



# Decision Notice and Finding of No Significant Impact

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United States  
Department of  
Agriculture

## Cave Run Nonmotorized Trails Project

Forest  
Service

Southern  
Region

Daniel Boone  
National Forest

September  
2013

**Cumberland Ranger District, Daniel Boone National Forest  
Bath, Rowan, and Menifee Counties, Kentucky**

For Information Contact:  
District Ranger Dave Manner  
Cumberland Ranger District  
Daniel Boone National Forest  
2375 KY-801 South  
Morehead, KY 40351  
606-784-6428  
<http://www.fs.usda.gov/dbnf/>

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# Introduction

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The environmental assessment (EA) for the Cave Run Nonmotorized Trails Project has been prepared pursuant to the National Environmental Policy Act (NEPA, 40 CFR 1500-1508 and 36 CFR 220), the National Forest Management Act (36 CFR 219), and the 2004 Land and Resource Management Plan for the Daniel Boone National Forest (Forest Plan). The project area is located on the Cumberland Ranger District around Cave Run Lake in Bath, Rowan, and Menifee Counties, Kentucky, about 7 miles southwest of the city of Morehead. The project area is approximately 75,640 acres in size. This includes 52,500 acres of national forest land, and 23,140 acres of land in other ownerships. There are approximately 75 miles of existing Forest Service maintained trails on national forest land within the project area. These miles include about 25 miles of the Sheltoewe Trace National Recreation Trail.

This Decision Notice and Finding of No Significant Impact include background information and a statement of the decision made, including the rationale. It also contains a synopsis of alternatives considered and a review of laws, policies and requirements pertinent to the decision. The Cave Run Nonmotorized Trails Project EA and associated specialist reports (incorporated by reference) present a thorough analysis of a broad range of alternatives considered in the selection of a proposal to designate, construct, and maintain a trail system for non-motorized uses. The EA documents the analysis of the “no action” alternative and three action alternatives, designed to meet the purpose and need for the project.

## **Background**

The amount and types of recreational trail uses have changed in the Cave Run Nonmotorized Trails project area (project area) over the past twenty years. Trails that were developed for and used primarily by hikers have received considerable increased use by equestrians and mountain bikers. Additionally, a network of “unplanned” trails in the project area, that were not constructed, but rather developed through use, are widely used by recreationists. Trails within the project area are rutted and deteriorated. These conditions have created a less-than desirable recreation experience for many trail users. The Cave Run trail system faces many challenges that are common to eastern forest trail systems. Factors such as complex geology, highly erodible soils, year-round precipitation and mixed land ownership render many areas unsuitable locations for trail systems.

During this trail planning process I encouraged the public to become involved in helping us identify solutions and future management actions. I greatly appreciate your thoughts, ideas and suggestions that have been contributed throughout the progression of the planning process. Some comments expressed a desire to “leave things the way they are” and not change current management out of the concern for the loss of trail miles and critical routes. Other comments advocated the designation of separate trail systems for individual non-motorized uses in order to facilitate diverging trail user objectives. Still others supported a combination of shared and separated trail use.

This decision is a first step toward improving the quality of the trail users experience and minimizing environmental impacts by designating a system of trails for each type of use. Designating trail uses allows future maintenance activities and improvements to be designed according to the needs of the designated trail use. Implementing this project will be an ongoing process and will take many years to achieve the desired trail system.

## **Purpose and Need**

An assessment of project area trails and resources (Keen et al. 2011) provided an existing condition of the trails and the management situation. Through project scoping and other public participation avenues, we established the trail attributes considered fundamental to the desired experience of project area trail users. We compared these conditions and attributes to Forest Plan goals, objectives and standards, applicable laws, and current policies. Where we found differences between existing conditions and forest goals and standards and user desires, we identified a need for change and subsequent project objectives.

These objectives include:

- Provide a non-motorized trail system to address recreation demand and benefit local communities and the public.
- Provide an enjoyable non-motorized trail user experience through appropriate trail use designation.
- Provide a non-motorized network of trails capable of sustaining the designated use.
- Reduce impacts to aquatic and riparian habitat, rare communities, threatened, endangered and sensitive species, cultural resources, and recreation and aesthetic values.
- Provide adequate trail head parking accommodations.
- Provide trail loops of various lengths and experience levels.
- Provide easily accessible and understandable information to trail users describing use, availability, accommodations, etiquette, and natural and heritage resources.
- Engage the public in cooperative, collaborative efforts that build support in helping to meet the Forest's desired future condition and the public's desired experience.

## Decision

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After thorough review of Tribal, cooperator, agency and public comments, and analysis in the Cave Run Nonmotorized Trails Project Environmental Assessment (EA), I have decided to implement Alternative 3, as described in the EA. A key feature of Alternative 3 is a separation of equestrian and mountain bike trails. Table 1 below and Figure 1 (Appendix A) illustrate the decisions made on each trail. In the remainder of this Decision Notice, my decision is referred to as the Selected Alternative.

The Selected Alternative is a combination of actions necessary to reduce environmental effects while providing trail opportunities for a diversity of users. The selected 91-mile trail system will provide equestrians, mountain bikers and hikers with access to popular destinations, loop-trail opportunities, trailheads and parking areas. In addition, 28 miles of administrative roads that are permanently or seasonally closed to public vehicles will augment the trail system by creating additional riding opportunities and connecting additional trail loops.

Throughout this process, the term “user conflict” has often been used to describe a perceived conflict between equestrians and mountain bike riders in this area. Through many conversations with individuals and groups concerned with the use of this area, I no longer believe this term accurately represents the reality of the situation. I have repeatedly heard comments such as “I’ve never had a conflict with a mountain biker,” or “I’ve never had a bad experience with a horseback rider.”

I believe what has actually occurred is a “use conflict.” In other words, equestrian use of a trail often renders that trail undesirable to mountain bikers, either through hoof marks in boggy soils or horse manure on the trail. Mountain bike impacts on trail tread do not appear to have a similar impact on horse use, although a speedy mountain biker coming around a corner can cause safety problems for all concerned.

This realization was an important factor in my decision to provide separate equestrian and mountain bike trails. A large portion of the area west and south of Cave Run Lake, including the Caney Loop Trail and Murder Branch, will be designated for horse and hike use only. To accommodate mountain bike use, a portion of the area west of Cave Run Lake will be designated for mountain bike and hike use only. In addition, the decision authorizes new mountain bike loop trails connecting to the Big Limestone and Sheltoewe Trace trails in the area north of Cave Run Lake as well as in the Clay Lick area.

In addition to selecting Alternative 3, I have decided that within the Cave Run Nonmotorized Trails project area, horse use will be allowed only on trails designated for horse use. A Forest Supervisor's Order will be implemented to prohibit non-designated uses on individual trails, to implement seasonal closures on equestrian trails, and to prohibit the possession or use of horses and pack animals in the project area except on designated trails (Appendix C).

### The Designated Trail System

Table 1 and Figure 1 illustrate the uses that are designated for each existing trail as well as new trails that are designated in this decision. Hiking is a designated use for all trails. With the exception of about one mile of NFS Road 1056, horse/hiking and bike/hiking trail systems are completely independent of one another.

**Table 1. Designated Use for Trails Included in the Cave Run non-motorized trail system.**

Trail	Trail Name and Segment	Designated Use
100	Sheltowee Trace -- US 60 to KY-801	Bike/Hike
100	Sheltowee Trace -- KY-826 to NFS Road 906A	Horse/Hike
100	Sheltowee Trace -- NFS Road 906A to KY-1274	Hike
109	Big Limestone Trail	Bike/Hike
122	Lakeview Ridge	Bike/Hike
1226	Caney Trail	Horse/Hike
115	White Sulphur Trail and Loop	Horse/Hike
115-A	White Sulphur connector – Trail 115 to Sheltowee Trace	Horse/Hike
113	Buckskin – Sheltowee Trace to new loop trail connecting back to Sheltowee Trace (west side of Trough Lick Branch)	Horse/Hike
113	Buckskin – New loop trail on west side of Trough Lick Branch to Trail 112A	Permanently Closed
113	Buckskin – Trail 112A to Buckskin trailhead	Bike/Hike
113B	Buckskin – Buckskin trailhead to Zilpo Recreation Area	Bike/Hike
112	Cave Run – Trail 113 to Trail 108	Bike/Hike
108	Connector Trail – Connects Trail 112 to Trail 113	Bike/Hike
106	Hog Pen – Trail 113 on west side of Trough Lick Branch to Trail 112	Permanently Closed
106	Hog Pen – Trail 112 to Trail 113	Bike/Hike
107	Cross Over Trail – Trail 112 to NFS Road 918 - relocated to NFS Road 1225	Permanently Closed
107	Cross Over Trail – Road 918 to Trail 118 - relocated	Bike/Hike Relocated
104	Tater Knob Trail – Trail 112 to NFS Road 1056	Bike/Hike
118	Buck Creek – NFS Road 918A to NFS Road 129	Horse/Hike
116	Cave Run Lake (Chestnut Cliffs Trail) – NFS Road 1056 to Trail 116A at NFS Road 1290	Horse/Hike
116-A	Leatherwood Loop – Trail 116	Horse/Hike
103	Clear Creek Trail – Clear Creek Lake parking lot loop	Hike only

Trail	Trail Name and Segment	Designated Use
Designation of existing unauthorized trails		
	Murder Branch Trail – County 930 to NFS Road 1074b	Horse/Hike
	Glady Connector – NFS Road 1053 to NFS Road 914	Horse/Hike
	Gate Post – NFS Road 909 to Glady Connector	Horse/Hike
	Caney Road extension – NFS Road 1062 to Sheltopee Trace (Trail 100)	Horse/Hike
New Construction		
	Scott’s Creek Ridges – ridge loops connecting to Big Limestone Trail (Trail 109)	Bike/Hike
	Clay Lick Loops – NFS Road 968 and back	Bike /Hike
	White Sulphur South loop – White Sulphur Trail (Trail 115 and back	Horse/Hike

**Implementation Priorities**

The decision will be implemented over several years. Initially, trails will be designated for specific uses. Trail and trailhead signs will be installed, and maps and web page information will be updated. During the second phase of implementation, seasonal and cross-country horse travel will be restricted to minimize impacts and reduce maintenance. Implementation of the remainder of this decision is dependent on the availability of funding and volunteer resources over time.

During the public involvement phase of analysis, many comments indicated a strong interest from individuals and clubs to help maintain and provide a quality trail system. Therefore, we will seek to develop collaborative opportunities for the public to become engaged in implementation of this decision. Some priorities are defined in this decision document. The Forest will work in partnership with trail users to further establish priorities for improvements, construction, maintenance, monitoring, and funding sources.

**Trail Signage and Information**

Trail signs will be installed and updated to meet agency guidelines for trail signage. This will improve navigation, recreational choices, and risk management for trail users.

**Trail Construction and Improvement**

New trails in the Cave Run trail system will be constructed following national design parameters for the specified use and trail improvements will bring existing trails up to national standards. These parameters outline criteria related to trail clearing limits, width, tread, surface type, grade, cross-slope, and turn radius. We will improve existing system trails to facilitate water management, to reduce impacts from recreation use, and to maintain a desirable recreation experience. Existing trails that are being relocated will not be closed until the relocation is completed.

**Seasonal Trail Closures**

To minimize impacts to soil and water quality while providing for continuity of trail use opportunities, seasonal equestrian trail closures will be implemented through a Forest Supervisor’s Order. When implemented, horse use will be prohibited on the designated trail system within the project area from December 15 until May 15 until any such trails are improved and/or maintained to meet minimum approved agency design standards. The ten miles of

trail identified in Figure 2 are considered the highest priority for improvement to minimum standards for year round use. Nine miles of gated roads identified in Figure 2 will remain open to year round use.

***Road Closures to Horses or Bikes***

The following forest system roads (or gated portions), used to complete horse and hiking loops, will be closed to bike use: 906, 908, 909, 912, 914, 915, 1053, 1054, 1056, 1062, and 1074 (Figure 1).

The following forest system roads (or gated portions), used to create bike and hiking loops, will be closed to horse use: 1225, and 1288 (Figure 1).

Forest Supervisor's Orders will be issued to implement the closure of the roads to these specific uses.

***Murder Branch Trail System***

The 5.6 miles of unauthorized user-created trail in the Murder Branch area will not be designated until archeological surveys to identify historic properties are completed in accordance with 36CFR 800.4(b) (2) as specified in the stipulations laid out in the Memorandum of Agreement between the Daniel Boone National Forest and the Kentucky State Preservation Officer for the Cave Run Nonmotorized Trails Project (Kentucky SHPO 2013).

The following actions will be implemented in the Murder Branch area. The actions are listed in order of priority for implementation.

- Complete archaeological surveys of the Murder Branch Trail identified for designation in Table 1 and Figure 1.
- If archaeological clearance is obtained, designate the trails according to the uses specified in Table 1 and Figure 1.
- Rehabilitate existing user created trails within 200 feet of the Murder Branch Cave once project area closures are in effect.
- Install a cave gate at the entrance of Murder Branch cave.
- Construct a trailhead on County Road 930 at the beginning of the horse trail to accommodate pull-through traffic for five to eight truck/trailer combinations.

***Horse Resting Areas***

A horse resting area will be constructed on FR 906 for equestrian access to view the arch on the Sheltopee Trace (Trail 100) as resources become available. In addition, eight existing horse resting areas will be reconstructed, or rehabilitated and relocated where existing locations are too degraded to recover adequately with continued use (Figure 1). New and existing rest areas will be confined to one-half acre in size and will include permanent hitching facilities.

***Trailhead and Parking Area Designation/Improvement and/or Construction***

The Selected Alternative includes the construction of three trailhead parking areas, improvement of the Gladly trailhead, and trailhead designation of an existing parking lot (Figure 1).

Parking areas will be constructed to access new trails at Clay Lick, existing and new trails northeast of Cave Run Lake off of FR 964, and the Murder Branch area trails (Figure 1) as resources become available. These lots will accommodate four to eight vehicles, meet minimum agency design requirements, and include no additional amenities. The Gladly trailhead will be improved by adding a new overflow parking area to the existing parking lot to accommodate up to eight to ten additional truck/trailer combinations. The Tater Knob fire tower parking area will also be designated for trail parking to access the biking trail system around the Tater Knob fire tower.

**Special Use Trails**

Special use permits are required for trail access to private businesses that are connected to the trail system (Figure 1). Private business owners are required to apply for and/or keep current a special use permit if they desire a connection to the Cave Run trail system. Permits may be approved contingent on required surveys and proper analysis and documentation.

**Trail Closure and Relocation**

Portions of Trails 106, 107, and 113 will be permanently closed (Figure 1). Closed trails will be restored to natural conditions through a combination of re-establishing natural hydrologic patterns, controlling sedimentation to streams, returning natural grades, and regrowth of natural vegetation. Our restoration methods could include disking compacted soils and planting approved, native vegetation on the sites. This will reduce harmful effects to water resources in the project area. Existing system trails being relocated will not be closed and restored until the relocated trail is constructed.

**Restoration of Closed and Non-Designated Trails, Paths, and Rest Areas**

There is no inventory of the non-system, user-created paths within the project area. Non-system paths that are not designated into the trail system will be closed and restored to natural conditions. Prioritization for path restoration will first consider areas where there is resource damage, and areas where non-designated segments intersect with designated trails.

**Design Features Associated with the Selected Alternative**

Project design features will be implemented to avoid, minimize, or eliminate adverse impacts that might result from implementation of the Selected Alternative. Project design features are a part of the Selected Alternative. Analysis of effects presented in the Environmental Consequences section of the EA is based on the implementation of these features.

**Table 2. Project design features and best management practices applied to the Cave Run Nonmotorized Trails Project**

Design Feature	Cave Run Nonmotorized Trails Project Design Feature
H	<b>Heritage Resources</b>
H-1	The Forest will ensure that archaeological surveys to identify historic properties are completed in accordance with 36CFR 800.4(b)(2) and the Memorandum of Agreement between Kentucky State Historic Preservation Office (SHPO) and Daniel Boone National Forest (Kentucky SHPO 2013) prior to the implementation of the various parts of the project.
WL	<b>Wildlife and Botanical Resources</b>
WL-1	Recreational activities inside caves will not be promoted except for designated recreational caves. Public information on location and access to non-recreational caves will be limited. (DB-REC-1)
WL-2	No tree cutting will occur within 2.5 miles of any Indiana bat maternity colony from May 1 through August 15. (DB-WLF-8)
WL-3	Suitable Indiana bat roost trees more than five miles from significant Indiana bat hibernaculum may only be felled from October 15 through March 31. If tree removal occurs at other times, the trees must be evaluated for current Indiana bat use, according to the U.S. Fish and Wildlife Service (USFWS) protocol. (DB-WLF-9)
WL-4	Suitable Indiana bat roost trees within five miles of a significant Indiana bat hibernaculum may only be felled from November 16 through March 15. If removal occurs at other times, the trees must be evaluated for current Indiana bat use, according to the USFWS protocol. (DB-WLF-10)
WL-5	No trees may be cut within five miles of known significant Indiana bat hibernacula between September 1 and December 1. (DB-WLF-12)
WL-6	Hazard trees (dead or alive) considered to be an immediate threat to human safety may be removed at any time. This supersedes all other standards. (DB-VEG-1)

Design Feature	Cave Run Nonmotorized Trails Project Design Feature
WL-7	Where caves exist outside Cliffline Community Prescription Area a minimum zone of 200 feet is to be maintained around openings to caves and mines suitable for supporting cave-associated species, as well as any associated sinkholes and cave collapse areas, except for designated recreational caves. Prohibited activities within this protective area include use of motorized wheeled or tracked equipment (except on existing roads and trails), mechanical site preparation, recreation site construction, tractor-constructed fire lines for prescribed fire, herbicide application, and construction of new roads, skid trails, or log landings. Vegetation in this buffer zone may be managed only to improve habitat for PETS or Conservation species. (DB-WLF-13)
WL-8	Management activities will not concentrate public use in the vicinity of cliffines, if such is detrimental to PETS species or habitat for Conservation species. (DB-1.C-WLF-2)
WL-9	Build no new trails in Rare Community Sites. (DB-1.G-Rec-2)
WL-10	Do not concentrate public use in Rare Community sites. (DB-1.G-Rec-3)
WL-11	New roads, trails and temporary landings are permitted in rare community management zones as long as surface runoff from roads, ruts, trails, and landings is not concentrated into streams within the defined watershed, but rather dispersed across the site. (DB-1.G-ENG-Wet-1)
WL-12	Do not permit management activities in seep/streamhead/swamp rare communities that are likely to decrease, primarily though changes to the hydrologic balance, the likelihood of maintaining the viability of species that have uncertain prospects for continued viability. Hydrologic changes include those caused by changes in canopy vegetation. (DB-1.G-ENG-WET-2)
WL-13	Snags greater than six inches DBH and equal to or greater than 10 feet in height will only be removed between October 15 and March 31 unless they are a threat to human safety. (BMP-1)
WL-14	New trails will not be designated within 200 feet of caves. Existing user-created paths not included in the action alternatives within the 200 ft. buffer will be closed and rehabilitated. (BMP 2)
WL-15	All cliffines near existing and proposed trail crossings have been surveyed. Changes of more than 200 to 300 ft. to the existing or proposed trail locations, where they cross cliffines, will need to be surveyed prior to implementation. (BMP 3)
WL-16	Recreational or trail construction and maintenance activities will not occur within 330 feet of active eagle nests during the nesting season. (BMP 4)(USFWS 2007b)
WL-17	The Clear Creek population of Running Buffalo Clover will be monitored annually to ensure that the existing population is not adversely affected by any increases in equestrian use. (BMP 5)
WL-18	Design and layout of new trail construction or trail maintenance within the streamhead seep prescription area will be coordinated with the Forest botanist and hydrologist. (BMP 6)
WL-19	If a butternut tree is found, the tree will be assessed to determine whether it has been affected by butternut canker. No butternut trees will be removed unless they show clear evidence of canker. (BMP 7)
WL-20	Prior to any new disturbance associated with trail or parking lot construction/relocation, a habitat suitability assessment will be conducted for running buffalo clover. Suitable running buffalo clover habitat will be surveyed by a qualified biologist for the presence or absence of plants. Suitable habitat includes closed canopy forest along roads or trails, or open canopy sites where there is a source of limestone. If plants are documented, a Forest Service biologist or ecologist will be contacted, who will identify appropriate buffers or avoidance and minimization measures necessary to ensure that the population is maintained. Impacts to new and existing running buffalo clover populations will be avoided/ minimized where possible. If impacts to new or existing populations cannot be avoided/minimized, formal consultation with USFWS will be initiated. (BMP8)
WL-21	To ensure that the gate installed on Murder Branch Cave is "bat friendly", USFWS will provide technical assistance and approval of the final gate design and construction period. (BMP 9)
WL-22	Best Management Practices including erosion and sedimentation control measures (i.e. silt barriers) will be implemented during new trail and parking lot construction where determined necessary to minimize effects to water quality. Additionally all new trail construction across streams should be done during periods of low flow. (BMP 10)

Design Feature	Cave Run Nonmotorized Trails Project Design Feature
WL-23	To ensure that project area streams are maintained and that effects to streams and water quality are within those anticipated, streams are routinely monitored on an annual basis to evaluate impacts from management actions such as trail crossings. Streams within the project area are part of this monitoring strategy. (BMP 11)
<b>HS</b>	<b>Hydrology and Soil Resources</b>
HS-1	Allow no new designated OHV, horse, or bicycle trails within the scoured ephemeral stream zone except at designated crossings or where the trail location requires some encroachment, for example, to accommodate steep terrain. (DB-REC-7)
HS-2	No new trails for off-highway vehicles, bicycles, horses, and other non-pedestrian modes of transportation are to be constructed within the [1.E] area (Riparian Corridor), except to approach and cross at designated sites, or where the trail location requires some encroachment (e.g. to accommodate steep slopes). (1.E-REC-1)
HS-3	In riparian corridor, do not allow overnight tethering or corralling of horses or other livestock within 100 feet of stream courses or 300 feet of other water bodies. Maintain existing corral sites to limit impacts to water quality and riparian corridors. (1.E-REC-2)
HS-4	Any trail construction (in Riparian Corridor) must be accomplished in accordance with relevant state Best Management Practices <sup>12</sup> or Forest Service regional/national direction for erosion control (e.g., USFS Region 8 Trails South <sup>13</sup> ). (1.E-REC-3)
HS-5	New non-motorized trail construction (in Riparian Corridor) is allowed to improve existing trail configuration and improve access to streams, lakes and the riparian corridor. (1.E-REC-6)
HS-6	Motorized and non-motorized trail reconstruction and relocation within riparian corridor are allowed to reduce impacts to riparian and aquatic resources. (1.E-REC-7)
HS-7	New roads, trails, and temporary landings are permitted in rare community management zones (Forest Plan Figure 3 - 2) as long as surface water runoff from roads, ruts, trails, and landings is not concentrated into streams within the defined watershed, but rather dispersed across a wide area. (1.G-ENG-WET-1)
<b>R</b>	<b>Recreation Resources</b>
R-1	Notify the recreating public if there will be area road and trail closures due to non-motorized recreation maintenance activities in the project area. Public notification can be provided at interpretive panels and/or on the Forest web page.
R-2	Place interpretative panels at trailheads or recreation sites to aid in public education of trail closures and/or maintenance during project activities.
R-3	Existing trails will be improved to better facilitate the designated use, and new trail construction will meet minimum design standards for the designated use (FSH 2309.18).

**Non-Significant, Site-Specific Amendment to the 2004 Land and Resource Management Plan for the Daniel Boone National Forest**

My decision requires a site-specific Forest Plan amendment for closure of off-trail horseback riding or use of pack animals<sup>1</sup> within the project area. A Forest Supervisor’s Order will be prepared to implement this amendment. I have elected to conduct this amendment following the 1982 planning regulations. According to 36 CFR 219.17(b) (Federal Register, April 9, 2012), during the transition period that ends on May 9, 2015, the responsible official may elect to conduct the plan amendment process under the provisions of the prior regulation (which includes the

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<sup>1</sup> “Service Animals” are exempt from this standard. As of September 2010, the Civil Rights Division of the U.S. Department of Justice has redefined a “service animal” for the purpose of the Americans with Disabilities Act: “*Service animal* means any dog that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability. Other species of animals, whether wild or domestic, trained or untrained, are not service animals for the purposes of this definition. The work or tasks performed by a service animal must be directly related to the individual's disability.” (28 CFR 35.104)

transition period in the 2000 regulations that allows for the use of the “1982 planning regulations” [those regulations in effect before November 9, 2000]).

After reviewing the Environmental Assessment that includes Amendment # 3 to the Forest Plan, I have determined that the decision to implement this amendment will not result in a significant change to the Forest Plan. This determination was made after consulting 16 U.S.C. 1604(f)(4), 36 CFR 219.10(f) (1982 regulations), Forest Service Manual 1926.51 – Changes to the Land Management Plan that are Not Significant.

Based on these planning requirements, I have determined that:

- This amendment will not significantly alter the levels of goods and services projected by the Forest Plan; nor will it prevent the opportunity to achieve those outputs in later years.
- This amendment will not affect the entire land management plan, nor will it affect a large portion of the planning area during the planning period.

### **Determination of Significance**

The following factors were considered to determine if changes to amend the 2004 Land and Resource Management Plan for the Daniel Boone National Forest are significant or non-significant based on National Forest Management Act planning requirements.

#### ***Timing***

The timing factor examines at what point, over the course of the forest plan period, the plan is amended. The age of the current Forest Plan and duration of the amendment are relevant considerations in timing; the later in the forest plan period the amendment occurs, the less significant the change is likely to be. This amendment is occurring nine years following signature of the 2004 Forest Plan. The 2004 Forest Plan is intended to guide coordination of multiple uses and promote sustained yields of products and services on the Daniel Boone National Forest for a 10 to 15 year period, and will thus be considered for revision in the next two to five years. This amendment will only be effective for a short time until a revised plan is prepared. This amendment is therefore not considered a significant change.

#### ***Location and Size***

The planning area for this action is about 52,500 acres. The actual effect of the action is reduced by area terrain, water, and vegetation, which greatly limit the physical ability of cross-country travel throughout the project area. The affected area is about five percent of the nearly 706,000 acres covered by the Forest Plan, and will have a negligible effect in relation to the Forest Plan.

#### ***Goals, Objectives and Outputs***

This change is small relative to the projections made in the Forest Plan. The change does not significantly alter the long-term relationship between levels of multiple-use goods and services originally projected in the Forest Plan.

#### ***Management Prescriptions***

This change does not alter the intent of management prescription area direction described in the Forest Plan, and to some extent will strengthen direction within the project area. For example, current language in the Forest Plan states: “Protect geological features such as arches, caves, and rock shelters.” Allowing horse use only on designated trails further protects these features within the larger forest environment.

Based on evaluation of the above criteria, I have determined this amendment is not a significant change to the Forest Plan. Appropriate public notification has been made as per 16 USC 1604 (f) (4). The comment period occurred in September-October of 2012. Project status was maintained on the Forest’s SOPA list and public Internet site.

# Reasons for My Decision

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In making my decision I considered all public comments and resource and social issues identified during the planning process and I sought to achieve a manageable solution to balance user needs and desires with responsible natural resource management. I considered the purpose and need, environmental and social issues, consistency with the Forest Plan and the requirements of other laws, regulations and policies. I carefully evaluated the environmental impacts of the alternatives, focusing on the issues, to balance trade-offs between beneficial and adverse effects and the preferences of diverse publics.

The criteria I used for making my decision was based on how well the management actions analyzed in the EA met the purpose and need objectives of the project and addressed the issues and comments raised during the scoping and comment periods. I considered the 2004 Forest Plan and evaluated the effects disclosed in the EA. The EA evaluated the environmental effects of taking no action and the effects of three action alternatives (EA, pp. 54-158). I based my decision the following considerations:

## Meeting the Purpose and Need and Project Objectives

Project objectives that address the purpose and need for the project are based on Forest Plan direction. Table 3 shows how my decision helps to achieve Forest Plan goals and objectives.

**Table 3. How the Selected Alternative Meets the Purpose and Need for Action of the Project**

Purpose and Need Project Objectives	Existing Condition	Selected Alternative
Provide a trail system to address recreation demand and benefit local communities and the public.	Trails are not in the condition necessary to produce the desired user experiences being sought. Local businesses supported by trail users have declined.	Addressed through: <ul style="list-style-type: none"> <li>• Addition of trails</li> <li>• Improved trail conditions</li> <li>• Sustainable use</li> <li>• Effective distribution of use</li> <li>• Upgraded accessibility</li> <li>• Clear trail information</li> </ul>
Provide an enjoyable non-motorized trail user experience through appropriate trail use designation	The existing trail system does not consider diverging trail needs, limitations, and preferences desired by different user groups.	Addressed through: <ul style="list-style-type: none"> <li>• Designation of all single use trails</li> <li>• Improvement and construction of trails to appropriate design standards</li> <li>• New trails designed for the intended use</li> </ul>
Provide a non-motorized network of trails capable of sustaining the designated use	The existing trail system was not designed to standards to support horse and mountain biking use.	Addressed through: <ul style="list-style-type: none"> <li>• Improvement and construction of trails to appropriate design standards</li> <li>• Seasonal restrictions to mitigate trail damage during wet seasons</li> </ul>

<b>Purpose and Need Project Objectives</b>	<b>Existing Condition</b>	<b>Selected Alternative</b>
Reduce impacts to aquatic and riparian habitat, rare communities, threatened, endangered and sensitive species, cultural resources, and recreation and aesthetic values	The existing trail system traverses sensitive areas and has the ability to affect sensitive plants and wildlife, riparian, cliffline, and rare communities, cultural resources, and aesthetic values. Off-trail horse travel has the potential to affect the general forest environment and sensitive areas.	Addressed through: <ul style="list-style-type: none"> <li>• Trails are improved and constructed using applicable erosion control standards and best management practices</li> <li>• Stream crossings are hardened appropriately to reduce trail sediment</li> <li>• Trail users stay on designated trails. This protects rare community sites, clifflines, and bat hibernation, staging, and maternity sites</li> </ul>
Provide adequate trailhead parking accommodations	The existing trailhead parking facilities cover a wide distribution within the project area, but many are not preferred due to the lack of amenities, adequate space, and difficult access.	Addressed through: <ul style="list-style-type: none"> <li>• One existing parking area will be expanded</li> <li>• Three new parking areas will be constructed</li> </ul>
Provide trail loops of various lengths and experience levels.	Existing, shorter trail loops at trailhead locations are most utilized by all user groups. Outside of these, opportunities for loop rides and varying lengths of loop rides diminish. Caney Loop is important to all user groups, as it provides an “easy” experience level trail with easy access.	<ul style="list-style-type: none"> <li>• Caney Loop is designated horse/hike only</li> <li>• Murder Branch trail is designated horse/hike only</li> <li>• Hog Pen trail is removed from the trail system</li> <li>• Two new short horse loops added near White Sulphur trailhead</li> <li>• New bike trail loops and trailheads added in 2 locations</li> </ul>
Provide easily accessible and understandable information to trail users	Trail signs, maps, and information boards need to be replaced and updated. Most trail users remain on short loops close to trailheads because trail maps are not posted and trail signage is outdated. Trail etiquette is not posted, which adds to user conflicts on the trails.	Includes measures to: <ul style="list-style-type: none"> <li>• Post trail signing with large, easily readable maps, trail uses, trail name and/or number, experience levels, mileages, intersections, roads, places of interest, and current location.</li> <li>• Update and locate information boards with the above plus trail closure, emergency, etiquette, pack in/pack out, and volunteer information.</li> </ul>

Purpose and Need Project Objectives	Existing Condition	Selected Alternative
Engage the public in cooperative, collaborative efforts that build support in helping to meet the Forest's desired future condition and the public's desired experience	Formalized partnerships or agreements are not in place to specifically promote and further the Cave Run trail system. Use conflicts have hampered efforts to unite user groups in trail maintenance and enhancement efforts. The Sheltoewe Trace Association could provide a model for future partnerships.	Includes measures to: <ul style="list-style-type: none"> <li>• Develop agreements to involve equestrian and mountain biking user groups in trail planning, expansion, maintenance and enforcement</li> <li>• Unite and focus partners on trail improvement and maintenance to build ownership in the trails and reduce user conflict.</li> </ul>

**Addressing Project Issues**

Issues raised during the scoping period were addressed by the alternatives considered. Table 4 shows how my decision addresses project issues. Many of the social issues raised were polarized between competing uses, so compromise and balance were necessary considerations in my decision.

*Table 4. How the Selected Alternative Addresses Project Issues for the Cave Run Nonmotorized Trails Project*

Project Issues	Issue Measures	Existing Condition	Selected Alternative
Eliminating the Caney area to horse use will impact equestrian users requiring less challenging trail conditions; novice riders, riders with physical limitations, and older user groups.	Miles of "easy" trails available to equestrians	12.4 Miles Includes shared use of Caney Loop	12.4 Miles Includes horse use only on all of Caney Loop
Dividing several existing all-use trails between equestrians and mountain bikers (reducing equestrian trail miles) will decrease trail availability and use by women, who are the majority of horse riders.	Trail miles available compared to previously available (all trail miles proposed are available to hikers)	74 trail miles available to all uses	43 trail miles available to horses; 40 trail miles available to bikes; Reduction in trail miles in order to balance project objectives and issues.
Closing the southern portion of the Sheltoewe to horses will impact horse users' ability to access the natural arch which is an important, traditional destination spot.	Equestrian access to the natural arch	Direct horse access to the arch	View arch from new rest area off of FR 906
Closing portions of the Sheltoewe Trace to bikes will impact bikers' opportunities for "through" trips on the Sheltoewe Trace	Miles of Sheltoewe Trace open to bike users	Approximately 25 miles; Through bike access on the Sheltoewe Trace	Approximately 6 miles; Bike access on the Sheltoewe Trace east of County Rd 801; No through access to bikes in order to balance project objectives and issues.

<b>Project Issues</b>	<b>Issue Measures</b>	<b>Existing Condition</b>	<b>Selected Alternative</b>
Seasonal closure of trails adjoining trailheads restricts access to areas open to all season use.	Number of trailheads accessing all-season equestrian trails	Five trailheads accessing all trails	Two trailheads accessing all-season equestrian trail system plus two special use trails from private businesses
Proposed blanket seasonal trail closures exclude users preferring "off season" experiences.	Miles of trail available year-around by use	Trail system open year-around to all uses	10 trail miles and 9 road miles of all-season trail system will be open to horses
			40 trail miles and 5 road miles of all-season trail system will be open to bikes
Proposed shared use trails on steep and narrow trail segments (including 104, 116, portions of 112, 113) will trigger user conflicts and create safety hazards to users.	Shared use on the steep portions of trails 104, 112, 113, and 116.	Shared use on all steep and narrow trails	Separated use on all steep and narrow trails: Horse use only on trail 116; Bike use only on trails 104, 112, 113
Proposed shared use trails are difficult to navigate or impassible to bikes, are littered with equine feces, and provide an unacceptable bike user experience due to trail tread conditions caused by horse use.	Miles of trail open to bike/hike use only	No trails bike/hike only; Shared use of all trails	40 miles bike/hike only use; No shared use trails
Fewer miles of equestrian trails and fewer miles of trails open to all season use will result in increased degradation on remaining equestrian trails and trails open year-around due to the resulting increase in use.	Trail miles available to equestrians compared to previously available	74 trail miles available to all uses	43 trail miles available to horses; 40 trail miles available to bikes; Improving trails to Forest Service design standards will moderate resource impacts.
Wet weather causes trail degradation and resource damage throughout the year and wet weather closures need to be considered along with or in addition to seasonal trail closures.	Precipitation analysis comparisons for seasonal vs. year-round precipitation events	Voluntary wet-season closure at Caney Loop trails	Equestrian trail closure of most sensitive trails in the project area from December 15 to May 15.
Equestrian trails in low-lying wet areas along Cave Run Lake impact water quality by increasing sedimentation due to eroding soils, and through horse feces washing into the lake.	Miles of equestrian trail in riparian corridor	5 miles of trail within riparian corridor	3.9 miles of trail within riparian corridor
	Number of trail-stream crossings	73 trail-stream crossings	58 trail-stream crossings

<b>Project Issues</b>	<b>Issue Measures</b>	<b>Existing Condition</b>	<b>Selected Alternative</b>
Maintaining the section of the Sheltoewe Trace between County Road 129 and Forest Road 906A open to horses will exacerbate slumping soils created by horses cutting across the switchbacks and causing increased erosion.	Miles of trails on slopes greater than 15 percent	6.8 miles; All uses on Sheltoewe switchbacks	11.8 miles; Horse/hike use only on Sheltoewe switchbacks in order to balance project objectives and issues.
Off-trail horse use (cross country riding) promotes unmanageable resource impacts, particularly where new “undesigned” trails become developed.	Project area acres open to cross country riding	52,500 acres Off trail horse use is permitted throughout the project area	0 acres Off trail horse use is not permitted off of designated horse trails
Blanket seasonal trail closures will shorten the tourism season and harm many small businesses.	Employment and labor income response in the local economy from a fixed change in recreation visitation.	Data and models estimate that area horseback riding and area mountain biking each contributes approximately 6.4 jobs and \$137,000 annually to the three project area counties.	Effects of current use constitute less than a tenth of one percent of employment in recreation related sectors. As a result, small decreases in horseback riding use will have small economic effects in the project area counties.

**Other Alternatives Considered**

In addition to the selected alternative, I considered three other alternatives. A description of these alternatives can be found in the EA on pages 27-36. Alternatives considered but eliminated from detailed study are described in the EA on pages 39-42. A comparison of the alternatives is in the EA on pages 43-53.

**Consideration of Public Comments**

I considered all comments and opinions that have been received to date on this project before making my decision. We invited Federal, State and local government agencies, the general public, and other groups and individuals potentially interested in or affected by the project to review and comment on our proposed action. The complete comment analysis is in the project record.

My decision thoroughly considered miles of trail available to different uses, traditional destination sites and user’s attachments to primary established areas. In making the decision to totally separate uses, I evaluated the logic of trails shared between horse use and bike use on a highly used trail system with complex geology, challenging topography, highly erodible soils and frequent precipitation. I contemplated the similarities and differences in trail user’s needs, limitations and preferences and how those could best be achieved within the context of the Cave Run trail system.

My decision included special consideration of the following concerns:

***Trail mileages and trail conditions***

Much of the discussion on this project has focused on which trails should be designated to which uses, and how many miles of trail should be included for each use. Many equestrians expressed a strong desire to “leave things the way they are” and not change current management out of the concern for the loss of trail miles and critical routes. Mountain bikers largely requested complete separation of horse trails and bike trails. Comments suggested many of the trails within the project area are currently impassible by bikes due to the current condition of the trail tread. Although my desire was to not have to reduce trail mileage for any user, my recognition that shared-use

trails within the project area do not meet the fundamental qualities or objectives that are principal to mountain bikers weighed heavily in my decision. In this decision, reduction in designated trail mileage from the existing condition is substantially the same for horse trails and mountain bike trails; the trail system provides individual user groups about 60 percent of the trail mileage previously available to them. Exclusive use of closed and seasonally closed administrative roads will augment the trail system and mileages available to designated users by creating additional riding opportunities and connecting trail loops (Figure 1).

**Table 5. Trail Characteristics Following Implementation of the Cave Run Trails decision**

<b>Trail Designation – Miles Available After New Construction</b>	<b>Units</b>
Horse/Hike Trails (Miles)	43
Bike/Hike Trails (Miles)	40
Hiking Only Trails (Miles)	8
All Use Trails (Miles)	0
Total System Trails (Miles)	91
System Roads Completing Horse Loops (Miles)	23
System Roads Completing Bike Loops (Miles)	4
System Roads Completing Shared-Use Loops (Miles)	1
<b>Seasonal Trail Use</b>	
All Season Trail Use – Horses (Miles)	10
All Season Trail Use – Bikes (Miles)	40
System Roads Completing All Season Horse Loops (Miles)	9
<b>Trail Treatments</b>	
Trail Improvement (Miles)	71
New Trail Construction (Miles)	20
Trail Closure (Miles)	5
Trail Maintenance (Miles)	91
<b>Facilities Treatments</b>	
Horse Resting Site Improvement or Construction (Number of Sites)	9
Trailhead Improvement (Number of Sites)	1
Trailhead/Parking Area Construction (Number of Sites)	3
<b>Off-Trail Horse Use</b>	
Project area acres closed to off-trail horse use (acres)	52,500 (all)

### ***Caney area trails***

In knowing that comments overwhelmingly reinforced the importance of the Caney area to all users, I focused considerable time evaluating the options for Caney area and for “easy” experience level trails. Many of you suggested the construction of a new loop trail on the north side of the Sheltoewe Trace from the Stoney Cove trailhead, to separate horses and bikes but maintain use of the general area for all users. Again, what appeared to be plausible routes on the map were not feasible on the ground when resource effects were assessed. I decided to designate use of the Caney area to equestrians and hikers due to the proximity of the trails to the White Sulphur Horse Camp and other designated public and special use horse trails, which created an equestrian trail system for the area. To accommodate mountain bike use, the decision authorizes new mountain bike loop trails connecting to the Big Limestone and Sheltoewe Trace trails in the area north of Cave Run Lake as well as in the Clay Lick area.

### ***New trail construction***

In trying to achieve equitability between uses and meet desired needs, we considered many options for new trails, initially looking at the possible corridors mapped by Trail Dynamics (Keen 2011). Field review of these corridors indicated that sites or zones where trails are generally located for stability and sustainability were not suitable in the unique area geology and topography of the Cave Run Nonmotorized Trails project area. This substantially restricted my options for providing more separation of uses with limited loss of mileage for individual uses within the project area. New mountain biking and equestrian trails will be constructed in areas where trails meet management requirements and are physically feasible on the landscape. The decision to construct more miles of mountain biking trails than horse trails was due primarily to equestrian's comments conveying a strong connection to existing trails, and both equestrians and mountain bikers suggesting that new trails be built for mountain biking use.

### ***Resource protection***

A vital element guiding my decision was the reduction of impacts to riparian habitat, rare communities, threatened, endangered and sensitive species and cultural resources. This decision does not alleviate all resource concerns, but it does offer an opportunity to moderate current resource impacts caused by the existing trail system. Trails along Trough Lick Branch and Boardinghouse Branch will be moved out of riparian areas, approximately 1.8 miles of trail in the Graveyard Branch drainage and above Cave Run Lake will be eliminated, and off-road stream crossings will be reduced. Trail and trail facility improvements, seasonal and area closures to horse use, restoration of non-designated trails and paths, and trail user education and collaboration will also help to protect valuable natural resources within the project area.

### ***Seasonal trail use by horses***

Seasonal closure of the most sensitive designated equestrian trails from December 15 to May 15 will minimize undesirable impacts to the trail system and other resources during extended periods of wet conditions. Analysis of area precipitation and streamflow data and management observations supports this season of closure. Comments supported the need for some all-season trails for those preferring an "off season" experience. This decision incorporates 10 miles of all-season equestrian trails identified in Figure 2. We located the all-season trail system based on trailhead availability and trail access, riparian protection, and use of routes that are co-located on administrative roads. Gated, durable all-weather roads provide an additional nine miles that hold up to wet season and freeze/thaw period use and increase the all-season mileage and loop opportunities within the project area. We will monitor effects to equestrian and mountain bike trails to determine whether future additions to seasonal closure restrictions are needed, or whether seasonal closures can be lifted on specified trails.

### ***Murder Branch area trails***

As a part of my decision, I chose to designate 5.6 miles of existing non-system user-created trail in the Murder Branch area for horse use. This designation was not without a great deal of deliberation. I weighed the significance of the Murder Branch trails from the perspective of historic use and inherent value and I assessed the administrative and environmental consequences of designating the trail. Resource concerns in the Murder Branch area are twofold. Existing trails are within or in close proximity to cliffline community and significant bat cave prescription areas. These areas are important from both a wildlife and archeological perspective, and require additional protection measures. My decision incorporates measures to alleviate on-going resource damage and to minimize or eliminate effects from potential future recreation disturbance. My decision physically closes the existing trails within 200 feet of the Murder Branch Cave and requires the installation of a gate at the cave entrance for the protection of cave ecology and the variety of bats inhabiting the cave. My decision also incorporates a phased identification and evaluation of cultural resources in the project area. The 5.6 miles of existing unauthorized trail in the Murder Branch area will not be designated until the Forest has completed archaeological surveys to identify historic properties and our responsibility to comply with Section 106 of the National Historic Preservation Act are fulfilled.

### ***Off-trail horse use***

It is prudent to appraise the physical resource impacts and the management implications of cross country riding. This decision limits equestrian and pack animal use to the designated trail system and national forest system roads within the Cave Run Nonmotorized Trails project area. This action will discourage development of non-system trails and confine impacts to the trail system where they can be more easily managed through scheduled maintenance. In reaching this decision I have considered the resource impacts caused by unmaintained trails. Cross-country use can create unacceptable environmental impacts to archeological sites, threatened, endangered and sensitive wildlife and plant species, and water quality. User-created non-system trails place additional burden on natural resources and the administration of supporting and maintaining recreation uses. I realize this is a change for some equestrians. I believe most trail users in the Cave Run Nonmotorized project area remain on the clearly discernible trails (designated and unauthorized) due to area terrain limiting the physical ability of cross-country travel. I also believe the project area is rich in unique and sensitive natural resources that merit added protection as the numbers and diversity of recreation enthusiasts grow on the Forest. Public involvement has been very important in making this decision. Comments regarding cross-country riding largely supported either partial or full closure to off-trail horse use within the project area.

### ***Economic considerations***

The current condition of the trail system and controversy surrounding trail management can have an impact on people seeking a quality recreation experience, and may subsequently impact the local economy. Although analysis does not indicate that non-motorized use on the Cave Run trail system plays an appreciable role in the overall area economy, I recognize its value in supporting local communities. Comments clearly expressed the importance of contributions from both horseback riders and mountain bikers using project area trails, and their established connection to local area businesses. Many studies and examples were provided to me, showing the sizable contributions of equine related expenditures in Kentucky, and the positive effects that quality mountain biking trails can have on local communities. In designating trails to individual uses, my decision acknowledges the importance of quality recreation and its relationship to local communities and enterprises dependent on recreation-related income.

This decision regulates riding opportunities within the Cave Run Nonmotorized Trails project area with the intent of providing a better recreational experience to visitors through proper resource management. Divergent needs and desires of distinctive users will be more easily fulfilled and user experience, satisfaction and ultimately, ownership in the trail system will evolve. The decision to separate uses will allow clearly definable trail objectives and more easily sustainable trail conditions for individual uses. As I stated previously, this decision is a first step in providing the needed change in the management of the Cave Run non-motorized trail system. The scope of this decision allows us the ability to monitor, adapt and manage to provide a sustainable trail system that is a desired destination for equestrians, mountain bikers and hikers.

## **Public Involvement**

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A list of the agencies, organizations, and individuals we contacted during scoping and other public involvement opportunities can be found in the project record. The public was invited to participate in the project in the following ways:

### **2008 Cave Run Nonmotorized Trails Initiative Process**

Although not specifically a part of the NEPA process, the 2008 Cave Run Nonmotorized Trails Initiative (CRTI) became the basis for the initial development of the proposed action. We organized the initiative to bring together various non-motorized trail users, community members, and others who were interested in reaching agreement on how to manage Cave Run trails. A public meeting resulted in appointing a stakeholder workgroup with

representative balance between user groups. The workgroup met from February through August of 2008 to develop a proposal for the trail system. Although the workgroup did not arrive at consensus, they generated valuable information that we used to structure the original proposal. The workgroup was generally unified on issues, desired trail attributes, and general recommendations for trail management. Differences focused on what trails should be designated for individual uses. We incorporated this input into the proposed action that we shared with you in November 2009.

### **Forest Schedule of Proposed Actions and Forest Website**

We first listed the proposed action in the Forests' "Schedule of Proposed Actions" beginning January 2010, where it has appeared in each subsequent issue. The initial proposal was also posted on the forest website.

Public updates were posted on the forest website in October 2010; January, March, April, May, August, October, November 2011; March, May, July, November 2012; and February, March, June and August 2013.

### **Project Scoping and Public Open House - November 2009**

On November 12, 2009, we distributed a letter providing detailed information on the proposed action. We mailed or emailed the letter to approximately 240 individuals and groups interested in Daniel Boone National Forest projects and the Cave Run Lake trail system. Mailings included federal, state, and local agencies, affected user groups and individuals, tribes, and news media. We asked for responses that included comments and concerns regarding the proposed action.

A public open house, held on November 23, 2009, accompanied the release of the proposed action so that we could answer your questions pertaining to the proposal, and you could express your concerns and desired outcomes for the trail system. All of the comments we received in response to the scoping letter and public open house were documented and can be found in the project record.

### **Public Open House and Trails Workshop – December 2010**

Comments we received in response to the proposed action informed us that more site specific trails information was needed to address the resource and social concerns brought forward during public scoping.

We contracted Trail Dynamics, a professional trail planner/builder, to complete an assessment of the Cave Run Lake trails and provide us with informed recommendations on trail management. The contract included two public workshops, designed to engage and educate everyone interested in the future of the trail system.

We mailed information to all parties described for the November 2009 public scoping and those who had expressed interest in the project, inviting participation in a public open house and two-day workshop the weekend of December 3 through 5, 2010.

Forest Service staff and the project team were available at the Friday evening open house to discuss the reasons we were incorporating the trail assessment, and explain how it would fit into the NEPA process. Saturday and Sunday, Woody Keen of Trail Dynamics presented an interactive workshop to help us all recognize and understand the possibilities for managing the Cave Run trail system. Together, we were able to communicate our concerns and ideas, and explore the capabilities and potential of the Cave Run trails.

### **Cave Run Trails Workshops – April and May 2011**

A second weekend workshop was planned for April, after the trail assessment was completed. The April workshop was not well-attended for several reasons—late notification of the event, inclement weather forecasts, and the "near" government shutdown, all of which caused confusion as to whether or not we would hold the event.

We scheduled an additional public participation opportunity with Woody Keen for May 21 and 22, 2011 in order to encourage continued interaction, which we considered fundamental to the development and success of the future management of the trail system. This workshop was well received and well attended.

The two-day workshop offered participants the opportunity to learn why problems were occurring, how to assess problem areas for sustainability, and how to implement the technical concepts related to repairing, maintaining, and managing sustainable trails. It also provided all of us another chance to share future visions and ideas, and consider opportunities, constraints, and concerns in an atmosphere of mutual cooperation.

Two news articles were reported in the Bath County News, announcing the workshop and describing the project, and relating the details of the workshop and field trip.

### **Comment Period and Public Meeting - September 2012**

The notice of opportunity to comment was published in the Lexington Herald-Leader Newspaper on August 31, 2012. Letters or emails were sent to individuals and groups who had expressed interest in the project, asking for meaningful comments on the proposed action and alternatives prior to a decision being made by the Responsible Official.

A public meeting was held during the comment period to explain the alternatives and how they were developed, and to give attendees the opportunity to ask questions about the alternatives and the decision process. All of the comments we received during the comment period were documented and can be found in the project record.

## **Finding of No Significant Impact**

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Based on review of the test for significance (40 CFR 1508.27) and the environmental analysis conducted, I have determined that Alternative 3, the Selected Alternative, will not significantly affect the quality of the human environment. Accordingly, I have determined that an environmental impact statement will not be prepared for this project. This finding is based on the context and intensity of the project as analyzed and documented in the EA and project file. The following is a summary of the project analysis to determine significance, as defined by Forest Service Handbook 1909.15\_05.

### **Context**

The disclosure of effects in the EA found the actions limited in context. The project area is limited in size and the activities limited in duration. My decision primarily designates approximately 91 miles of existing and planned system trail for horse/hike use, bike/hike use, or hiking only use within a 52,500 acre area of National Forest System lands. This area incorporates approximately five percent of the nearly 706,000 acre Daniel Boone National Forest lands. The trails designated in the decision account for about 18 percent of the approximate 500 miles of designated non-motorized trails on the Forest. This percentage is reduced when considering the established unauthorized trails in use across the Forest. Effects of the decided activities do not substantially impact the general population of equestrians, mountain bikers, or hikers and are principally local in nature. I find that the effects of the project are not significant as disclosed throughout the Environmental Consequences section of the EA (pages 54-158). The project is not likely to significantly affect regional or national resources.

### **Intensity**

The following discussion is organized around the ten significance criteria described in 40 CFR 1508.27. The following have been considered in my evaluation of intensity for this proposal.

**1) Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on the balance the effects will be beneficial.**

Potential impacts associated with the project are discussed in the EA. These impacts are within the range of those identified in the Forest Plan. The actions will not have significant impacts on other resources identified and described in the Environmental Consequences section of the EA (EA pp. 54-158). My decision provides site-specific regulation for non-motorized trail use around Cave Run Lake on the Daniel Boone National Forest. In addition, as described under “Reasons for My Decision”, my decision will result in only slight beneficial or undesirable effects, while advancing administrative, social and environmental conditions related to managing the Cave Run non-motorized trail system.

**2) The degree to which the proposed action affects public health or safety.**

Objectives established for the project sought to improve public health and safety associated with non-motorized trail use occurring in the Cave Run Nonmotorized Trails project area (EA pp. 9-17). The selected alternative incorporates proposed actions and design to mitigate resource damage and public conflict potentially associated with non-motorized use on the Cave Run trail system (EA pp. 22-28, 32-34, 37-39). Impacts to public health and safety were analyzed in the EA (pp. 54-158) and no significant impacts were determined to be likely as a result of the proposed action.

**3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.**

The project area has been partially surveyed for historical and cultural resources. Project design features (EA p.37) ensure compliance in implementing Section 106 of the National Historic Preservation Act (16 USC 470, as amended) by requiring that archaeological surveys to identify historic properties are completed in accordance with 36 CFR 800.4(b)(2) and the Memorandum of Agreement between Kentucky State Historic Preservation Office (SHPO) and Daniel Boone National Forest (Kentucky SHPO 2013) prior to the implementation of the various parts of the project. Wetlands existing along streams within riparian corridors have potential to be affected by activities authorized by my decision. These areas are analyzed in the Hydrologic and Soil Resources section of the EA (pp. 112-135). With implementation of design features (EA pp. 38-39) and Trail Design Parameters and Maintenance and Construction Methods that are a part of the Selected Alternative (EA pp. 22-24), there will be no significant effects on wetlands. Sensitive streamhead seeps, a Forest rare community, occur within the project area. Streamhead seep habitat and sensitive species associated with the seeps are addressed in the Biological Resources section of the EA (pp. 50, 56-57, 64-70, 90-91). I have determined that through implementation of project design features (EA p. 37-38), impacts will be eliminated or immeasurable. No parklands, prime farmlands, or wild and scenic rivers are located within the project area.

**4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.**

The effects of the decided actions are limited to the Cave Run Nonmotorized Trails project area and the watersheds and counties that contain the project area. Non-motorized trail use has been occurring in the area for more than 25 years. The effects of non-motorized trail use in the project area are known and they are not unique. While some disagreement exists regarding recreation use of public lands in general, no evidence has been presented showing environmental effects of these activities within the project area are different than has been disclosed in the EA.

**5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.**

Possible effects on the human environment are generally known and understood. The recognized potential effects resulting from non-motorized trail activities (EA, pp. 54-158) are similar to the effects of the same or like activities implemented in the project area in the past. The routes and areas designated for non-motorized recreation use do not involve unique or unknown risk.

**6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.**

Managing recreation and trail activities on the Daniel Boone National Forest is not precedent setting, nor does it represent a precedent for any future decisions; non-motorized trail activities will continue to be sanctioned on the Daniel Boone National Forest to achieve management goals and objectives (EA pp. 8-17). Activities included in this decision are site-specific to this project area. Any future proposals would need to consider all relevant scientific and site-specific information available at the time, and would require full NEPA compliance, public involvement, and consideration on its own merits. None of the alternatives analyzed here, nor any of their individual components will establish a precedent for future actions with significant effects, nor will they represent a decision in principle about future consideration. The decided actions will not lead to another future action or actions that will have significant effects either individually or in combination with each other or with this action.

**7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.**

A cumulative effect is the effect on the environment that results from the incremental effect of the action when added to the effects of other past, present, and reasonably foreseeable future actions, regardless of what agency or person undertakes the other actions and regardless of land ownership on which the actions occur. Cumulative effects are analyzed in the EA for each resource area potentially affected (pp. 54-158). As part of the decision, design features will be implemented to minimize or eliminate direct and indirect effects (EA pp. 37-39) and carry out the actions included in my decision in compliance with Forest Plan standards and other relevant laws and regulations. This serves to reduce any potential cumulative impacts due to the authorized activities.

**8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in the National Register of Historic Places or may cause loss or destruction of significant cultural or historical resources.**

Project design features (EA p.37) ensure compliance in implementing Section 106 of the National Historic Preservation Act (16 USC 470, as amended) by requiring that archaeological surveys to identify historic properties are completed in accordance with 36 CFR 800.4(b)(2) and the Memorandum of Agreement between Kentucky SHPO and Daniel Boone National Forest (Kentucky SHPO 2013) prior to the implementation of the various parts of the project. No significant effects to cultural resources were identified (EA pp. 135-138).

**9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act.**

Six federally listed and proposed species either have been documented within the action area, or the action area is within their current range and suitable habitat exists. Determinations disclosed in the Biological Assessment (project record) have concluded that my decision will have “no effect” on the gray bat, and is “not likely to adversely affect” Indiana bat, Virginia big-eared bat, snuffbox, sheepnose, and running buffalo clover. The Forest consulted with the U.S. Fish and Wildlife Service regarding impacts from the proposed action on Threatened and

Endangered species. The determination is based on the proposed action and project design features intended to minimize negative effects.

The EA and project record support a Finding of No Significant Impact for the implementation of the proposed action because:

- With implementation of Forest Plan Standards and Guidelines, no direct mortality to bats would occur.
- There will be little change in the availability of bat roosting, foraging or swarming habitat and no indirect mortality is anticipated.
- Suitable bat roosting and foraging habitat will be maintained on lands affected by new trail construction.
- Public access into the Murder Branch Cave will be eliminated and equestrian cross country travel and potential erosion and sedimentation into the cave would be reduced.
- The decision will improve trails to a standard that will reduce impacts to soils, vegetation, and water quality.
- Seasonal use restrictions, reduced off-highway trails and reduced shared use will reduce impacts from trail use.
- Trail decommissioning will reduce impacts to streams and riparian habitat.
- Soil and water impacts will be reduced across the action area due to equestrian cross country closure.
- State water quality standards will be met.

While an existing population of running buffalo clover occurs along an equestrian trail, disturbance from existing use is helping to maintain this population. Trail use near existing populations will be monitored and it is not anticipated that use along this section of trail will increase to a level that would result in adverse effects.

**10) Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.**

The decided action will not threaten a violation of federal, state, or local law, or requirements imposed for the protection of the environment; see the section below for further details regarding applicable laws and regulations. The decided action is fully consistent with the 2004 Forest Plan. This action is also in full compliance with the National Environmental Policy Act and is consistent with the National Forest Management Act and its requirements detailed in 36 CFR 219.27.

**Conclusion**

After considering the environmental effects described in the EA and specialist reports, I have determined that Alternative 3, the Selected Alternative, will not have significant effects on the quality of the human environment considering the context and intensity of impacts (40 CFR 1508.27). Thus, an environmental impact statement will not be prepared.

# Findings Required by Other Laws and Regulations

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## **National Forest Management Act**

This decision is consistent with the intent of the Forest Plan's long term goals and objectives (EA p.8-17). All management practices and activities in the selected alternative are consistent with Forest-wide management direction and prescription area direction.

The project area lies within the following Forest Plan prescription areas: 1.C. Cliffline Community (Forest Plan p. 3-5); 1.E. Riparian Corridor (Forest Plan p. 3-9); 1.G. Rare Community (Forest Plan p. 3-17); 1.I. Designated Old Growth (Forest Plan p. 3-26); 1.J. Significant Bat Cave (Forest Plan p. 3-29); 1.K. Habitat Diversity Emphasis (Forest Plan p. 3-31); 3.A. Developed Recreation Area (Forest Plan p. 3-47); 3.B. Large Reservoirs (Forest Plan p. 3-50); and 5.C. Source Water Protection (Forest Plan p. 3-77).

Prescriptions 1.K. Habitat Diversity Emphasis, 5.C. Source Water Protection, and 1.E. Riparian Corridor make up nearly 85 percent of the project area.

## **Clean Water Act**

The decided action is consistent with the Clean Water Act and its amendments. Effects to water quality indicators are disclosed in the Environmental Impacts section of the EA in the Hydrologic and Soil Resources section (pp. 112-135). This project includes design features to ensure management activities maintain or improve watershed conditions (EA p. 38-39).

## **Threatened, Endangered, and Sensitive Species and Forest Watch Plants**

Determinations disclosed in the Biological Assessment (project record) have concluded that my decision will have “no effect” on the gray bat, and is “not likely to adversely affect” Indiana bat, Virginia big-eared bat, snuffbox, sheepnose, and running buffalo clover. The Forest consulted with the U.S. Fish and Wildlife Service regarding impacts from the proposed action on Threatened and Endangered species. This project includes design features to ensure management activities maintain protection of threatened, endangered, and sensitive species (EA p. 37-38).

## **Migratory Bird Treaty Act**

This decision complies with the Migratory Bird Treaty Act. This project complies with Executive Order 13186, Responsibilities of Federal Agencies To Protect Migratory Birds, because the analysis meets agency obligations as defined under the January 16, 2001 Memorandum of Understanding between the Forest Service and U.S. Fish and Wildlife Service designed to complement Executive Order 13186. Migratory bird species are analyzed in the Cave Run Trails Project Wildlife Report included in the project record. If new requirements or direction result from subsequent interagency memorandums of understanding pursuant to Executive Order 13186, this project will be reevaluated to ensure that it is consistent.

## **National Historic Preservation Act**

Section 106 of the National Historic Preservation Act (NHPA) (16 USC 470, as amended) requires federal agencies to consider the effects of their activities and programs on historic properties, and provide the Advisory Council on Historic Preservation the opportunity to comment on agency undertakings. At the state level, the State Historic Preservation Officer reviews federal undertakings on behalf of the Advisory Council. The procedures for implementing Section 106 are outlined in 36 CFR Part 800. Project design features (EA p.37) ensure compliance in implementing Section 106 by requiring that archaeological surveys to identify historic properties are completed in accordance with 36 CFR 800.4(b)(2) and the Memorandum of Agreement between Kentucky State Historic Preservation Office and Daniel Boone National Forest (Kentucky SHPO 2013) prior to the implementation of the

various parts of the project. Effects of this project to cultural resources are covered in the Heritage Resources section of the EA (pp. 137-138).

**Executive Order 13112 - Invasive Species**

Implementation of the decision will create conditions for the introduction and establishment of certain non-native plant species. This project includes design features to minimize spread (EA pp. 37-38).

**Executive Order 12898 – Environmental Justice**

In accordance with Executive Order 12898 (59 FR 32, 1994) alternatives analyzed in detail in the EA were assessed to determine whether they would have disproportionately high and adverse human health effects on minority or low-income human populations. Effects of this project are covered in the Environmental Justice section of the EA (pp. 147-155).

## Best Available Science

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I am confident that the analysis of this project was conducted using the best available science. My conclusion is based on a review of the record that shows a thorough review of relevant scientific information, a consideration of responsible opposing views, and the acknowledgment of incomplete or unavailable information, scientific uncertainty, and risk.

I recognize there are opposing views and limited information specific to trail use and economic activity attributable to various trail uses within the project area and on the Forest. Comments received from the public were explicitly concerned with changes in recreation use and subsequent effects to the local economy resulting from the proposed decision. Non-market values, such as the value of recreation experiences, by their nature are difficult to quantify. Direction provided in 40 CFR 1502.23 and Forest Service Handbook 1909.15 provide for the use of qualitative analysis to evaluate the effects of these non-market values. The EA describes the economic contributions from current recreation use related to the potential for economic effects within the scope of the decision. Recreation and economic analysis in the EA utilized the most recently published recreation use data attained on the Daniel Boone National Forest (USDA Forest Service 2009) combined with the most current statistics and analysis tools available. Recent studies, local reports and documented observations from local forest managers were also considered in the analysis of effects. Please refer to the specialist reports in the project file for specific discussions of the science and methods used for analysis and for literature reviewed and referenced.

## Administrative Review and Appeal Rights

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This decision is subject to appeal pursuant to 36 CFR 215.11. Only individuals or organizations who submitted comments during the 30-day notice & comment period held in in August and September of 2012 may appeal. A written appeal, including attachments, must be received by the Appeal Deciding Officer within 45 days from the date this notice is published in the *Lexington Herald-Leader* newspaper. This newspaper is published daily. Appeals must meet the content requirements of 36 CFR 215.14. Send the Notice of Appeal to:

Elizabeth Agpaoa, Appeal Deciding Officer  
Attn: Appeals  
USDA-Forest Service, Southern Region  
1720 Peachtree Road, N.W., Suite 811 N  
Atlanta, GA 30309

Appeals may be faxed to (404) 347-5401. Hand delivered appeals must be received at the Forest Service office at the above address in Atlanta, Georgia within normal business hours of 8:00 a.m. and 4:30 p.m. Appeals may also be mailed electronically in a common digital format to: [appeals-southern-regional-office@fs.fed.us](mailto:appeals-southern-regional-office@fs.fed.us).

## Implementation

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If no appeals are filed within the 45-day time period, implementation of the decision may occur on, but not before, 5 business days from the close of the appeal filing period. When appeals are filed, implementation may occur on, but not before, the 15th business day following the date of the last appeal disposition.

For further information concerning the Cave Run Nonmotorized Trails Project, contact District Ranger Dave Manner at 2375 KY 801 South, Morehead, KY 40351 or by calling (606) 784-6428.



FRANK R. BEUM  
Forest Supervisor  
Daniel Boone National Forest

25 September 2013

Date

## References

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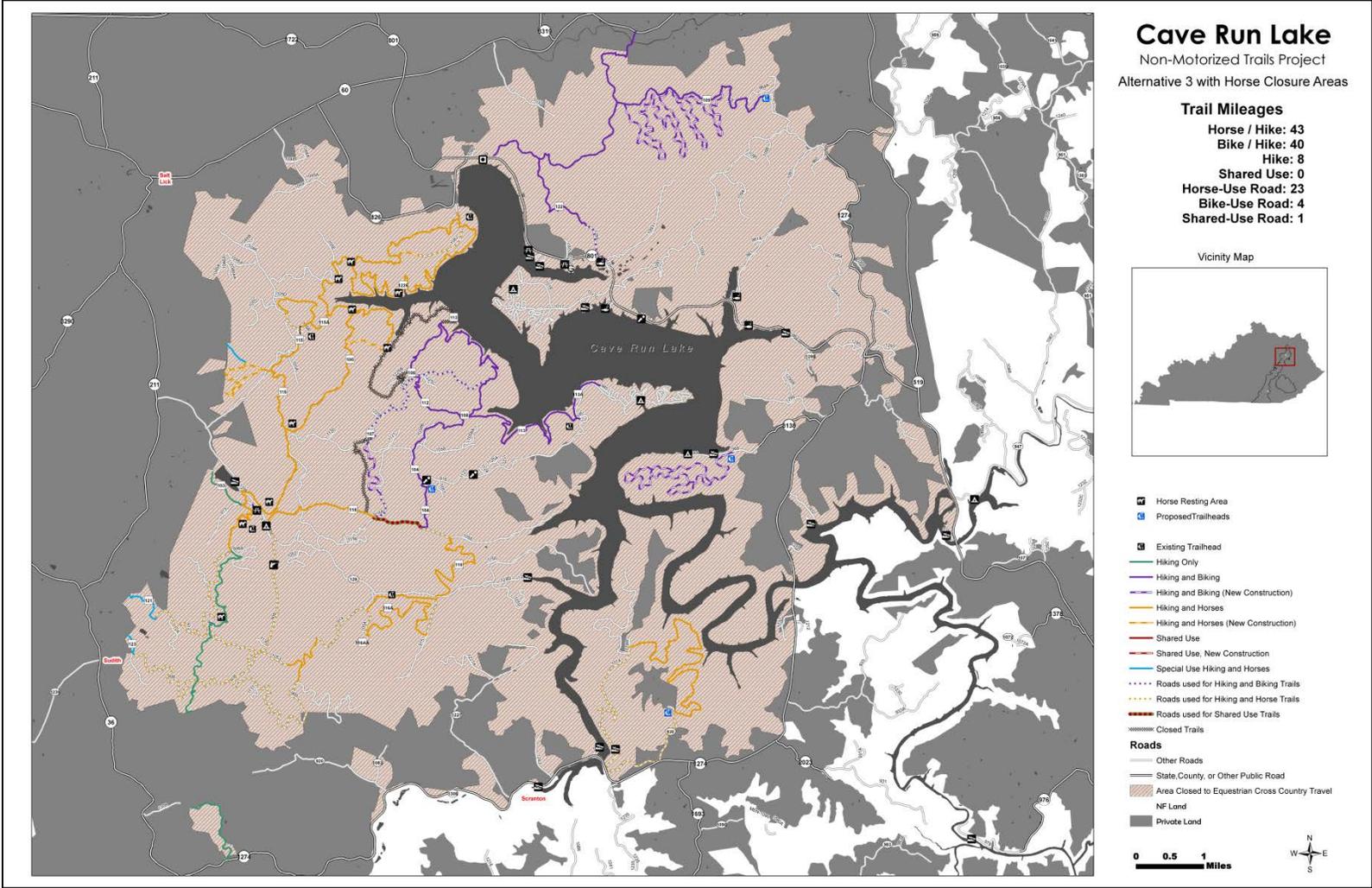
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Kentucky State Historic Preservation Office and USDA Forest Service, Daniel Boone National Forest. 2013. Memorandum of Agreement for the Cave Run Nonmotorized Trails Project. Internal document.

USDA Forest Service. 2009. National Visitor Use Monitoring Results, January 2009, Daniel Boone National Forest.

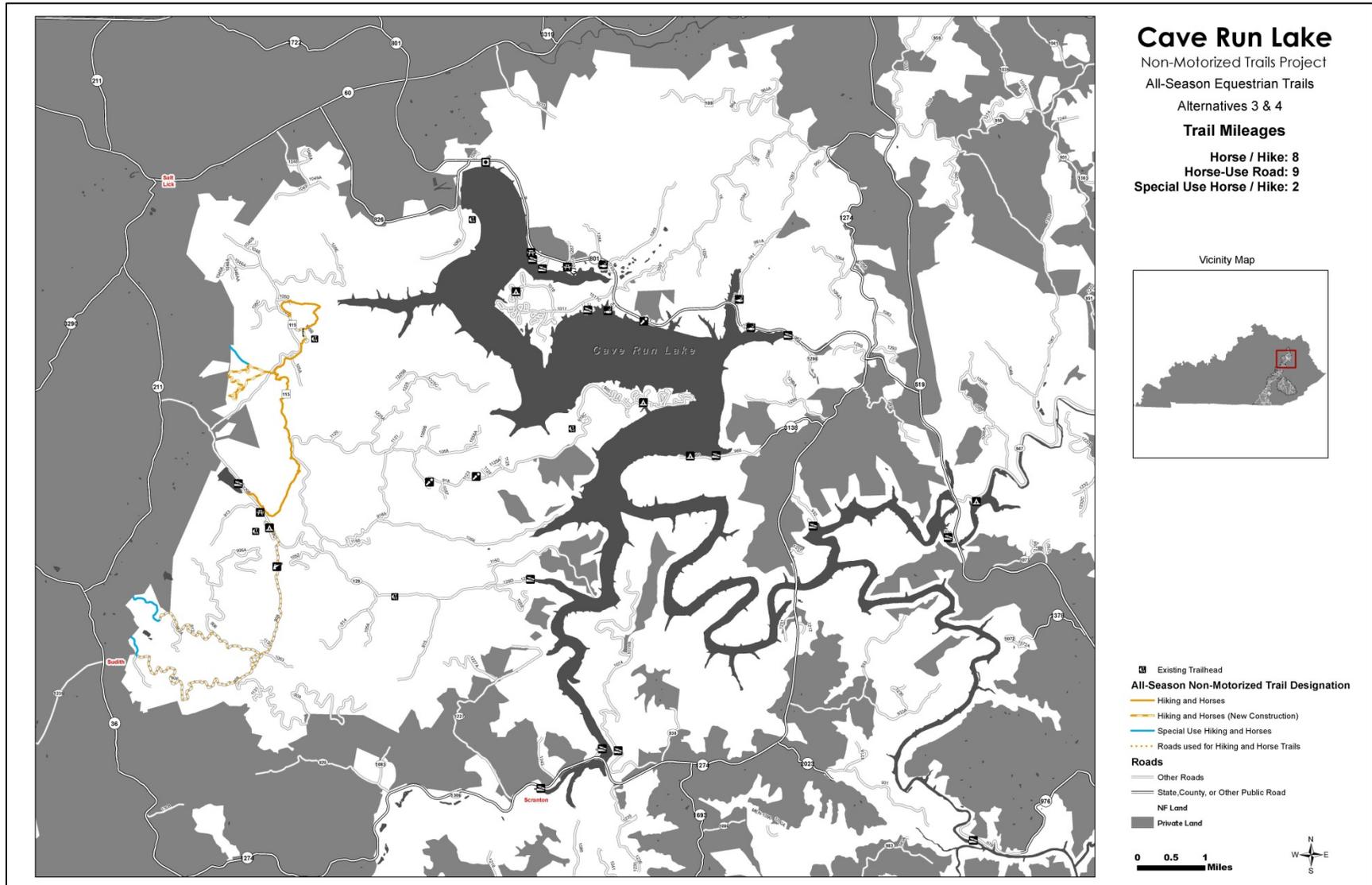
Appendix A

FIGURE 1. TRAIL DESIGNATIONS AND FACILITIES IN THE CAVE RUN NONMOTORIZED TRAILS PROJECT AREA



**Appendix B**

**FIGURE 2. ALL SEASON TRAIL SYSTEM AVAILABLE UPON TRAIL UPGRADE IN THE CAVE RUN NONMOTORIZED TRAILS PROJECT AREA**



## Appendix C

### *FOREST PLAN AMENDMENT #3*

Amendment #3 adds a new Forestwide Standard and the associated map to the *Land and Resource Management Plan for the Daniel Boone National Forest* (Forest Plan), April 2004. This amendment will be included as Forestwide Standard for Recreation **DB-REC-8** on page 2-22 of the Forest Plan. A map illustrating the closure area will be included as Figure G-19 in Appendix G of the Forest Plan. Please see Figure 1 in Appendix A above for specific location information.

**DB-REC-8 Allow no horses, pack animals<sup>2</sup> or other livestock in the area indicated on Figure G-19 (located in Appendix G of the Forest Plan) except on trails designated for such use or as specifically permitted and on Forest Service system roads as shown on the forest's Motor Vehicle Use Map:**

- 1) **Cave Run Lake vicinity (see Figure G-19 in Appendix G)**

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<sup>2</sup> "Service Animals" are exempt from this standard. As of September 2010, the Civil Rights Division of the U.S. Department of Justice has redefined a "service animal" for the purpose of the Americans with Disabilities Act: "Service animal means any dog that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability. Other species of animals, whether wild or domestic, trained or untrained, are not service animals for the purposes of this definition. The work or tasks performed by a service animal must be directly related to the individual's disability." (28 CFR 35.104)