areas of the proposed action: Japanese stiltgrass *Microstegium vimineum*, and Mile-a-minute *Polygonum perfoliatum*. Although there are numerous other invasive exotic plants on the property, these species have the greatest potential for increasing from disturbance in the project areas.

Water Quality

The perennial streams on the Meadowood SRMA fall within the Mill Branch watershed and the Kane Creek watershed. These watersheds are two of only three watersheds in the County that are designated for “Watershed Protection” - a designation given to only the healthiest watersheds which are found in areas with low development density and contain streams with healthy biological communities.

The western parcel of Meadowood drains into South Branch and Giles Run, which in turn drain into the Occoquan River. The proposed action would have negligible impact to receiving streams.

Visual Resources

The entire Meadowood SRMA is designated as a Visual Resource Management Class III area, which means that BLM should plan development to partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. The landscape within and surrounding the Meadowood SRMA consists of tree-lined residential and rural roads, hardwood forest, and open fields.

ENVIRONMENTAL IMPACTS

This section provides the evaluation of direct, indirect, and cumulative environmental impacts of the proposed action. Impacts might be to society, the economy, or the biological or physical environment. Any issues or concerns raised by BLM staff, other agencies, or the public are discussed below. This section also discusses any measures to mitigate the environmental impacts that resulted from those concerns. Finally, this section identifies any residual impacts to the environment, despite application of mitigation measures.

Vegetation

Proposed Action

Impacts

New trail development would clear mostly understory vegetation (including small trees and shrubs) and organic soils from a total of approximately 2 acres within forest habitat. Tree canopy cover would be maintained throughout the trail alignments by not cutting down any healthy trees over 10 inches in diameter. The trail alignment is designed to minimize proximity with stream banks, and channels through the construction of bridges and armored crossings, which allow water to flow under or over them. The boardwalk across South Branch will be elevated above the stream and floodplain for its entire 160 foot width, so that no part of the floodplain will be filled.

Mitigation

Disturbed areas will be seeded with native grasses and plants to stabilize soils and prevent erosion, while natural cover is established. If any populations of annual flowering plants are found during trail construction, every attempt will be made to work around them without disturbance to these plants.

No Action Alternative

Impacts

BLM would endeavor to keep Meadowood in its current state. BLM would continue to maintain trails by spraying to control invasive plants, hand-pruning vegetation to trail edges, and clearing saplings as they emerge along trail shoulders.

Wildlife

Proposed Action

Impacts

The construction of the trails might cause temporary displacement (during daylight hours when construction takes place) of wildlife in the immediate vicinity of project sites. At this time, there are no projected significant impacts to wildlife by construction or increased human use. BLM and partners would monitor the displacement of wildlife due to construction and subsequent visitor use.

Mitigation

BLM will avoid construction activities during the breeding season in the vicinity of known active dens or nest of species such as turkey, foxes, owls, or other animals.

No Action Alternative

Impacts

Current impacts to the affected environment and mitigation measures are identified in the Meadowood PA/EA November 2002 under the proposed action alternative (alternative 3). Existing trails and parking areas identified in the plan would have a similar temporary displacement of wildlife due to human use, however not due to the construction activities proposed here. There would be no significant impacts.

Cultural Resources

Proposed Action

Impacts

There would be a small possibility of damaging subsurface cultural resources during trail construction, based on the surveys already completed and the location of cultural sites identified by Fairfax county archaeologists working for the BLM. There would also be a possibility that visitors might find and disturb cultural artifacts on the ground along trails. Illegal artifact hunters might use metal detectors and excavate historic sites in order to find and steal artifacts. Because of the presence of BLM staff and the public onsite, and the difficulty of locating and excavating these artifacts, these impacts would not be significant.

No Action Alternative

Impacts

Current impacts to cultural resources and mitigation measures are identified in the Meadowood PA/EA November 2002 under the proposed action alternative (alternative 3). They would be essentially the same as for the proposed action, although on fewer trails. Over the past eight years that BLM has managed the property, there have been no cases or evidence of visitors disturbing cultural resources.

Invasive Exotic Species

Proposed Action

Impacts

Trail and trailhead development would create disturbances and corridors for invasive plant species recruitment, if reseeding is not carried out promptly. Invasive exotic species covering the disturbed soil would crowd out native plants and native plant diversity, and provide poor quality food and cover for wildlife.

Mitigation

By covering all disturbed areas soon after constructions with either straw or leaf mulch and reseeding with grasses as appropriate, spread of invasive plants beyond what's existing should be minimal. Post trail construction monitoring and, where appropriate treatment, will control the spread of invasive plants.

No Action Alternative

Current impacts to the affected environment and mitigation measures for Invasive Exotic Species are identified in the Meadowood PA/EA November 2002 under the proposed action alternative (alternative 3).

Visual Resources

No elements of the proposed action would result in more than minor changes in the existing landscape character, visible to trail users themselves on the trails and no contrast rating worksheets are required. The proposed actions would not be visible to drivers on adjoining roads, and will be minimally visible to adjacent residential land owners in the winter months when leaves have dropped.

Cumulative Impacts

Proposed Action

The zone of influence of this proposal is defined as the two watersheds covered by Meadowood. Surrounding land use is not expected to change from its rural/residential character because of current zoning, based on a lack of sewage treatment in the area, and the limited effectiveness of septic systems. The PA/EA calls for maintaining roughly the same developmental "footprint" at Meadowood in terms of vegetative cover. The PA/EA states that five acres of forest clearing needed for new trails and parking areas. The residual impacts of carrying out the proposed action are no loss of forest cover, and 2 acres of disturbance to forest understory plants and soils. Previously BLM approved clearing 1.7 acres of forest cover for the Mason Neck Wayside project in 2006, and .44 acres for the Hidden Pond trailhead in 2009. If the proposed action were implemented, the total amount of 2.14 acres cleared for public trails and trailheads would not change, and is still within the original target of the PA/EA.

Visitor use is expected to increase with the opening of the first bicycle trails at Meadowood. Based on current trail counter figures and estimating into the future, we estimate the use would double from 18 hikers per day to 36 hikers and bikers per day, which should not present any cumulative impacts on the trails. The bicycle trails will be served by 10 spaces of existing trailhead parking, at the West Meadows Access on Old Colchester Road and the Meadowood Trailhead on Belmont Boulevard. With the planned construction of the Wayside kiosk project adjacent to the Gunston Elementary School, an additional 10 spaces would be made available.

Over the next five years, BLM expects no significant cumulative impacts to water quality or any of the above resources from the proposed action.

No Action Alternative

Current impacts to the affected environment and mitigation measures are identified in the Meadowood PA/EA November 2002 under the proposed action (Alternative 3). There would be no residual impact from the disturbing 2 acres of forest soil and understory. Use has remained steady at 15-18 users per day over the past several years, and probably would continue at that level with no changes to the property

COORDINATION AND CONSULTATION

Below is a list of consultation and coordination activities carried out by BLM Lower Potomac Field Station (LPFS) staff:

September 15, 2009 BLM LPFS meeting room: LPFS staff briefed members of the Friends of Meadowood and the Mason Neck Community Association on the proposed action, and asked for comments. Response to the new trail construction was favorable, although several people inquired about the impacts to annual plants on the forest floor.

November 17, 2009 BLM LPFS meeting room: LPFS staff held a public project plan scoping meeting. 7 members of the public attended, and while supporting the trail concept, some expressed a need to make all the trails at Meadowood full multiuse trails which would be open to hikers, equestrians, and bicyclists.

March 20, 2010. Public Flagline walk: Five people participated in a walk of approximately ½ of the proposed main hiking biking trail alignment. People overall liked the new trail alignment, but thought the connector to the trailhead on Belmont Boulevard could be built in a later phase of the project.

LIST OF PREPARERS

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