

Francis Marion and Sumter National Forests
Equestrian Analysis

Francis Marion National Forest
and
Sumter National Forest
Enoree, Long Cane, and Andrew Pickens Ranger Districts

United States Department of Agriculture
Forest Service

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July 17, 2006

Ann Christensen
Recreation Director
Southern Region
USDA Forest Service
1720 Peachtree Street
Atlanta, GA 30309

Dear Ms. Christensen:

PricewaterhouseCoopers LLP ("PwC") is pleased to present our findings to the USDA Forest Service ("USFS"), Southern Regional Office regarding the equestrian analysis for the Francis Marion and Sumter National Forests in South Carolina. This work was conducted under USFS Blanket Purchase Agreement 45-43ZP-4-02 and Task Order No. 5. PwC's analysis, findings and conclusions are subject to the Assumptions and Limiting Conditions stated herein.

It has been a pleasure to be of service to the U.S. Forest Service. If we may be of further assistance, please do not hesitate to contact us.

Respectfully Submitted,



PricewaterhouseCoopers LLP

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1. EXECUTIVE SUMMARY

Scope and Purpose

The USDA Forest Service ("USFS") operates a series of equestrian facilities and trails in the Francis Marion and Sumter National Forests ("FMS" and "the Forests") in South Carolina. The Forests identified a need for assessment of their equestrian facilities to identify a configuration of facilities that meet the needs of the public and are financially sustainable. The USFS engaged PricewaterhouseCoopers ("PwC") to complete an assessment of its equestrian facilities on the National Forests in South Carolina and provide the USFS with the information necessary to recommend the appropriate role of the USFS in providing equestrian facilities in South Carolina. In addition to relevance for the subject Forests, the USFS Southern Region ("the Region") desires to use the assessment as a model for developing appropriate analysis processes when evaluating equestrian and other trail-oriented facilities in other Regional forests.

PwC visited each of the equestrian facilities on the subject Forests, talked with users of Forest facilities about their preferences and habits, and toured facilities and interviewed representatives of competitive/comparable operations. Our goal was to learn answers to the following key questions.

- Where are users located?
- What is the concentration of users in relation to existing equestrian facilities operated by the USFS, other public agencies, and private entities?
- How do visitors use the existing equestrian trails and facilities on the Forests?
- What are the preferences of equestrian trails and facilities users?

With the answers to these questions, PwC developed recommendations regarding:

- the degree to which the current Forest equestrian facilities match the needs and preferences of users;
- the ideal role for the FMS in the provision of equestrian facilities; and,
- how the FMS could better accommodate the needs and preferences of users in the context of market demand and other facilities in the area.

Summary of Findings

The following points summarize PwC's findings.

Horse Population

The three-state area of South Carolina, Georgia, and North Carolina is home to a horse population of more than 530,000. About 34 percent (180,000) of these horses are used for recreational riding, including trail riding. This three-state region is almost entirely within a six-hour driving radius of any of the existing FMS equestrian facilities. With the exceptions of Texas and California, the size of this region's horse population indicates that it has the potential to generate a greater economic impact on the trail riding market than any other single state.

Geographical Considerations

- The three primary South Carolina geographical regions have differing degrees of attraction and seasonality for equestrian users.
 - The coastal region experiences hot temperatures during much of the year, and has topography that is less diverse than other parts of the state.
 - The central, Piedmont region is also impacted by hot weather, although the topography of the area offers a bit more variety than the coast.
 - The mountainous northwestern area of the state benefits from its challenging, scenic topography and cooler summer temperatures.
- Based on information collected during the site visit, some equestrian users of FMS land in the coastal and Piedmont regions of the state consider hunting a significant deterrent to use due to safety concerns. During several months of the year, some equestrian users feel limited to riding on FMS lands only on Sundays, when hunting is banned in the state of South Carolina. Alternatively, users will ride and/or camp on private or state park land, where hunting is not allowed. Interestingly, in the mountainous region of the state, hunting does not appear to be a deterrent to equestrian use.

Day-Use and Overnight Preferences

- User preferences for facilities depend on their planned activity -- day-use or overnight:
 - Day-user profile:
 - Users prefer to drive the shortest distance possible between their homes and a trailhead. They prefer to have a riding experience that is at least as long as the drive to and from the trailhead. The maximum drive time for a day user is about three hours each way between home and trailhead. Shorter drives of approximately one hour are preferred.
 - Other than adequate parking and well-maintained trails, users appear to have little need for developed facilities. A water source would be a convenient amenity, but is not a necessity.
 - Trails should provide options for rides of 8-12 miles or less.
 - Overnight user profile:
 - Users are willing to drive between three and eight hours each way for an overnight trip to a quality trail system that allows for a long, diverse riding experience.
 - Users camping near equestrian trails prefer to have a variety of experiences over the course of their stay. Therefore, for overnight users, a longer, more diverse trail experience is important. This can be accomplished with a combination of distance and trail loops.
 - The overnight user group appears to be segmented in the following manner. For the purposes of this report, a "developed" campground implies water and utility hookups are available.
 - Short, 1- or 2-night stay: shorter trail distance (minimum 12 miles); lower level of developed facilities are adequate since many users are "self-contained," meaning that they have generators and are able to carry fresh water with them.

- Medium, 3- or 4-night stay: significantly longer trail distance (minimum 20 miles); developed facilities may become more important as transporting adequate water and fuel for a generator becomes inconvenient.
 - Long, 5 nights or longer: longer trail distances of at least 20 miles contained within a looped system (not point to point); high preference for developed facilities to promote comfort and convenience for a longer stay.
- No matter how developed the campground, it is necessary to have adequate facilities for securing horses at night. These facilities should be adjacent to each campsite, and can include something as simple as hitching posts for high-lining. There is a strong preference that horse corrals, hitching posts, or high lines be located very close to camping areas.

Trail Preferences

- Users prefer a trail tread made of soft dirt or sand. Gravel, rocks, or pavement are not preferable and may even harm horses. Trail tread preference appears to be universal to all riders.
- A safe trail experience is extremely important to users. A well-maintained trail tread with a well-marked trail is necessary for any rider. Depending on the group size and type of use, a wider or narrower trail tread may be preferred. Users riding in groups or with small children will likely prefer a wider trail tread to accommodate two riders side-by-side.
- Trail preferences can also depend on the user's preferred activity. For example, some equestrian users ride to enjoy being in the Forest and to relax. Appealing scenery and diverse topography are important to these users. Alternatively, riders training their horses for endurance competitions are interested in long trails with diverse topography, but are not as concerned about the aesthetics of the trail surroundings.
- Trail preferences can depend on the user's breed of horse. Horses that are naturally "gaited" (such as the Tennessee Walker) are faster, and therefore gaited horse owners prefer longer trail distances.

Competitive Market

- PwC's competitive market research found a diverse group of competitive equestrian facilities in South Carolina, Georgia, and North Carolina. While we did not complete in-depth interviews with representatives from all of them, it appears that there are additional, highly-developed facilities beyond the three-state area that attract users of South Carolina. Because of the diversity of their trails and high quality camping facilities, users are willing to drive long distances to these locations.
- Private facilities appear best-suited to offer highly-developed overnight accommodations if they are located to benefit from trails offered on public lands. Due to limited availability, the high investment requirement, and high carrying costs associated with owning an adequate amount of land necessary to support a large trail system, private facilities appear to primarily make use of proximate public lands (whether managed by the USFS or some other public agency) for their trails. Additionally, with one exception in North Carolina, none of the private facilities surveyed is able to be financially viable without offering other services such as lodging, guiding, hunting, or a restaurant.

Cost Recovery

- PwC's biggest challenge throughout the course of our research was collecting adequate, reliable data that could be used to assist the FMS with cost recovery benchmarks for its equestrian facilities.
- Public sector facilities provided some information on revenue collected, but were generally unable to provide detailed expense information.
- Private sector facilities use volunteers and bartering to offset capital and operating costs, thereby making their financial data potentially unreliable.

Conclusions and Recommendations

Since the USFS locations in South Carolina offer relatively short trail systems, the Francis Marion and Sumter National Forests appear best suited to be day-use equestrian providers. In addition, the South Carolina equestrian overnight use market appears to be well-served by both private and public operators.

The concentration of the horse population, the diverse topography and scenery, cooler weather, and apparent willingness to share space with hunters appear to make the northwestern mountains of South Carolina an ideal location for the provision of equestrian facilities that would receive the most usage. This area is currently served by the Rocky Gap horse trail on the Pickens Ranger District and the Willis Knob trail in the Chattahoochee-Oconee National Forest, across the Georgia border. There are also additional equestrian trails on the Chattahoochee-Oconee. Therefore, it appears that the area within a three-hour driving radius of the Pickens Ranger District is already well served for day-use equestrian activity.

It should also be noted that PwC was unable to collect any amount of information about the usage or operating revenues and costs of the trail facilities on the Francis Marion. Without information about current or historical usage of these trails, it is not possible to make a definitive recommendation about the continued operation, consolidation, or closure of these facilities. If the FMS begins to track usage of the trails on the Francis Marion, it will help to facilitate future decisions about whether to continue to operate these trails.

Given these factors, the FMS should prioritize its equestrian use funding in the following order:

1. **Enoree Ranger District Facility Consolidation:** Realign its current facilities and either close or change the management of either the Brickhouse campground or the Woods Ferry Campground. There are positive and negative aspects to each campground and their associated trail systems. It appears that closing one or the other of these campgrounds and trying to consolidate use into the other campground is justified from the perspective of the equestrian market but based on available data, PwC is unable to recommend which of the two should be closed. Effects on other users such as hunters, general campers, mountain bikers, or hikers were not evaluated for this report.

As an alternative to closure, the management model used at one of the two locations could be changed from an open use system to a reservation only system with a minimum occupancy requirement for equestrian use. This type of system has worked well for the Chattahoochee-Oconee National Forest at the Willis Knob campground.

2. **Long Cane Ranger District Facility Reduction:** Reduce the number of campsites at Fell Camp from 66 to between 20 and 30.
3. **Program Management:** Improve program management at all FMS areas by making wider use of tools similar to those used on the Enoree Ranger District. The Forests should consider tracking trail usage at all of its units. In addition, all units of the Forests should more diligently record usage of trailheads and campgrounds. Better data could help the Forests with future efforts to make well informed management decisions about its facilities and offerings to the public. Specific data points that should be tracked are:
 - By month, number of occupied site nights in each campground. If possible segment by type of user such as equestrian, hunter, general camper, etc. Additional segmentation by weekend, weekday, and holiday would be helpful.
 - Number of people per campsite
 - Number of horses per campsite
 - Length of stay for each group occupying a campsite

- Number of horses/riders on the trail each month. Could be done with a counter at the trailhead or on the trail. Even the use of a voluntary system whereby visitors drop a note in an iron ranger with the number in their party would be helpful.

The least costly way of collecting the above information is by relying on users to fill out fee envelopes or other forms with the appropriate questions on them. However, this type of information collection is open to inaccuracies through under/over-reporting. The USFS could work with its own statistical experts to conduct random samples in a statistically valid way to estimate use. This information could then be confirmed with available use data from fee collections and user submitted forms to arrive at a reasonable estimate for utilization.

4. **Charge Fees at Woods Ferry and Rocky Gap Trailhead:** These areas do not assess fees for day use activities. If the parking areas and amenities meet the requirements of the Recreation Enhancement Act, the USFS should charge the same fees at these areas as it does at others.
5. **Trail Maintenance:** The Forests should continue to maintain and repair its current inventory of equestrian trails.
6. **Day-Use Facility Maintenance:** Once realignment is completed, the USFS should continue to maintain the facilities that are still in use.

PwC cautions that while there may be demand for additional or expanded equestrian trails and day-use facilities on the FMS, there may be limited opportunity to recover the costs of this activity.

7. **Expansion of Day-Use Facilities:** Once realignment is completed, the USFS could expand the day use parking areas on the Enoree and Andrew Pickens Ranger Districts.
8. **Expansion of Trails:** If funds are still available after addressing all of the previous recommendations, the FMS should work to formalize some of the existing user trails near the Rocky Gap horse trail on the Pickens Ranger District. PwC cautions that the FMS should take this step only if it plans to follow a strict designated trails policy and plans to enforce that policy. Without active management, the problem of user created trails will likely continue.

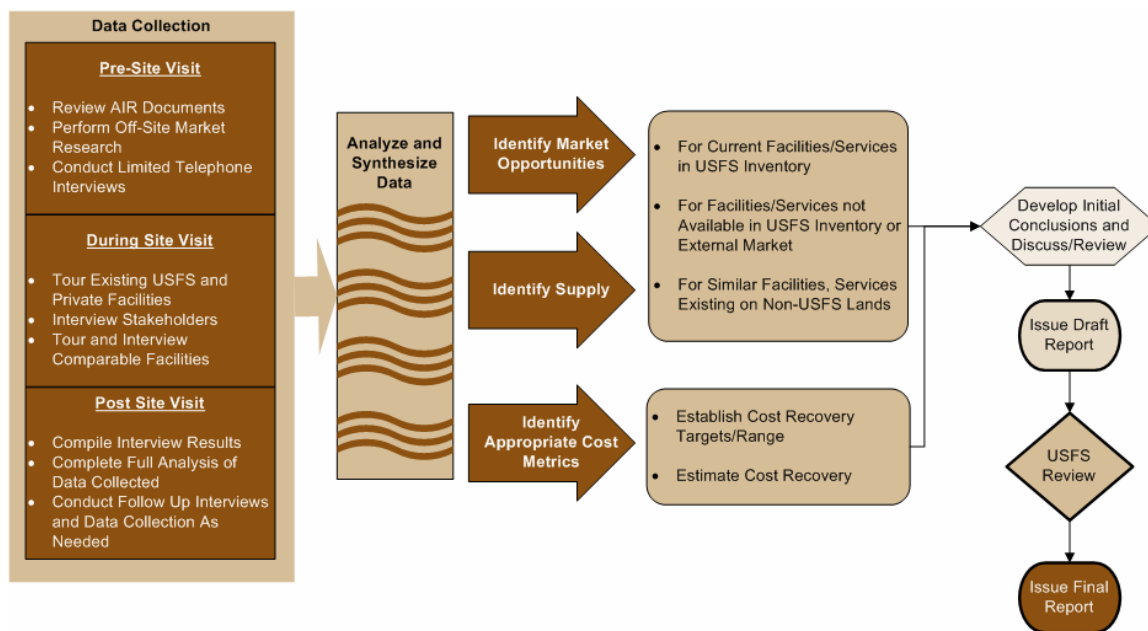
In addition to recommendations for funding the facility and program investments described above, PwC recommends that FMS works more closely with South Carolina State Parks, Georgia State Parks, North Carolina State Parks, the Chattahoochee-Oconee National Forest, other National Forest and National Park Service units in North Carolina, Georgia, and Tennessee, and the South Carolina Horsemen's Council to form a "working group" dedicated to equestrian use of public lands in South Carolina.

The group would foster a forum for discussing various members' roles in providing opportunities for trail riding. All members would essentially be working together to meet the needs of the equestrian community. Improved communication could allow group members to learn each other's respective niches for equestrian use (thereby driving business to whomever is best suited to accommodate it), and share best practices. Finally, the group could conduct a larger scale study of the southeastern U.S. trail riding industry, including trail rider demographics, revenues, cost metrics, and user attitudes and preferences.

2. PROCESS AND REPORTING

PwC developed its analysis framework to match the scope and focus of this engagement. The exhibit below outlines this framework and the following pages provide the findings resulting from this framework.

Exhibit 1 - Process and Reporting Framework



Site Visit

PwC began its analysis of the Francis Marion and Sumter National Forests' equestrian facilities by conducting a site visit to South Carolina in November 2005. During the site visit, PwC personnel:

- visited the Francis Marion National Forests and each of the three Ranger Districts (Enoree, Long Cane, and Andrew Pickens) of the Sumter National Forests;
- toured equestrian facilities in these locations;
- interviewed management and field personnel;
- visited competitive and comparable equestrian facilities proximate to the USFS locations; and
- conducted user meetings to gain feedback from USFS equestrian facility users.

Analysis and Reporting

PwC analyzed the operational, market, and financial data collected before, during, and after the site visit. These data were analyzed and synthesized to identify current equestrian facility supply, market opportunities, and appropriate cost metrics for such facilities. Conclusions drawn from this process served as a component of PwC's recommendations to the USFS.

The following report presents a summary of the findings from the data gathering and synthesis phases of PwC's work, including:

- a profile of the equestrian community today;
- a presentation of the current equestrian facility and trail situation on the Francis Marion and Sumter National Forests;
- a summary of interviews with representatives from comparable/competitive facilities visited;
- conclusions developed from the initial phases of research; and
- recommendations for next steps for the Forests and the USFS Southern Region.

3. PROFILE OF THE EQUESTRIAN COMMUNITY

To estimate the demand for equestrian facilities on the Francis Marion and Sumter National Forests, it was necessary to analyze the significance of recreational and trail riding and the most popular breeds used for trail riding to get a sense for use characteristics. The following section provides an overview of recreational riding in the United States (including breeds used), followed by a focus on the USFS Southern Region and South Carolina.

U.S. Equestrian Industry and Recreational Riding

Impact of Recreational Riding

In 2004, the American Horse Council Foundation ("AHCF") commissioned a study entitled *The Economic Impact of the Horse Industry on the United States*. The goal of the study was to measure the economic impact of the equestrian industry in the United States. The study's results were based on a survey of horse owners and industry suppliers. Survey respondents were asked to summarize their equestrian activity, number of horses owned, and financial information related their equestrian activity.

According to the study, there are more than 9.2 million horses in the U.S. The U.S. equestrian community participates in a diverse number of activities, ranging from racing, to competitive showing, to informal leisure riding. The study summarizes the activity of equestrian enthusiasts across the country, and estimates the economic impact of the entire industry as well as that of several activity types (categorized as racing, showing, recreation, and other). Trail riding is classified under recreation, the most popular category of equestrian activity. According to the AHCF study, recreational equestrian use accounts for:

- 42 percent of the total U.S. horse population;
- 31.5 percent of the total equestrian-related impact on the U.S. GDP; and
- 31 percent of total equestrian-related employment.

In all cases, the recreation activity category has the greatest economic impact (when compared with other activity categories). This is significant, because while other activity categories, such as racing and showing, may be higher profile in nature, the greatest proportion of horses is devoted to equestrian recreation. Unfortunately, the study did not separately quantify information related to trail riding-related activity.

Types of Recreational Riding

As noted above, recreational riding includes trail riding. Trail riding is generally split between leisure trail riding and distance riding. These two broad distinctions are further segmented into four unique activities.

Leisure trail riding includes horse rentals, horse owners riding their horses on public and private trails located near their homes, or larger group trail rides organized by horse councils. Most trail riding participants are leisure trail riders.

Distance riding, however, is competitive in nature. Competitive Trail Riding and Endurance Riding are the most popular types of distance riding. As with other types of "extreme" sports, distance riding is becoming increasingly popular.

Competitive Trail Riding is not a race. Participants must complete a set number of miles of trail within a specified time period, although speed is not a judging factor. Instead, horse and rider are judged on the manner in which they conduct themselves in all activities related to trail riding (including skills on the

actual trail ride, condition and soundness of the horse, and the manner in which the participant maintains his or her campsite). Almost any breed of horse can be used for Competitive Trail Riding.

Conversely, Endurance Riding *is* a race, with horses covering as many as 100 miles in a single 24-hour period. There are also Endurance Rides that are several days long, and horse and rider travel as much as 50-miles each day. The soundness of the horse is checked throughout an Endurance Ride, and the horse and rider finishing with the fastest time win. The terrain of Endurance Rides is often very rough and either hilly or mountainous. To participate in Endurance Riding, a horse must be extremely athletic, with a great deal of stamina. This requires a regimen of regular training over long distances and challenging terrain.

Demographics of the Equestrian Trail User

Despite a thorough search of industry information, PwC was unable to find any definitive, detailed studies of the demographics of trail riders. PwC did identify two potential sources of basic information.

Trail Blazer magazine is a publication serving the trail riding community around the U.S. The magazine conducted a survey of its readership in 2005 and found that its readers had the following characteristics.

- The average age of a Trail Blazer reader is about 46, with 70 percent of Trail Blazer readers between the ages of 30 and 59.
- Most readers are women, professionals, homeowners, and have an average household income of about \$72,000.
- About 50 percent of Trail Blazer readers own at least two, but not more than four horses.

The Center for Agribusiness and Economic Development and the Whitman County, Georgia Extension Service completed a small study of trail riders in Georgia. However, their sample size consisted of only 153 survey respondents. According to the AHCF report, there are more than 179,512 horses in Georgia. Even if one applies the national average proportion of recreational horses (34 percent) and assumes that every recreational horse owner owns two horses, the sample size of 153 people represents less than one percent of the total horse owner population of Georgia. Therefore, PwC did not consider the results of the study reliable.

Public lands with equestrian opportunities in the south central United States (including areas such as southern Missouri, northern Arkansas, Tennessee, and other areas) have experienced increased use from the trail-riding community. The recent "Right-to-Ride" legislation has also signaled that there may be increasing pressure from equestrian users to continue to use or expand use of trails on public lands. These factors have resulted in the formation of a joint "forum" of National Park Service and USFS land managers. The purpose of the forum is to discuss the increased use of public lands by equestrian enthusiasts. The current contact for this forum is Ron Switzer, Superintendent of Buffalo National River, a unit of the National Park Service. Much like PwC, forum participants were unable to find any studies on trail rider demographics, usage, and preferences. Therefore, the forum identified a need for a nationwide study of the trail riding community. PwC recommends that the FMS continue to monitor the status of this forum and participate as appropriate.

USFS Southern Region Equestrian Industry and Recreational Riding

According to the AHCF study, about 40 percent of the total estimated horse population of the U.S. is located in states within the Southern Region of the U.S. Forest Service. The following exhibit presents the total number of horses in each state of the Southern Region. Texas has the most horses of any state in the U.S., with 40 percent more horses than the state with the next highest horse population, California.

Of all the Southern Region states, South Carolina has the smallest horse population. Although South Carolina's horse population alone is relatively small, the three-state region of South Carolina, Georgia, and North Carolina has a total estimated horse population of more than 530,000. Much of this area is within a six-hour driving radius of each of the FMS equestrian facilities. This large population within a relatively small area implies a significant demand base for equestrian trails. This concept will be explored in depth later in this report.

Exhibit 2 - Number of Horses by State, U.S. Forest Service Southern Region

State*	Total Horses	Rank in U.S.	Percent of Southern Region	Percent of Total U.S.
Alabama	148,152	30	4.0%	1.6%
Arkansas	168,014	24	4.5%	1.8%
Florida	500,124	3	13.5%	5.4%
Georgia	179,512	20	4.9%	1.9%
Kentucky	320,173	5	8.7%	3.5%
Louisiana	164,305	26	4.4%	1.8%
Mississippi	113,063	35	3.1%	1.2%
North Carolina	256,269	8	6.9%	2.8%
Oklahoma	326,134	2	8.8%	3.5%
South Carolina	94,773	37	2.6%	1.0%
Tennessee	206,668	14	5.6%	2.2%
Texas	978,822	1	26.5%	10.6%
Virginia	239,102	12	6.5%	2.6%
Total	3,695,111	--	100.0%	40.1%

*Though it is part of the Southern Region, Puerto Rico was not included in the American Horse Council Foundation's study.

Source: American Horse Council Foundation

In addition to reporting overall results for the entire U.S., the AHCF study also published results specific to several states that provided financial assistance for the study. Of the Southern Region states, state-level reports were available for Florida, Kentucky, Louisiana, Oklahoma, and Texas. On average, about 34 percent of horses in these states are used for recreational purposes. The heavier emphasis on the racing industry in Kentucky and Florida, and the showing industry in Florida, likely brought down the recreation average somewhat for the Southern Region states. The following exhibit presents information from the AHCF report specific to the Southern Region states that participated in the study.

Exhibit 3 - Number of Horses by State, U.S. Forest Service Southern Region

	Total Horses	Recreational Use	Percent of State's Total Horses	Quarter Horses	Quarter Horse Percent of State's Total Horses
Louisiana	164,305	58,793	35.8%	89,768	54.6%
Oklahoma	326,134	113,776	34.9%	191,253	58.6%
Florida	500,124	160,696	32.1%	93,799	18.8%
Kentucky	320,173	100,185	31.3%	59,238	18.5%
Texas	978,822	340,383	34.8%	453,563	46.3%
Southern Region Participant Total	2,289,558	773,833	33.8%	887,621	38.8%

Source: American Horse Council Foundation

South Carolina Equine Census

The South Carolina Department of Agriculture recently sponsored an equine census for the state of South Carolina. Conducted by the South Carolina Agricultural Statistics office of the U.S. Department of Agriculture's National Agricultural Statistics Service ("SCNASS"), the survey counted the total number of horses, by breed, in South Carolina as of December 31, 2004. The survey also collected information about the primary use of horses, expenses related to caring for horses, and the value of horses and equine-related assets.

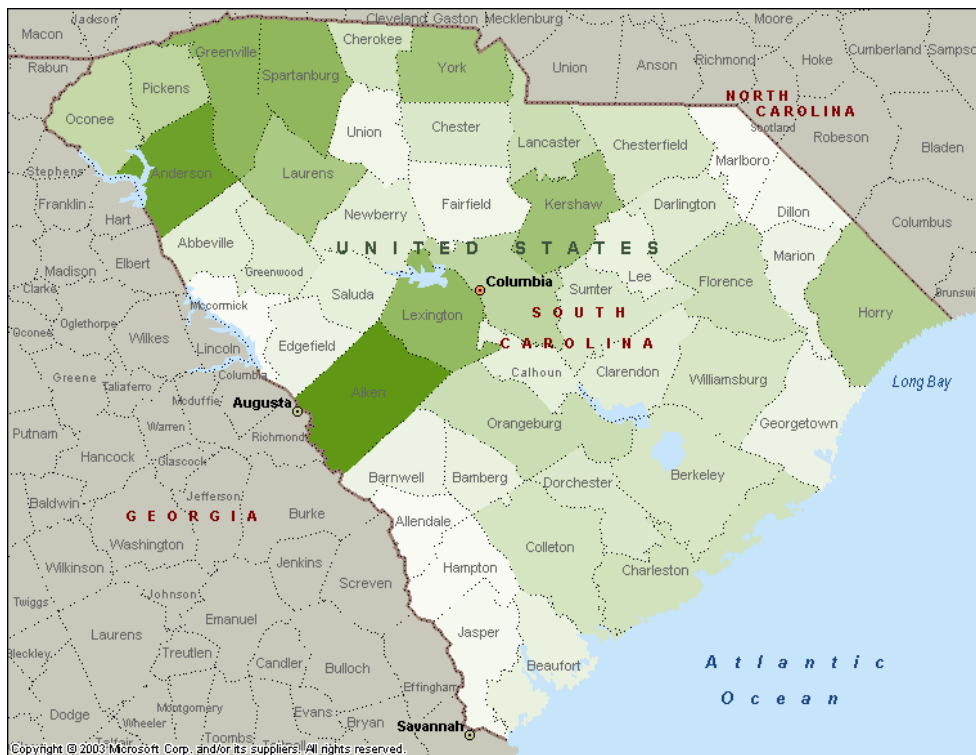
The following points summarize the key findings of the South Carolina Equine Census.:

- There are a total of 84,000 horses in South Carolina. Though this differs from the American Horse Council Foundation report, it is within 20 percent of the AHCF estimate. The ten counties (listed in Exhibit 4) with the largest equine population contain approximately 50 percent of all the horses in the state.
- The northwestern area of the state contains the highest concentration of horses. There is another significant concentration across the western-central area of South Carolina.

The following chart and map present the top ten counties with the highest horse population and the concentrations of horses, by county, in South Carolina. The horse population is highest in the counties with the darker green shading.

Exhibit 4 - South Carolina Breed Representation

County	Number of Horses
Aiken	6,500
Anderson	6,000
Greenville	4,600
Spartanburg	4,600
Lexington	4,400
Kershaw	3,900
York	3,700
Laurens	3,400
Horry	3,000
Pickens	2,700



Source: South Carolina Department of Agriculture, Microsoft MapPoint

According to the SCNAASS study, about 60 percent of horses in South Carolina are used for pleasure/recreation. This proportion differs significantly from the national average estimated in the AHCF study. For the purposes of this study, PwC assumed that the proportion of South Carolina horses used for recreation is closer to the national average presented in the AHCF study. However, even if the higher figure (60 percent) is correct, the current trails facilities appear to have enough capacity to accommodate the current estimated number of riders.

The Quarter Horse is by far the single largest breed population in South Carolina. It is also the most popular breed used in trail riding. About 33 percent of all horses in the state are Quarter Horses (this

figure more closely matches the AHCF national estimate of about 38 percent). Gaited horse breeds are the next most popular breed, followed by Paint Horses, Thoroughbreds, and Arabians/Half-Arabians. While the Thoroughbred breed population is higher than Arabians/Half-Arabians, the majority (about 80 percent) of South Carolina Thoroughbreds are used for racing or showing. The following exhibit summarizes the top breeds in South Carolina.

Exhibit 5 - South Carolina Breed Representation

Total Population	
Total South Carolina Equine Population	84,200
Total Recreation-Use Population	50,300
Percent of Horses Used for Recreation	59.7%

Breed	Total	Percent of Total Horse Population	Pleasure/Recreation Use	Percent of Total Recreation-Use Population
Quarter Horse	27,400	32.5%	18,550	36.9%
Tennessee Walker, Saddlebred, Other Gaited Breeds	10,900	12.9%	7,430	14.8%
Paint Horse	7,500	8.9%	4,520	9.0%
Thoroughbred	7,100	8.4%	1,530	3.0%
Arabian and 1/2 Arabian	4,200	5.0%	2,680	5.3%

Breeds most often used for trail riding.

Source: South Carolina Dept. of Agriculture

Later on in this report, PwC will present comparisons of the South Carolina equine population in relation to the USFS equestrian facilities and other comparable/competitive facilities studied. The high population of horses of breeds typically used for trail riding, the overall large proportion of horses used for recreation, and the areas of horse population concentration imply that there may be market demand for equestrian trails and support facilities. Unfortunately, this level of information detail is available only for South Carolina. Although detailed equine census information was not available for states other than South Carolina, the horse population data for the border areas of North Carolina and Georgia are likely similar to the adjacent areas in South Carolina.

South Carolina Trail Rider Demographics

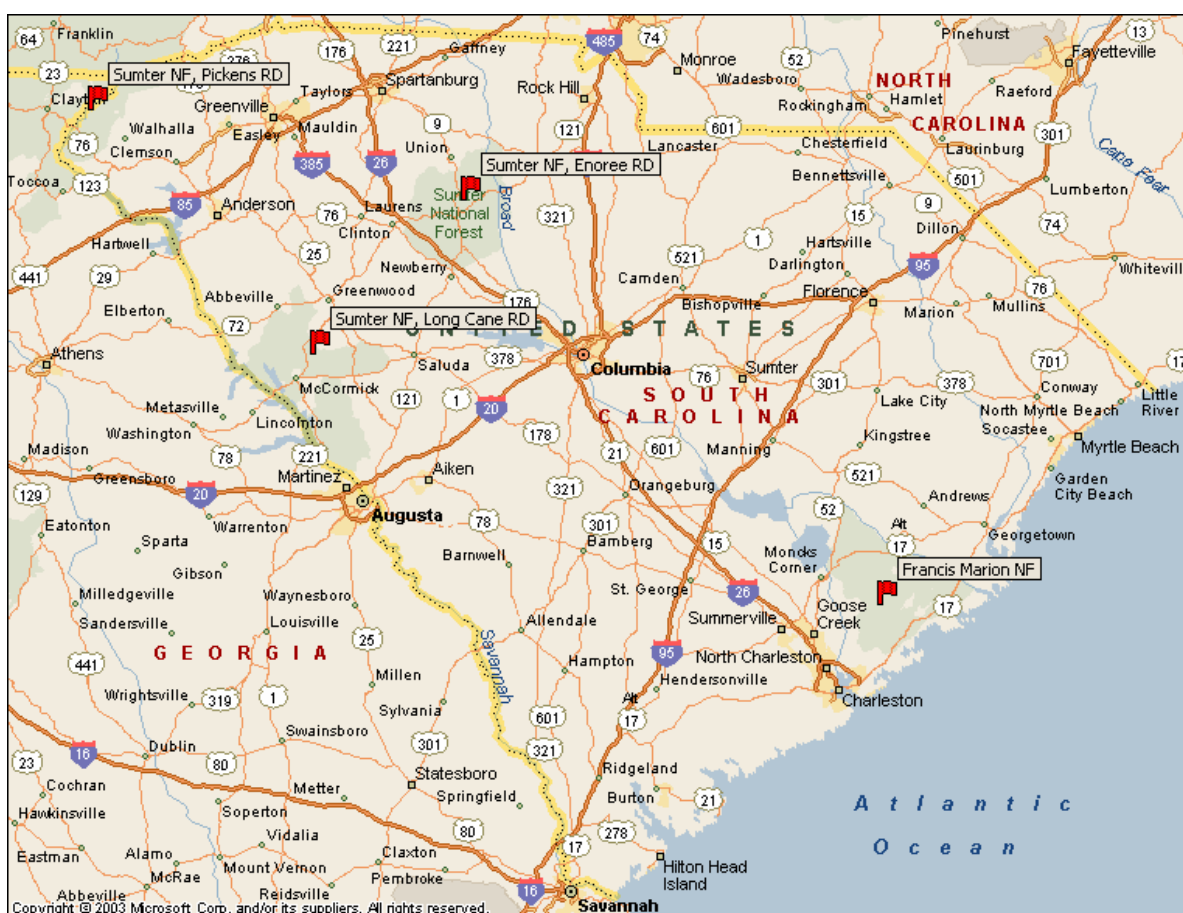
As previously mentioned, PwC was unable to locate reliable demographic information for the trail riding community. While the study conducted by the Center for Agribusiness and Economic Development and the Whitman County, Georgia Extension Service may be considered to have information about the "local" trail riding community that could be translated to South Carolina, the study's small sample size makes the validity of the results questionable.

4. CURRENT SITUATION OF FRANCIS MARION AND SUMTER NATIONAL FORESTS' EQUESTRIAN FACILITIES

Spread across the state of South Carolina, the Francis Marion and Sumter National Forests provide diverse opportunities for recreational riding. This section provides an overview of the current facilities offered on the Forests and usage information, where available.

The following map of South Carolina presents the locations of the Francis Marion National Forest and the three ranger districts that make up the Sumter National Forest. Maps presented later in this section will show the locations of the equestrian trails and facilities on the Francis Marion and each of the Sumter's Ranger Districts.

Map 1 - Francis Marion and Sumter National Forests



Source: USFS, Microsoft MapPoint

Exhibit 6 summarizes the equestrian amenities available at each of the FMS units.

Exhibit 6 - Francis Marion and Sumter NF Equestrian Facilities

Ranger District	Location	Miles of Trails	Loops	Number of Campsites	Amenities
Francis Marion	Tuxbury Trail	14	Yes	None	Trailhead parking
	Jericho Trail	19	Yes	None	Primitive trailhead, limited parking
Enoree	Brickhouse	N/A	N/A	23	Long-term camping allowed; restrooms, grills
	Woods Ferry	N/A	N/A	30	Stalls at some campsites, restrooms with hot showers, central water, cooking grills
	Buncombe Trail	31.5	Yes	N/A	Bathroom
	Woods Ferry Trail	9	Yes	N/A	Trailhead parking
Long Cane	Fell Camp	N/A	N/A	66	Long-term camping allowed; central water; tie/hitching areas, vault toilets grills
	Long Cane Horse Trail	27.55	Yes		Water, hitching area, vault toilets, picnic pavilion
Pickens	Whetstone Camp	N/A	N/A	20	Central water, toilets, cooking grills, tie stalls, hitching rails
	Rocky Gap Trail	12.5	Yes	N/A	Trailhead parking

Source: USFS

Francis Marion National Forest

Located approximately 10 miles northeast of Charleston, SC, the Francis Marion National Forest covers more than 252,000 acres in Berkeley and Charleston counties. Limited camping opportunities as well as canoeing, hiking, biking, and equestrian trails allow visitors to experience the marsh and swamp areas that make up much of the Francis Marion and are typical of the "Low Country" region of South Carolina.

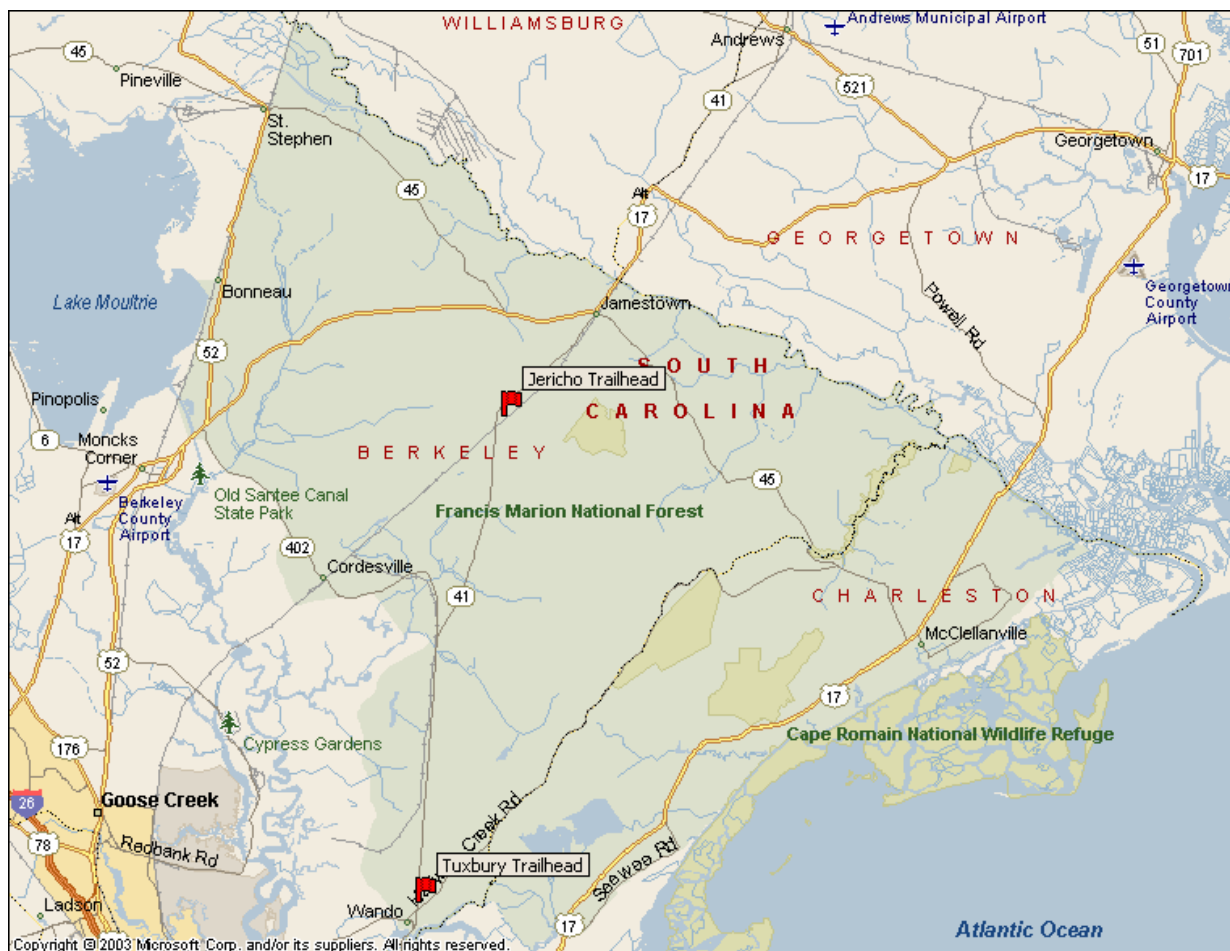
The following exhibit summarizes the equestrian facilities available on the Francis Marion.

Exhibit 7 - Francis Marion NF Equestrian Facilities

Facilities	Miles of Trails	Loops	Day-Use Parking?	Equestrian Camping?	Number of Sites	Amenities
Tuxbury Trail	14	1	Yes	No	--	Trailhead parking
Jericho Trail	19	2	Limited	No	--	Trailhead parking

Source: USFS

The following map presents the locations of the Tuxbury and Jericho Trails on the Francis Marion

Map 2 - Location of Francis Marion Equestrian Facilities

Source: USFS, Microsoft MapPoint

Campgrounds

There are no campgrounds available for equestrian use on the Francis Marion NF.

Trails

There are two equestrian trails on the Francis Marion NF: the Tuxbury horse trail and the Jericho horse and hiking trail.

The Tuxbury trail is comprised of at least two loops and is 14 miles long. The trail may be used by equestrians, hikers, and mountain bikers. The trail benefits from the variety of habitat types on the Francis Marion, including wetlands and pine stands. The Tuxbury trail is serviced by a trailhead with a large parking area. There is no fee to park at the Tuxbury trailhead, and there are no amenities or services.

The Jericho trail is one, continuous 19-mile loop. The trail may be used by equestrians, hikers, and mountain bikers. The trail traverses similar habitats and terrain similar to that of the Tuxbury trail. The

Jericho trail is serviced by only a primitive trailhead with very limited parking. There are no amenities or services.

In addition to use of the trailheads for both the Tuxbury and the Jericho, apparently many users of these trails access them by riding onto the forest from private land.

Because fees are not collected for the Francis Marion NF equestrian facilities, and trail counter information is not available, no trail usage information is available for either the Tuxbury or the Jericho horse trails. Discussions with the USFS also indicated the trails receive only light use.

Summary of USFS Information

PwC analyzed two key reports for the Francis Marion and each Ranger District on the Sumter National Forest:

1. **Recreation Operational Efficiency Workshop Findings:** This report summarizes the findings of a workshop held for the Francis Marion and Sumter NF in November 2003. The goal of the workshop was to:
 - o measure the progress of the Forests since its alignment workshop (held in December 2001);
 - o evaluate the Forests' expenditures against its demand and revenue collected; and
 - o recommend ways that the Forests could better serve visitors and protect resources without increased funding.
2. **Ranger's Choice:** This report presents revenue and cost information for each of the developed facilities on a forest. Ranger's Choice is conducted on a more frequent basis than Operational Efficiency Workshops. The information presented in this report is from a Ranger's Choice forum completed in July of 2004. Ranger's Choice information was not available for the Francis Marion. Ranger's Choice data was the only operating information available to PwC for its analysis for the Long Cane and Pickens Ranger Districts. The Enoree Ranger District was able to provide additional revenue, expense, and utilization data to augment the Ranger's Choice information.

For the remainder of this section, we will present the key findings from these reports.

Recreation Operational Efficiency Workshop Findings

The workshop results question:

- the cost-effectiveness of managing two equestrian trails on Francis Marion that may have unequal use.
- if limited use of the trail, limited trail miles, limited expansion potential, and lack of natural attraction prevent or preclude demand and thus the need for overnight horse camp development.
- if development should only be considered if the private sector is interested in developing and operating.

Ranger's Choice

No Ranger's Choice information provided for the FM National Forest.

Sumter National Forest

Enoree Ranger District

Covering 161,216 acres across five South Carolina counties, the Enoree Ranger District ("Enoree RD") is located in the north-western area of the state, between Columbia and Greenville. The Enoree offers examples of rolling hills and forests typical of the Piedmont region of South Carolina. Three rivers run through the Forest, allowing opportunities for fishing and other water-based recreation. In addition, the Enoree offers hiking, camping, and other recreational activities. Old cemeteries and plantation sites are viewable from parts of the more than 130 miles of trails traversing the Enoree RD.

The following exhibit summarizes the equestrian facilities available on the Enoree RD of the Sumter National Forest.

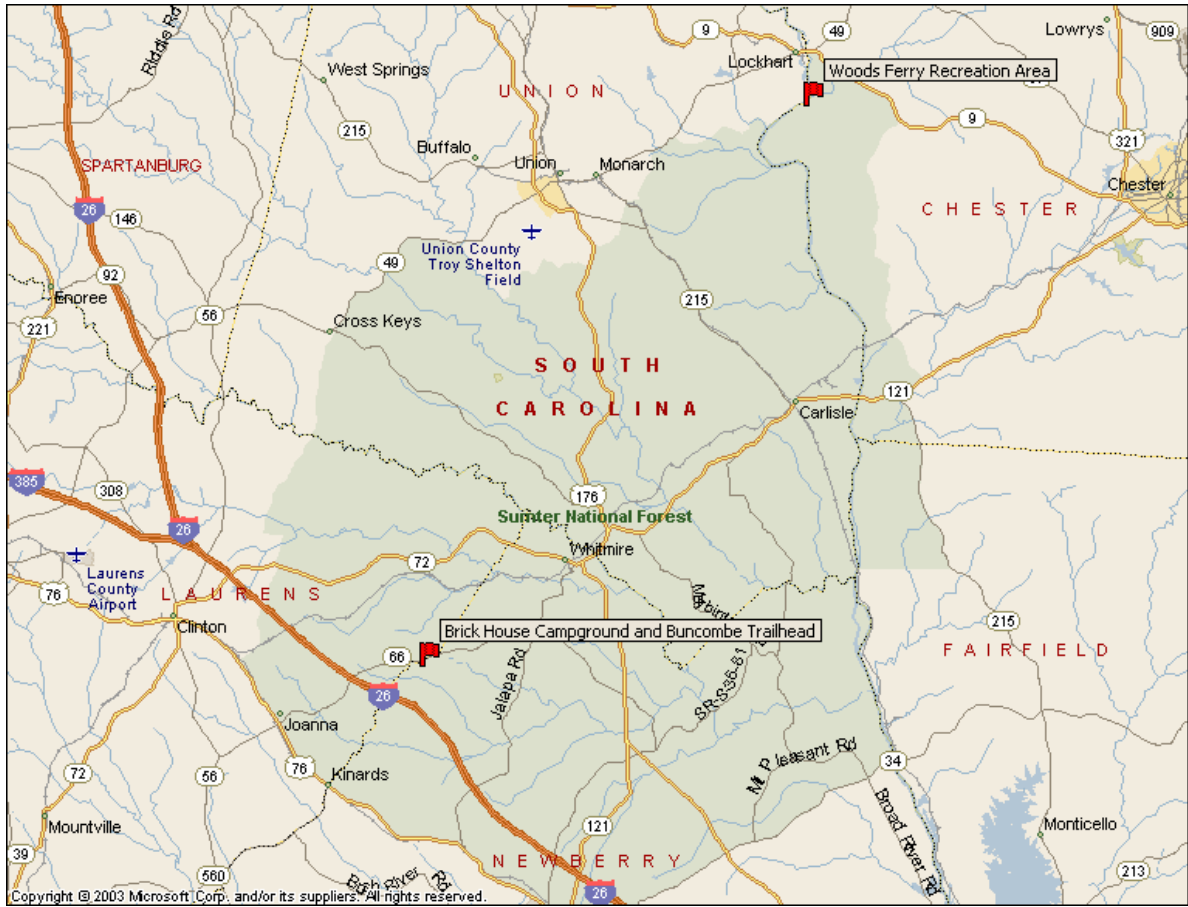
Exhibit 8 - Enoree RD Equestrian Facilities

Facilities	Miles of Trails	Loops	Day-Use Parking?	Equestrian Camping?	Number of Sites	Fees	Amenities
Buncombe Horse Trail	31.5	Yes	Yes	Yes, at Brickhouse	--	Day Use Parking: \$3/day; \$25 per year	Parking, bathroom
Brick House Campground	--	--	--	Yes	23	\$5/night	Long-term camping allowed; restrooms, grills
Woods Ferry Recreation Area	9	Yes	Yes	Yes	30	No Fee for Parking, Camping is \$7/night for family site; \$14/night for group site	Trailhead parking, stalls at some campsites, restrooms with hot showers (seasonal), central water, cooking grills

Source: USFS

The following map presents the locations of the Buncombe, Brick House, and Woods Ferry equestrian facilities on the Enoree RD of the Sumter NF.

Map 3 - Location of Enoree RD Equestrian Facilities



Source: USFS, Microsoft MapPoint

Campgrounds

The Enoree RD offers two campgrounds that can be used by equestrians: the Brick House campground and a campground in the Woods Ferry recreation area.

The Brick House campground is used by participants of a variety of activities, including hunters and equestrian enthusiasts. The campground consists of 23 sites arranged in a large loop. There are no corrals or stalls available for equestrian users, but campers with horses may erect tie-lines to secure horses at night. Vault toilet restrooms are available for campers, but there are no shower facilities. Long term camping is allowed at the campground (users may pay a monthly or seasonal fee), and hunters primarily take advantage of this opportunity. The campground has been without water since its well went dry in 2004.

The Woods Ferry campground has 30 sites, including two group sites. The sites are arranged in two loops. There are a total of 17 corrals available across eight of the campsites. Users also erect tie lines for securing horses in the evenings. A local equestrian group was responsible for constructing the corrals, and the group continues to maintain them. Ranger District officials report satisfaction with the way in which the volunteer group is maintaining the corrals. The campground offers flush toilets and hot showers during the warmer months. Central water is available throughout the campground.

*connectedthinking

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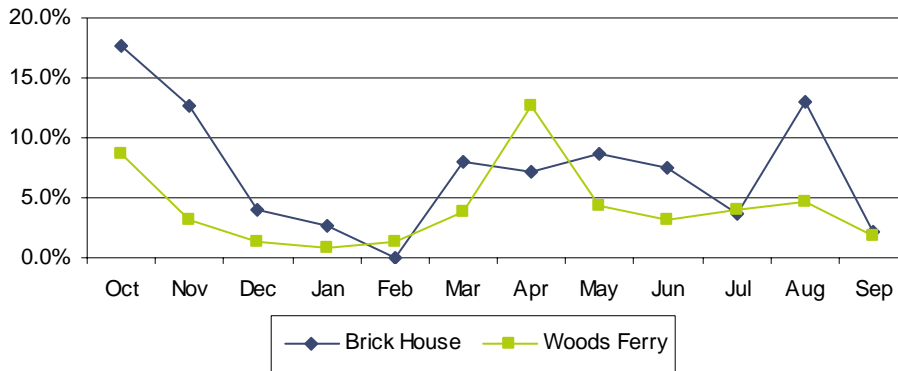
While PwC was able to collect only limited usage data for most of the Francis Marion and Sumter NF, the Enoree RD provided more information on the usage and revenues of its equestrian facilities. Representatives of the Enoree RD report that the Brick House campground has experienced a decline in occupancy since the campground's well went dry. Apparently, equestrian-related occupancy has especially suffered. Occupancy information for 2005 was not available, so PwC was unable to assess the degree of decline.

The following exhibit presents annual occupancy for 1998 through 2004 and monthly occupancy for 2004. Overall, occupancy is very low and is not sufficient to indicate that the campgrounds are ever full, even on weekends. Monthly data for 2004 indicates a peak monthly occupancy of 17 percent at Brick House and 14 percent at Woods Ferry. To be 75 percent full on weekends only (not including additional occupied days during the wee) would yield a monthly occupancy level of 20 percent ((75 percent x 8 weekend days)/30 total days). Occupancy levels shown include *all* occupancy for the campgrounds (including occupancy related to hunting, equestrian, and other reasons). Higher occupancy during the fall months is likely partially explained by the larger hunting demand during those months.

Exhibit 9 - Enoree RD Campground Occupancy and Revenue

Year	Brick House		Woods Ferry	
	Occupancy	Revenue	Occupancy	Revenue
1998	6%	\$2,485	3%	\$1,688
1999	8%	\$3,090	3%	\$2,135
2000	7%	\$2,424	4%	\$2,722
2001	6%	\$2,269	5%	\$3,277
2002	5%	\$2,129	5%	\$3,318
2003	6%	\$2,219	4%	\$2,798
2004	8%	\$3,041	5%	\$3,171

2004 Campground Occupancy



Source: USFS

The preceding chart and table indicate that overall occupancy is highest during hunting season and during April and August. Usage is also lower in the hottest and coldest months. These factors combine to limit the appeal of the campgrounds to equestrian users to just a few months.

The following exhibit presents a summary of the average occupancy and rate for the Brick House and Woods Ferry campgrounds for 2004. The average rate (calculated by dividing total revenue collected by occupied nights) is relatively close to the nightly camping fees for a regular site at Brick House (\$5.00)

and Woods Ferry (\$7.00). This may be because the Ranger District is counting occupied nights by counting fee envelopes (rather than taking a periodic visual count of how many sites are occupied).

Exhibit 10 - Enoree RD Campground Average Rate, 2004

	Brick House	Woods Ferry
Total Sites	23	30
Available Nights	8,395	10,950
Occupied Nights	653	493
Occupancy	7.8%	4.5%
Total Revenue Collected	\$3,041.16	\$3,171.26
Average Rate	\$4.66	\$6.43

Source: USFS

Overall, while we were not able to collect daily occupancy figures, the resultant monthly occupancy figures would appear to indicate that these campgrounds are never at capacity, not during the week or on the weekends. Due to low occupancy of the existing campsites and their close proximity to one another (+/-36 miles, 1 hour drive-time), PwC recommends closing one of the two campgrounds and attempting to consolidate use at the remaining campground. At this time PwC is unable to recommend which campground should be closed because the sites are performing similarly and this study did not consider the impacts upon other user groups. Both sites have positive and negative attributes and similar utilization. A comparison of the two sites is provided below.

Exhibit 11 - Comparison of Brick House and Woods Ferry Sites

	Brick House	Woods Ferry
# of Sites	23	30
Occupied Nights (avg. 2002-2004)	530	510
Corrals	No	Yes
Restrooms	Vault toilets	Flush toilets
Showers	No	Yes (April 1 to Oct. 31)
Drinking water	No	Yes
Group sites	None	2
Horse Trail	31.5 miles with multiple loops	14 miles with loops
Estimated number of trail riders per year (avg. for 2004 & 2005)	1,700	2,250

Because the numbers of occupied site nights are so similar at the two sites and the amenities are substantially different, it appears unlikely that campground occupancy could be increased by improving the campground and related amenities. The appeal of both locations for equestrian use is constrained by the hot summer climate and hunting in the fall. Based on available data, it is unknown whether or not the shorter length of the trail at Woods Ferry is a deterrent to overnight use. To make this judgment, segmentation data of overnight users is needed.

Additionally, the state offers highly-developed overnight camp sites with equestrian facilities at nearby Croft State Natural Area for use by those riders seeking an overnight experience in the area without the presence of hunters, thereby reducing any negative impacts to the equestrian community. Croft State Natural area is approximately 45 miles (1 hour drive) from Brick House and 30 miles (45 minute drive) from Woods Ferry.

Trails

There are two equestrian trails on the Enoree RD: the Buncombe Horse Trail and the Woods Ferry Horse Trail.

The Buncombe trail offers two trailheads and 31.5 miles of trail with a few loops. The trail may be used by equestrians, hikers, and mountain bikers. In addition to the designated trails, there are several user-made trails creating smaller loops within the designated USFS trail system. The trail is serviced by a large, grassy trailhead with a restroom, and a \$3.00 parking fee is in effect at all times. The main trailhead used by horsepersons is located at the extreme southern portion of the trail reportedly resulting in heavier use of the southern loops of the trail. Use of the northern loops would result in too long of a ride for a day-use rider that is parked at the trailhead. A portion of the gravel and clay trail is connected to the Palmetto Trail, a state-wide trail project that will eventually link western South Carolina to the ocean to the east of the state. Portions of the trail are located in pine forests on ridge tops which tend to be warmer than hardwood/mixed hardwood stands in the lower lying areas. The Enoree RD reports that it has been difficult to attract volunteer groups to assist with trail maintenance, and RD budgets only allow for regular maintenance of the most used trail loop.

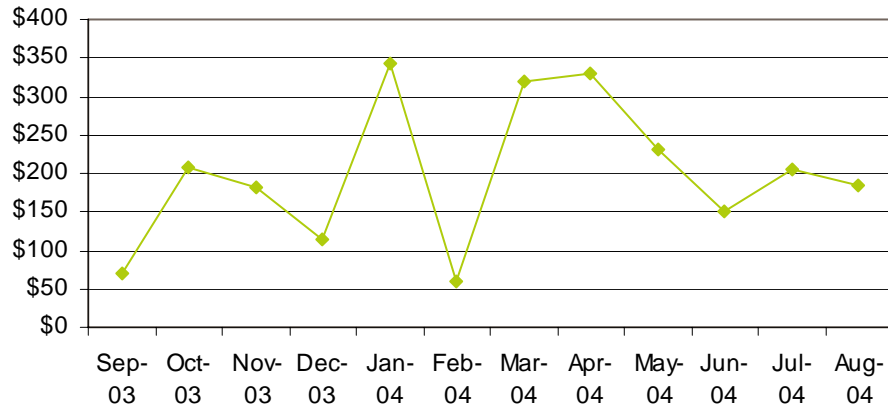
The Woods Ferry trail only offers about nine miles of trail, but with the trail's series of loops, up to 14 miles of riding are possible, making it a primarily day-use destination. The trail is serviced by a small trailhead (maximum capacity of 5 trailers) for which no fee is charged. The trail may be used by equestrians, hikers, and mountain bikers. The relatively short trail system has reportedly resulted in numerous user-created trails, and there is apparently demand for additional parking. The same equestrian club that performs maintenance on the Woods Ferry camping area also does much of the Woods Ferry trail maintenance.

The Enoree RD recently began recording trail usage. The Buncombe trail had approximately 1,752 users in 2004 and 1,729 users in 2005. Both years' usage figures average about 33 riders per week. The Woods Ferry trail had 2,187 users in 2004 and 2,400 users in 2005. These usage figures translate to an average of 42 users per week in 2004, and 46 users per week in 2005. The usage counts are provided by counters mounted on the trails. Because of varying entry points and loops, the usage counts may not capture all trail users. In addition, animals passing by the trail counters may be counted. However, the shorter trail (Woods Ferry) with a smaller parking area has more riders than the larger Buncombe trail system. The specific reasons for this are not known however the lack of a fee at Woods Ferry may be a contributing factor.

Based on fee data for FY 2004, the Buncombe trail is most used during January, March, and April. Use is lowest during September, December, and February. Equestrian users in this area of South Carolina reportedly do not feel comfortable using National Forest trails during hunting season. Hunting is banned on Sundays in South Carolina, making it the only day of the week equestrian users feel is safe to ride. In addition, the months of May through August typically are very warm. The limitations of hunting and weather mean that much of the equestrian use of the Buncombe and Woods Ferry Trails is limited to the three months of January through March. If we assume that 65 percent of the 2005 equestrian usage occurs during these months, then the months of January through March saw about 100 riders per week on the Buncombe trail, and about 130 riders per week on the Woods Ferry trail. If the USFS desires to increase equestrian use during hunting season, they should approach the South Carolina Department of Natural Resources with a proposal that would make the area more appealing to equestrians concerned with safety during the hunting period. The following chart presents Buncombe Trail fee revenue by month

for 2004. Assuming that compliance is consistent across the year, fee data can be used as a proxy for actual trail usage.

Exhibit 12 - Buncombe Trailhead Fee Revenue, 2004



Source: USFS

During discussions with users, PwC did not hear that riders felt that the Buncombe or Woods Ferry trails were crowded. Even if the trails were crowded a few weeks of the year, this would not necessarily justify building additional trails to accommodate large crowds for only a few busy weekends. Due to the apparent seasonality of riding on the Enoree RD trails and relatively low usage over much of the year, PwC does not recommend expanding either of the Enoree RD trails.

Summary of USFS Information

Recreation Operational Efficiency Workshop

The workshop results question:

- whether there is sufficient demand to make additional development of equestrian facilities (especially camping areas) cost-effective. Utility hook-ups would likely be demanded of expanded facilities. Suggestion that private sector provide campground and Forest provide trails.
- whether the distance of Woods Ferry Recreation Area from major road may be deterrent to use. Also may need to consider eliminating showers.

Ranger's Choice

The following exhibit presents estimated occupancy, revenues, estimated operating and maintenance cost, and cost recovery for the Enoree RD equestrian facilities. According to the Ranger's Choice report, Buncombe trailhead parking fees were reported as part of the total revenue collected by the Brick House campground.

Exhibit 13 - Enoree RD Ranger's Choice Information

Estimated Average Occupancy 6%

Facility	Fee Demo Revenue	O&M Costs			Calculated Cost Recovery		
		National Standards	Region 8 Standards	District Estimate	National Standards	Region 8 Standards	District Estimate
Brickhouse	\$2,129	\$5,474	\$5,319		39%	40%	#DIV/0!
Woods Ferry	\$3,318	\$11,791	\$11,629		28%	29%	#DIV/0!
Buncombe Trailhead	\$2,414	\$1,178	\$918	\$12,250	205%	263%	20%
Woods Ferry Trailhead	\$0	\$68	\$68	\$4,900	0%	0%	0%
Total for Enoree RD	\$7,861	\$18,510	\$17,933	\$17,150	42%	44%	45.8%

Source: USFS

Long Cane Ranger District

Covering portions of five South Carolina counties with its 119,076 acres, the Long Cane Ranger District ("Long Cane") offers visitors an additional opportunity to experience the Piedmont region of South Carolina.

The following exhibit summarizes the equestrian facilities available on the Long Cane RD of the Sumter National Forest based upon information received from the District.

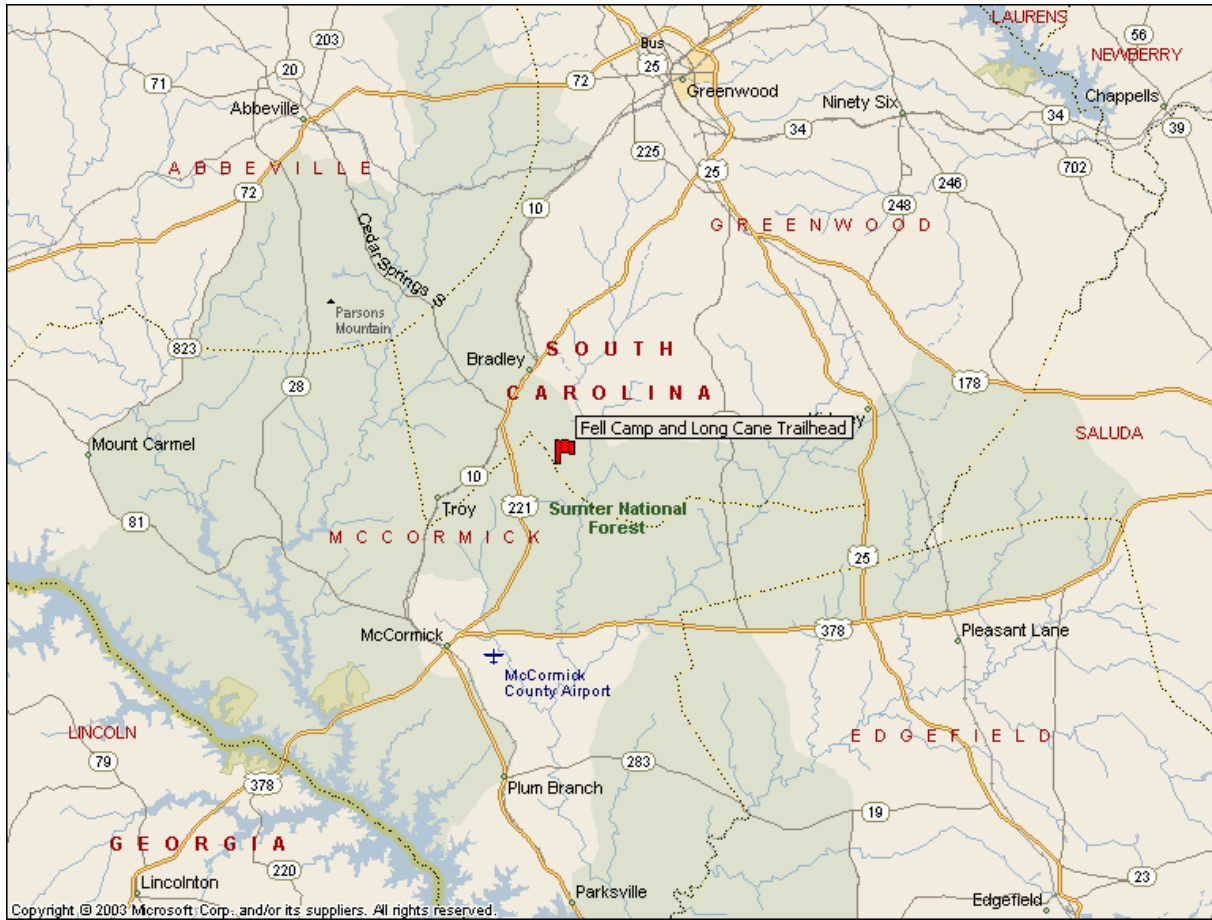
Exhibit 14 - Long Cane RD Equestrian Facilities

Facilities	Miles of Trails	Loops	Day-Use Parking?	Equestrian Camping?	Number of Sites	Fees	Amenities
Long Cane Horse Trail	27.55	Yes	Yes	Yes, at Fell Camp	--	Day Use Parking: \$3/day; \$25 per year	Parking, water, hitching area, vault toilets, picnic pavilion
Fell Camp	--	--	--	Yes	66	\$5/night	Long-term camping allowed; central water; tie/hitching areas, vault toilets grills

Source: USFS

The following map presents the locations of the Long Cane and Fell Camp equestrian facilities on the Long Cane RD of the Sumter NF.

Map 4 - Location of Long Cane RD Equestrian Facilities



Source: USFS, Microsoft MapPoint

Campgrounds

Like the Brick House campground, the Fell Camp campground is used by many types of visitors to the Sumter NF, including hunters, mountain bikers, and equestrian enthusiasts. The camping area is historically a hunting camp, and many hunters take advantage of the monthly and seasonal rates available for those who wish to camp for a long term period of time. There are 66 campsites disbursed over a large, grassy area and a wooded area. There are no corrals or stalls for horses, but users may erect tie lines to secure their horses at night.

Long Cane RD representatives reported that there may be a reconfiguration of the campsites to change the focus of the grassy camping area to day-use parking, thereby reducing the number of sites to 50. Vault toilet restrooms area available, as is a central water source. The RD is in the process of drilling a well to allow for construction of an extended water system that will provide additional water faucets throughout the campground. Finally, a picnic shelter was constructed in 2004.

Limited campground occupancy information was available. In fiscal year 2005, Long Cane rangers reported that a total of 157 camping fee envelopes were collected. However, a note provided with campground information received by PwC stated that it is likely that the number of fee envelopes actually

collected by Long Cane RD for Fell Camp is double what was reported, or approximately 300 fee envelopes. It is important to note that all users of Fell Camp (including hunters) are supposed to submit fee envelopes. Therefore, the number of envelopes collected is not an indication of the number of the camp's equestrian users. By making assumptions about the average length of all campers at Fell Camp (including hunters), we can make a rough estimate of the total occupancy of the camp.

Exhibit 15 - Fell Camp Occupancy Calculation

Campsites Available	66
Available Camping Nights	24,090
Camping Fee Envelopes Collected	300
Estimated Avg Nights of Stay	6
Estimated Occupied Nights	1,800
Occupancy	7%

Source: USFS

The camp's location in the Piedmont region of the state means that equestrian users are probably hesitant to use the camp during the summer months (due to heat), and the autumn months (due to the hunting season). If the average occupancy of the Fell Camp is only seven percent including hunters and other campers, equestrian-related occupancy is likely very low. Due to the short equestrian use season and the low overall occupancy of the campground, it appears that a reduction in the number of campsites is warranted. To achieve an occupancy rate of 25 percent, which would indicate that weekends are busy but not overwhelmed and weekdays are slow, the number of sites could be reduced to 20 based on the assumptions in Exhibit 14. Exhibit 15 - This may be an overly aggressive reduction and does not take into consideration any environmental or land related issues. PwC suggests that the USFS consider reducing the number of campsites to 20-30.

Trails

The Long Cane horse trail offers nearly 25 miles of trail surfaced with dirt, gravel, and pavement. Mountain Bikers are permitted to use the trail as well, however their usage has been historically limited to the northernmost loop of the trail, while equestrian users have used the shorter southern loop (reportedly due to limited parking/access to the northern loop). Long Cane RD representatives estimate that there are a total of 10 miles of additional, user-created trails on the Long Cane RD.

The Long Cane horse trail is primarily serviced by a large trailhead that doubles as the Fell Camp campground. Hitching posts, tie rails, vault toilet restrooms, and water are all available at the trailhead. A \$3.00 parking fee is in effect at all times.

As was the case with campground occupancy information, only limited trail usage information was provided to PwC. In fiscal year 2005, Long Cane rangers reported that a total of 187 parking fee envelopes were collected. In addition, rangers reported that approximately 20 yearly parking passes were sold in fiscal year 2005. It was estimated that these parking passes are used approximately four times per month. The notes provided with parking fee envelope information stated that the number of fee envelopes actually collected should be doubled, for a total of about 375 envelopes.

Even if we assume low fee compliance, and that these fee envelopes represent only 50 percent of total actual users, only about 1,500 horses used the Long Cane trail in 2005 (assuming an average of two horses per vehicle/fee envelope). As is the case with users of the Enoree RD trails, equestrians do not feel safe riding the Long Cane horse trail during the hunting season months of April and September through December, and the warm summer months of May through August are not preferable riding months due to the heat. This means that the Long Cane horse trail is appealing to equestrian users only

three months of the year. For these reasons, it does not appear that expansion of the Long Cane trail could be justified.

Related USFS Information

Recreation Operational Efficiency Workshop

The following questions and concerns were raised during the workshop:

- As with Enoree RD, there is concern that there is not sufficient demand to make additional development of equestrian facilities (especially camping areas) cost-effective. Utility hook-ups would likely be demanded of expanded facilities. Suggestion that private sector provide campground and Forest provide trails.
- The Long Cane RD should consider consolidating camping activity at Parson's Mountain Recreation Area instead of significant new development at Fell Camp.

Ranger's Choice

The following exhibit presents estimated occupancy, revenues, estimated operating and maintenance cost, and cost recovery for the Long Cane RD equestrian facilities. Given the occupancy figure and the fee demo revenue reported, the average rate per camping night would be approximately \$1.50. Therefore, either fee compliance for the Fell Camp is very low, or the estimated occupancy figure appears to be inflated. It is likely that actual occupancy is closer to (or lower than, depending on level of fee compliance) the PwC-calculated rate shown in Exhibit 14 (7 percent). In any case, it does not appear that Fell Campground occupancy is high enough to justify additional development.

Although parking fees are charged at the Long Cane trailhead parking area, no associated revenues were included in the Ranger Choice information provided to PwC.

Exhibit 16 - Long Cane RD Ranger's Choice Information

Estimated Average Occupancy	23%
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Facility	Fee Demo Revenue	O&M Costs			Calculated Cost Recovery (Reg 8)		
		National Standards	Region 8 Standards	District Estimate	National Standards	Region 8 Standards	District Estimate
Fell Camp	\$8,096	\$11,344	\$10,902		71%	74%	N/A
Long Cane Horse Trail	\$2,000			\$4,000	N/A	N/A	50%
Total for Long Cane RD	\$10,096	\$11,344	\$10,902	\$4,000	89%	93%	N/A

Source: USFS

Andrew Pickens Ranger District

The Andrew Pickens Ranger District ("Pickens RD") offers visitors mountainous terrain that borders on north-eastern Georgia and southwestern North Carolina. The Chattooga River, one of the fastest-flowing white water rivers in the eastern U.S., acts as a border between Georgia's Chattahoochee NF and South Carolina's Sumter NF. The Pickens RD covers more than 84,000 acres in extreme north-western South Carolina.

The following exhibit summarizes the equestrian facilities available on the Pickens RD of the Sumter National Forest.

Exhibit 17 - Pickens RD Equestrian Facilities

Facilities	Miles of Trails	Loops	Day-Use Parking?	Equestrian Camping?	Number of Sites	Fee	Amenities
Rocky Gap Horse Trail	12.5	Yes	Yes	Yes, at Whetstone	--	None	--
Whetstone Horse Camp	--	--	--	Yes	20	No reservation: \$12/day; Reservation: \$14/day	Central water, toilets, cooking grills, tie stalls, hitching rails

Source: USFS

The following map presents the locations of the Rocky Gap and Whetstone equestrian facilities on the Pickens RD of the Sumter NF.

Map 5 - Location of Pickens RD Equestrian Facilities



Source: USFS

Campgrounds

The Pickens RD offers one campground for users who wish to camp with their horses. The Whetstone horse camp offers 20 sites in two loops. All sites have special, larger parking pads to accommodate horse trailers. The camp has a tie-stall area that is somewhat remotely located from the campsites, and users are reportedly hesitant to use the stalls because they are not within site of the campsites. Instead, users often erect tie lines to secure horses overnight. The campground has centrally-located water faucets that are located throughout the campground.

Unlike the campgrounds and trails in the Piedmont Ranger Districts, the Pickens reportedly does not suffer from lack of use during hunting season months. In addition, since it is located in the mountains, the Pickens Ranger District offers markedly cooler weather during the summer months. These factors mean that the Pickens benefits from a longer use season than any of the other units of the FMS.

Detailed occupancy information was not available for PwC. However, representatives of the Pickens RD estimated that annual occupancy averages about 15 percent, and said the entire campground is full during approximately 50 percent of the weekends during the busiest season in a given year. Exhibit 17 presents estimated occupancy and other information for the Pickens RD equestrian facilities. Given the reported occupancy and the fee demo revenue reported, the average rate per camping night would be approximately \$13.60. This average rate exceeds the price of a night in the campground (\$12), indicating a lower than stated achieved occupancy estimate. Although its occupancy appears to be higher than the Fell, Brick House, or Woods Ferry camps, it is not high enough to support additional development. PwC recommends maintaining the site as is without improvements or reductions to the campsites. The stalls at the camp may be eliminated in favor of a high line system. According to the limited number of interviews conducted, users prefer to have their horses closer to camp than what is allowed by the location of the stalls.

Another USFS equestrian camp is located on the Chattahoochee-Oconee National Forest ("Chattahoochee NF"), across the state line in Georgia. The Willis Knob horse camp is sometimes linked to the equestrian facilities located on the Pickens RD because the Sumter NF and the Chattahoochee NF have a horse trail that connects them. The Willis Knob camp operation will be discussed in the *Competitive and Comparable Facilities Analysis* section of this report.

Trails

The Rocky Gap horse trail provides riders with scenic views of the southern Blue Ridge Mountains and the Chattooga Wild and Scenic River corridor. Open to equestrian users and hikers, the trail covers approximately 12.5 miles, but has several loops that allow for a longer trail experience. Under certain conditions riders can cross the Chattooga River into the Chattahoochee NF, and continue on the Willis Knob horse trail. The Willis Knob trail offers an additional 15 miles of trail in one continuous loop. Information specific to Willis Knob will be discussed in the *Competitive and Comparable Facilities Analysis* section of this report.

Summary of USFS Information

Recreation Operational Efficiency Workshop

The following questions and concerns were raised during the workshop:

- The RD should consider partnering with the private sector for operation of the Whetstone Horse Camp. If not able to attract public-private partnership, should not upgrade facility.
- The RD should consider charging day-use fee for riding trails.

Ranger's Choice

The following exhibit presents estimated occupancy, revenues, estimated operating and maintenance cost, and cost recovery for the Pickens RD equestrian facilities.

Exhibit 18 - Pickens RD Ranger's Choice Information

Estimated Average Occupancy	15%
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Facility	Fee Demo Revenue	O&M Costs		Calculated Cost Recovery (Reg 8 Standards)
		National Standards	Region 8 Standards	
Whetstone Camp	\$13,000	\$10,844	\$10,270	127%
Rocky Gap Trailhead	N/A	\$909	\$556	--
Total for Andrew Pickens RD	\$13,000	\$11,753	\$10,826	120%

Source: USFS

It should be noted that the Fee Demo number provided above is an estimate and does not represent actual revenues.

National Visitor Use Monitoring Report

The most recent National Visitor Use Monitoring Report ("NVUM") for the Francis Marion and Sumter National Forests was published in August of 2003. The information summarized in the report includes data gathered between October 2001 and September 2002.

- Total annual visitation is estimated to be about 1.13 million.
- Nearly 80 percent of visitors are male.
- Largest visitor age segment was between 21 and 30.
- 92 percent of visitors are white.
- Average stay in the Forest is about eight hours. About 11 percent stay overnight.
- Most common primary activities when using the forest are hunting, fishing, and relaxing. About 1.8 percent said their most common activity is horseback riding.
- Most common activities visitors were doing the day of their survey were relaxing, viewing natural scenery and wildlife, hunting, and hiking. About 1.9 percent of visitors were horseback riding on the day of their survey.
- Most common facilities used by visitors are hiking, biking, or horseback riding trails.
- In the 12 months before the survey, visitors had been to the Forest an average of 5.3 times.
- Day use area visitors were most satisfied with helpfulness of employees and feeling of safety. These visitors were least satisfied with interpretive displays/sign/exhibits.
- Overnight visitors were most satisfied with cleanliness of restrooms, condition of forest trails, and feeling of safety. These visitors were least satisfied with availability of information on recreation and adequacy of signage.
- General forest area visitors were most satisfied with the value they received for the fee paid, the scenery, and the condition of trails. They were least satisfied with the cleanliness of restrooms.

Summary of Current Situation of Francis Marion and Sumter National Forest

Of significant importance to the Francis Marion and Sumter NF is determining the ideal configuration of facilities that meet market demands and that are financially sustainable. Previous sections discussed the market demand aspect of this objective. The following chart summarizes the estimated cost recovery (financial sustainability) achieved for each of the existing equine facilities on the FMS, collected from Ranger's Choice reports. No Ranger's Choice information was available for the Francis Marion facilities, so PwC could not analyze Francis Marion cost recovery.

Exhibit 19 - Sumter NF Cost Recovery Analysis

Ranger District	Location	Fee Demo Revenue	O&M Costs			Calculated Cost Recovery		
			National Standards	Region 8 Standards	District Estimate(1)	National Standards	Region 8 Standards	District Estimates(1)
Francis Marion	Tuxbury Trail		Not Available					
	Jericho Trail		Not Available					
Enoree	Brickhouse	\$2,129	\$5,474	\$5,319		38.9%	40.0%	
	Woods Ferry	\$3,318	\$11,791	\$11,629		28.1%	28.5%	
	Buncombe Trail	\$2,414	\$1,178	\$918	\$12,250	205%	263%	20%
	Woods Ferry Trail	\$0	\$68	\$68	\$4,900	0%	0%	0%
Long Cane	Fell Camp	\$8,096	\$11,344	\$10,902		74%		
	Long Cane Horse Trail (2)	\$2,000	Not Available		\$4,000			50%
Pickens	Whetstone Camp	\$13,000	\$10,844	\$10,270		120%	127%	
	Rocky Gap Trail	N/A	\$909	\$556		0%	0%	
Total for All Sumter NF Facilities		\$30,957	\$41,607	\$39,661	N/A	74%	78%	N/A

(1) Estimates provided in written correspondence by district staff. Estimates were not provided for any of the campgrounds and represent trail costs only. No estimates were provided for the Pickens RD.

(2) An estimate of \$2,000 was made for day use based on information provided by the district stating that revenues for the day use and overnight were approximately \$10,000. \$2,000 is the product of the District estimate minus the fee demo data included in the table.

Source: USFS

The table above represents the best available information. However, it should be noted that actual expense information was not available and may be different from standards and estimates due to efficiencies/inefficiencies developed in the field and the use of volunteers.

According to information provided in Ranger's Choice reports, the Sumter NF equestrian facilities are unable to generate 100 percent cost recovery. In fact, Sumter NF generated a cost recovery of 74 percent to 78 percent based on national and regional standards data only. If the estimates from the Districts are incorporated, the estimated cost recovery drops to 52 percent to 54 percent in 2004. This degree of cost recovery is somewhat enhanced by the relatively high level of cost recovery achieved by

Whetstone Camp, which achieved a cost recovery level of more than 100 percent. For the entire Sumter NF to achieve 100 percent cost recovery, fees would need to increase by a total of more than 40 percent at the Enoree and Long Cane campgrounds. In addition, the fee increase would need to occur without negatively affecting the current level of utilization and compliance.

PwC is not recommending any particular level of cost recovery for the horse operations on the Forests. It is up to the USFS to make an informed management decision regarding the appropriate level of cost recovery that it desires based on budgetary constraints and mission parameters. If the USFS chooses to accept a level of cost recovery that is less than 100 percent, it is essentially agreeing to support a particular activity (equestrian or otherwise) as a part of its core mission and purpose. Alternatively, if the USFS desires to achieve 100 percent cost recovery or more, it is taking the position that a particular activity should be completely supported by the users benefiting from the provision of said activity. There is no proven formula for determining the appropriate level of cost recovery and it will likely vary by activity and by forest or region. However, the concept of cost recovery serves as a tool for USFS managers to make well informed management decisions.

The Francis Marion and Sumter NF both offer equestrian facilities that appear to have varying levels of use. However, with the exception of the Enoree RD, usage at many of the Forests' equestrian facilities is not well tracked. In addition, fee collection information for most equestrian facilities is limited. What information is available implies that trails have relatively low usage and campgrounds have low occupancy. It must be noted that in many cases, the occupancy figures reported by representatives during PwC's site visit do not match the occupancy estimates in the Ranger's Choice report. In several cases, occupancy estimates do not appear to correspond to the reported revenues, even with assumptions of low fee compliance. With the data that is currently available, it is difficult to justify expanded development.

5. COMPETITIVE AND COMPARABLE FACILITIES ANALYSIS

In an effort to develop a thorough assessment of the equestrian facilities market for the areas around the various components of the Francis Marion and Sumter NF, PwC evaluated potential competitive and comparable facilities in South Carolina, North Carolina, and Georgia. We visited comparable private and public sector operations of varying scope. This section will present a summary of the facilities we visited.

Competitive and Comparable Facilities

During its visit to the Francis Marion and Sumter NF in November 2005, PwC visited the following comparable equestrian facilities. In addition, we considered equestrian facilities at Great Smoky Mountains NP in North Carolina and Tennessee.

Exhibit 20 - Competitive/Comparable Equestrian Facilities Interviewed

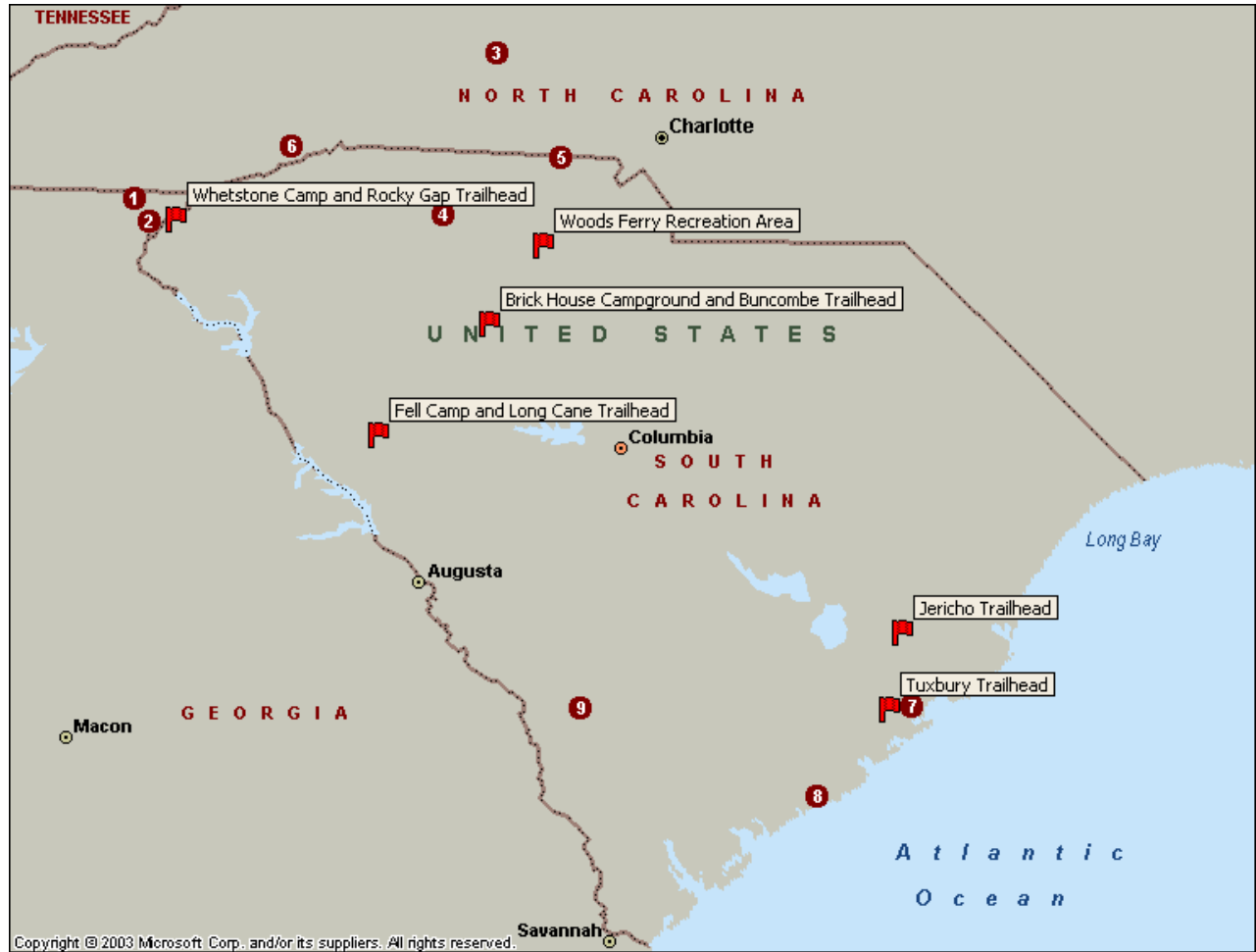
Private	
Facility	Location
Dillard House	Georgia
Ultimate Ride Campground	North Carolina
M&M Farms	South Carolina
Lakeview Plantation	South Carolina

Public	
Facility	Location
Willis Knob Campground	Chattahoochee NF, Georgia
South Mountain State Park	North Carolina
Croft State Park	South Carolina
Kings Mountain State Park	South Carolina
Mullet Hall Plantation	Charleston County, South Carolina
Great Smoky Mountains National Park	North Carolina and Tennessee

The following map illustrates the locations of the competitive and comparable facilities in relation to the USFS equestrian facilities. The numbers in parentheses in the list of operations above correspond to the numbered location on the map. All but the Wranglers Campground and Trail (located in Tennessee and Kentucky) are included on the map.

Exhibits 20 and 21 (following the map) summarize the amenities available at each of the equestrian facilities PwC visited. More detailed descriptions of each facility are also included in this section.

Map 6 - Location of Competitive and Comparable Facilities



Private	
Facility	Facility Chart Number
Dillard House	1
Ultimate Ride Campground	6
M&M Farms	7
Lakeview Plantation	9

Public	
Facility	Facility Chart Number
Willis Knob Campground	2
South Mountain State Park	3
Croft State Park	4
Kings Mountain State Park	5
Mullet Hall Plantation	8
Great Smoky Mountains National Park	Not pictured

Source: USFS, Various Facilities, and Microsoft MapPoint

Exhibit 21 - Competitive/Comparable Equestrian Facilities

Location	Day Use	Overnight	Trails: Public or Private Land	Miles of Trail	Parking Capacity	Campsites?	# of Campsites (Equestrian)
Croft State Natural Area	X	X	Public	21.5	40 to 50 large trailers	Yes	50
Dillard House	X		Both	3 private miles, also Willis Knob trail access	N/A	No	N/A
Kings Mountain State Park	X	X	Public	16	N/A	Yes	15
Lakeview Plantation		X	Private	60	Almost unlimited	Yes	130
M&M Farms	X		Public	14	N/A	No	N/A
Mullet Hall Equestrian Center	X		Public	21	20 to 30 trailers at trailhead, additional near show grounds	No	
South Mountain State Park	X	X	Public	40	N/A	Yes	15 + one backcountry equestrian site
Ultimate Ride Campground		X	Public	80	N/A	Yes	15
Willis Knob	X	X	Public	15	10-12 trailers in day-use area	Yes	9
Great Smoky Mountains National Park Horse Campgrounds	x	x	Public	550	Varies by trailhead--numerous trailheads available	Yes	22 sites in five campgrounds

Source: Various Facilities

Exhibit 22 - Competitive/Comparable Equestrian Facilities (Cont'd)

Location	Campground Amenities	Campground Equine Amenities	Seasonality	Primary Usage	Location
Croft State Natural Area	Water and electric hookups, hot showers, flush toilets	55-stall barn, show ring	Spring and Fall are peak for equestrian use	Individual campers, group camping, horse show participants	Piedmont of SC
Dillard House	N/A	N/A	Year-round	Horse rental	Georgia
Kings Mountain State Park	Central water and toilets	limited stalls and areas for high lines			Piedmont of SC
Lakeview Plantation	Water, electric hookups, hot shower, dining pavilion, flush toilets	60 uncovered stalls, 70 sites with permanent high-lines	Fall, winter, spring	Large group trail rides	Piedmont/Southwestern SC
M&M Farms	N/A	N/A	Fall, winter, spring	Horse rental and boarding	Coastal of SC
Mullet Hall Equestrian Center			Spring and fall, but weekend use is high year-round	Horse shows, large overnight trail rides, day-use rides	Coastal of SC
South Mountain State Park	Central shower facility, water in campground, flush toilets	35 stall barn with 10x10 stals and straight stalls			North Carolina
Ultimate Ride Campground	Water and electric hookups, hot showers, flush toilets	8 Campsites with uncovered stalls/corrals, 11-stall barn, large parking pads for trailers	Summer and fall	Individual campers, small groups	North Carolina
Willis Knob	Water and electric hookups, toilets, camp is gated and requires reservations	Hitching posts	Summer and fall	Group camping	Mountains of SC
Great Smokies Horse Campgrounds	Flush or portable toilets, no other amenities	Hitching posts	April through October	Individual campers, small groups	Western North Carolina, Eastern Tennessee

Source: Various Facilities

Facility Descriptions

Following are brief descriptions of the facilities PwC researched for the purposes of this report. Exhibits 20 and 21 summarize the scope of services at each facility, while the following more detailed descriptions will serve to better characterize the market served by each facility, and, in some cases, the story behind the development of the facility. In cases where financial information was available, we have included this information.

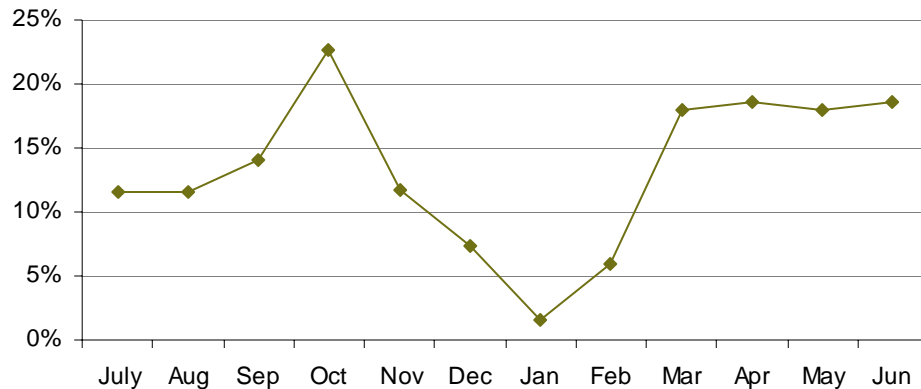
Croft State Natural Area

Croft State Natural Area ("Croft SNA") is a unit of the South Carolina Department of Parks, Recreation & Tourism ("SCPRT"). Located approximately six miles from downtown Spartanburg, SC, the area was once a training camp for the U.S. Army. Croft SNA covers more than 7,000 acres and includes two lakes.

The Croft SNA charges an entrance fee of \$2.00 for adults. Campsites rent for about \$13 per night in the peak season and include electrical and water hookups. Horses are not allowed in the campground, but can be kept at a 55-stall stable facility about one mile from the campsites. Stalls rent for about \$7.50 per night. A show ring is also available; however, most show ring users are day users only. Croft SNA representatives said that their equestrian user population comes primarily from South Carolina, but also from Georgia, Florida, North Carolina, and Tennessee.

SCPRT representatives provided PwC with stall rental revenue information for the state's fiscal year 2005 (July 2004 to June 2005). Assuming 100 percent fee compliance with the \$7.50 nightly stall fee, PwC was able to estimate occupancy for the Croft stable.

Exhibit 23 - Croft SNA Stable Occupancy Trend, FY 2005



Source: SCPRT

State Park and campground representatives were unable to quantify how many campsite nights were equestrian users. However, they were able to report that most equestrian-related camping takes place on the weekends, with peak usage occurring on holiday weekends and during the spring and fall months. To some extent, this appears to correspond to the occupancy trend presented in Exhibit 22. The decline in November and December may be due to a lower preference for camping (and thus use of the Croft stable) in cooler temperatures. It is likely that these months are more popular for equestrian day use. While a deterrent for some users of USFS facilities, hunting is not allowed on State Park lands, which allows equestrian users to feel safe year-round. This significantly expands the potential for equestrian

use at Croft SNA. The state park hunting ban allows riders to benefit from of the cooler autumn months without the perceived threat of hunters.

The stable facility generated approximately \$18,400 in stall-rental revenue in fiscal year 2005. Maintenance expenses for the Croft SNA equestrian facilities and trails totaled about \$6,400 in fiscal year 2005, which is significantly less than the standard costs for the USFS. Though a specific cause of this difference in cost could not be determined, Croft SNA benefits from the regular assistance of several groups of volunteers who participate in trail maintenance activities. The area manager stated that they have little or no budget for maintenance and rely almost exclusively on volunteers. In addition, the campground uses a centralized camping reservation system, and volunteers assist with many administrative duties.

Dillard House

The Dillard House is a small country resort offering 70 hotel rooms, 25 cottages, family-style dining, a small farm operation, and a horse-rental operation. Located in the Blue Ridge Mountains and close to the Chattahoochee NF, the Dillard House rents its horses to guests for three mile trail rides around the Dillard House property. The horse rental operation has been in existence since the early 1900s, when an hour ride cost \$0.50. The following are the fees charged today for a trail ride at Dillard House.

Exhibit 24 - Dillard House Trail Ride Fees

Ride Option	Fee
30 Min Ride	\$20
1 Hour Scenic	\$30
1 Hour River	\$35
1 1/2 Hours Ride	\$55
Chattooga Day Ride*	\$150 - \$200

*Includes lunch

Source: Dillard House

Summer and school vacation periods are the peak usage times for the Dillard House stables. During these peak times, the stable will offer as many as 13 rides per day. The stables are reserved exclusively for the use of rental horses; however Dillard House management reports that it receives a request almost every week for hotel guests of Dillard House to keep their horses in the stable while they stay at the hotel.

Dillard House maintains a permit to guide rides on the Chattahoochee NF and owns another, smaller barn close to a trail head for the Willis Knob trail on the Chattahoochee NF. Dillard House used to use this smaller barn as a launch point for the Chattooga Day Ride, a longer 1/2 day or day-long ride on the Willis Knob trail on the Chattahoochee NF. However, approximately four years ago the road in front of the Dillard House barn was paved, requiring riders to ride for approximately 1/4 miles on pavement before accessing the Willis Knob trail. Pavement can present a slipping hazard to horses, making it dangerous for inexperienced riders. Therefore, the Dillard House can now only offer the longer trail ride options to more experienced riders, and Dillard House representatives report that no guest has ever qualified to take this ride. The smaller barn has gone unused, and the elimination of the longer rides has reportedly resulted in a 25 percent reduction in trail ride business for the Dillard House.

Kings Mountain State Park

Kings Mountain State Park is located near the northern border of South Carolina and borders the King's Mountain National Military Park, operated by the National Park Service. The 6,883 acre park is managed by South Carolina State Parks and provides opportunities for hiking, riding, camping, and boating. The

park maintains the 16 mile King's Mountain Trail for use by equestrians and hikers. They also operate 15 campsites specifically designed for equestrians.

The park offers 115 improved campsites for non-equestrian users. These sites provide water and electricity and some will accommodate RVs up to 40 feet in length. Improved sites rent for \$14-\$16 per night and may be reserved through the National Recreation Reservation System. Even with these improvements, management stated that campground occupancy is relatively low.

The equestrian campsites are basic and do not provide power or toilets. Water is offered at a central location and areas are provided to high-line horses as needed. Reservations must be made directly with the park. According to park management, the equestrian facilities are primarily used by day-use trail riders and the estimated campground occupancy is less than three percent. Usage is highest on the weekends during the fall and spring and is comprised primarily of individuals and small groups. There are very few clubs that use the park's trail system at this time.

Lakeview Plantation

Lakeview Plantation is a large, private equestrian camping and trail riding facility located in southwestern South Carolina. The operators of Lakeview Plantation added equestrian facilities in 2000 to supplement their chartered hunting business. Lakeview Plantation offers week-long hunting expeditions on its grounds, then hosts large trail rides on the weekends.

Lakeview Plantation is located on 3,060 acres and offers 60 miles of trails. The extensive camping area includes 130 sites, all with electrical and water hookups, a dance pavilion with a stage, and shower and restroom facilities. There is also a small lodge with seven rooms; however this is primarily used by the operation's hunting business. Sixty of the 130 sites have a corral/stall directly adjacent to the campsite. The other sites offer permanent high-lines for securing horses at night. Lakeview Plantation charges a total of \$55 per site for large, weekend trail rides. The fee includes campsite, water and electric hookup, and stall for two days, three nights. For small groups or single site rentals, the nightly fee is \$30. On average, Lakeview Plantation hosts between 10 and 15 large (50 or more people) weekend trail rides per year.

Management of Lakeview Plantation reports that its remote location presents the operation with both opportunities and challenges. The lengthy trail system over relatively flat terrain and the well-developed campground facilities attract a variety of users. Historically, large groups have especially liked the large scale of the facilities. However, the long driving distance from large population centers has proven to be a challenge for the operation. Increases in fuel costs have reportedly reduced the number and size of events over the last year. For example, Lakeview Plantation hosts a Thanksgiving weekend trail ride each year. In the past, attendance at this event has averaged 250 people. However, at the time of PwC's visit, Lakeview Plantation management reported only 50 reservations for the Thanksgiving ride. Reportedly, this reduction in demand has taken place for other large-scale trail riding events throughout the southeast.

Lakeview Plantation management spent approximately \$20,000 to develop its campsites, and an additional \$20,000 to build its restroom/shower facilities and convert a barn into a dancehall/dining pavilion. Plumbing and electrical hookups cost approximately \$6,000; however, management benefits from a bartering arrangement with its plumber, and exchanged free hunting expeditions for a reduction in price for plumbing installation. The only operating expense management could quantify was a \$10,000 annual expense for hauling manure and other waste from the property. Many other improvements and maintenance projects at Lakeview Plantation have been completed by workers who have traded their expertise and time for hunting expeditions. It could be assumed that operating and capital expenses for Lakeview Plantation would be higher if management had to hire employees and/or contractors to maintain the facility and complete projects.

M & M Farms

M & M Farms is a horse rental and boarding operation with direct access to the Tuxbury Horse Trail on the Francis Marion NF. The operation currently holds the only permit to guide trail rides on the Francis Marion. M & M Farms reportedly benefits from its location in close proximity to Charleston, SC. The operation does not offer any camping facilities.

According to its management, M & M Farms' operation is heavily dependent on the revenue it receives from private owners who board their horses on the property, and also from the riding lessons it offers. In addition, the operation benefits from volunteers who are willing to care for the horses and complete barn chores in exchange for riding for free. In addition, both the Francis Marion NF and M & M Farms benefit from volunteer organizations that assist with trail maintenance. Therefore, M & M Farms' payroll expense is much lower than would be the case without volunteers.

Hour-long trail rides are offered on one of the operation's 24 horses for \$35. M & M Farms' management reports that it does not have a great deal of local competition, although there are certainly other horse rental operations within driving distance of the Charleston metro area. Most of M & M Farms' customers come from the local Charleston market or are tourists visiting Charleston. The summer months are the busiest for the operation, primarily because those months are the same for peak tourism in Charleston. The winter months of January and February are the slowest months. Recent increases in fuel costs have reportedly had a negative impact on demand for trail rides at M & M Farms.

Mullet Hall Equestrian Center

The Mullet Hall Equestrian Center was developed and is operated by Charleston County Parks and Recreation Department. The Center is a large facility that is primarily designed to host horse shows, but has 21 miles of equestrian trails. The horse show area offers five show rings, flexible stall areas for as many as 196 stalls, horse wash areas, and other amenities. The facility has been open for about five years.

Mullet Hall's horse trails are well groomed, well marked, and almost exclusively over flat terrain. Jump obstacles are being added to some trails to provide a more diverse trail experience. Families and individual users may have unlimited access to the trails in exchange for purchasing a membership pass for Mullet Hall's facilities. A family pass is \$50.00 per year and is valid for up to four members; an individual pass is per year \$25.00. A day pass may also be purchased for \$5.00. A locked gate restricts access to the trailhead area. After users purchase a pass, they are provided with the gate lock access code.

According to Mullet Hall management, the majority of its users are from the local area. PwC was provided with a listing of Mullet Hall pass holders, and the majority of the area codes of phone numbers of those on the list are from eastern part of South Carolina. A small minority of pass holders are from other parts of South Carolina or south-central North Carolina. Mullet Hall management records trail usage by month. In 2004, 1,054 pass holders used the Mullet Hall horse trails. As of the end of September 2005, 1,399 users had ridden the Mullet Hall trails. Facility management credits the increased usage to better marketing and word-of-mouth by users.

Recently, Charleston County Parks and Recreation considered adding camping facilities at or near the trailhead area. However, the County has reportedly not appropriated the capital funding necessary for the development. Electrical service already exists on the site, and Mullet Hall's management that the proposed area for the campsites could accommodate between 20 and 30 sites. In addition, Mullet Hall management believes that the campsites would be very popular all year round. Lack of overnight accommodations is sometimes a deterrent for horse show organizers that would otherwise be interested in holding an event at the Mullet Hall facility. There are no hotels in close proximity. While camping is reportedly not an optimal choice for overnight accommodations for the typical horse show participant, having some campsites would at least offer an overnight accommodations option to show participants. In

addition, Mullet Hall management is of the opinion that campsites would improve the marketability of the facility's trails, especially to those outside of a reasonable driving distance.

South Mountain State Park

South Mountain State Park is located on the southern border of North Carolina and is operated by the North Carolina State Park System. The park is located in a scenic, mountainous area of the state and is known as an especially beautiful place to ride. The park has extensive equestrian facilities including:

- 40 miles of trails
- 35-stall, covered barn with 10'x10' stalls and straight stalls
- 15 campsites located near the barn with water and shower facilities (no electricity)
- One backcountry horse camp area

Campgrounds are rented for \$15 night and stalls are \$10 per night. Usage peaked in 2003, but the park was closed for most of 2004 to pave park roads. The park reopened on January 3, 2005. According to park management, usage is low to moderate and is negatively affected by several factors including the lack of electrical hook ups in the campground, a high degree of technical difficulty on the trails and a lack of sufficient trail loops (requires out and back trip for short rides).

There are no large organized groups that make regular use of the park at this time. It is possible that groups will begin coming to the area more often now that it has reopened with paved roads. It is the opinion of park management that most visitors simply desire a large, flat place to park their rig and set up a temporary corral for their horses. Other than these amenities, most visitors are self contained. Due to the technical nature of the trails, most users are prepared for being self sufficient.

Ultimate Ride Campground

The Ultimate Ride Campground is a privately-operated campground with "bike-friendly and horse-friendly" campsites in the southern North Carolina mountains. The campground does not have any of its own trails. Instead, the campground benefits from its close proximity to the Dupont State Forest. The Pisgah National Forest is also within 15 miles of the campground. There are approximately 80 miles of trails available on the Dupont State Forest, and additional trail miles are available on the Pisgah National Forest.

Ultimate Ride offers a total of 15 equestrian-oriented campsites (10 additional sites are available for bikers or other campers without horses). Eight campsites offer corrals for securing horses at night. In addition to the campsite corrals, campers can also keep their horses in the 11-stall barn (within walking distance to the campsites). Campers have access to a large bathhouse with hot showers and flush toilets. Campsites are large enough for large horse trailers. Management has two horse trailers that campground guests may rent for trips to the Pisgah National Forest or other trail areas.

The campground is open six months of the year, from approximately April through November. The average group size of Ultimate Ride users is two; however, 50 percent of the groups who come to the campground reportedly have two horse trailers or more. About 70 percent of the campground's guests have gaited horses. Campground management reports that during most of the months of operation in 2005, the barn was at full occupancy for two weeks of each month. Ten percent of its 2005 visitors were repeat visitors.

The 2005 level of occupancy represents a near one hundred percent increase from 2004 levels. Ultimate Ride has apparently benefited from a four-minute segment featuring the campground that was aired recently on RFD-TV (a television network "dedicated to serving the needs and interests of rural America and agriculture"). The network devotes two hours each day to horse-related programming. Since the airing of the Ultimate Ride segment, the campground has received inquiries from all over the United States.

The owners of the Ultimate Ride Campground report investing \$1 million in the development of the campsites, bathhouse, and barn. PwC was unable to confirm whether this capital cost matched the developed facilities present at Ultimate Ride. They have planned to add an additional six stalls and make some additional improvements to the parking and access to the site (which is extremely hilly). In addition, management would like to work with area bed and breakfast establishments to offer higher-end guests who would like to take advantage of the local trails and Ultimate Ride's barn, but would prefer an alternative to camping.

Willis Knob

The Willis Knob horse camp is a small equestrian campground in the Tallulah Ranger District on the Chattahoochee NF. The camp is located near the trailhead for the Willis Knob horse trail, a 15-mile trail through mountainous forests and along the Chattooga River.

Willis Knob offers users nine campsites with full water and electric hookups at each site. Four sites are located in each loop, and a ninth site is available outside of the loops. Hitching posts, a spring-fed watering trough, and vault toilets are also available. The utility hookups were added to the camping area in 2003 at a cost of \$95,000 (the ninth campsite was developed in addition to the hookup installation).

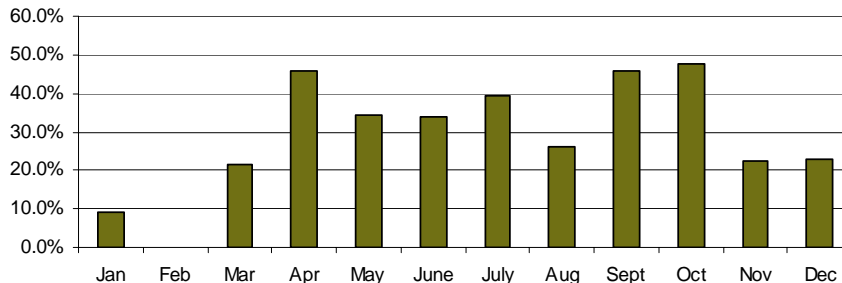
Campsites are \$16 per night. According to ranger district representatives, this fee is enough to cover the expenses associated with providing utilities to the campsites, but is not adequate for recovering other costs related to operating the campground, nor the investment made to install the utilities.

Reservations are required to use the campsites. The road to the camping area is gated and campers with reservations are provided with a code to unlock the gate. Users who wish to camp on Friday and Saturday evenings must reserve the entire "upper loop," "lower loop," or the entire campground. This minimum reservation requirement is in place regardless of whether the reserving camper plans to occupy all four sites in his or her chosen loop.

The reservation requirement has been beneficial in many ways. For example, the Forest is able to use the reservation records to record occupancy and usage of the camping area. The Forest can collect the zip codes of users and track where users are coming from. Also, the minimum site reservation requirement for weekend nights virtually guarantees a certain level of occupancy, regardless if the reserving camper uses all of the sites or not. Finally, fee compliance is relatively high since the Forest knows who the campers are before they arrive and have contact information for every user.

Using the reservation records, PwC calculated a total occupancy of about 29 percent for calendar year 2005. The chart in the following exhibit illustrates the occupancy trend for 2005. February reservation records were unavailable. January 2005 had the lowest occupancy, with about nine percent. September and October had the highest occupancy, with about 47 and 48 percent occupancy, respectively.

Exhibit 25 - Willis Knob Campground Occupancy



Source: Chattahoochee NF

The following map illustrates the zip codes from which campers originate. The red flag indicates the location of the Willis Knob campground, and the pin symbols indicate zip codes of 2005 campground users. The center blue outline indicates a one-hour driving distance, while the outer blue outline indicates a three-hour driving distance. The number of pins does not indicate the number of users--many times more than one user came from a particular zip code. Finally, two central Florida zip codes are not pictured.

Map 7 - Origin of Willis Knob Campground Users



Source: Chattahoochee NF

Great Smoky Mountains National Park

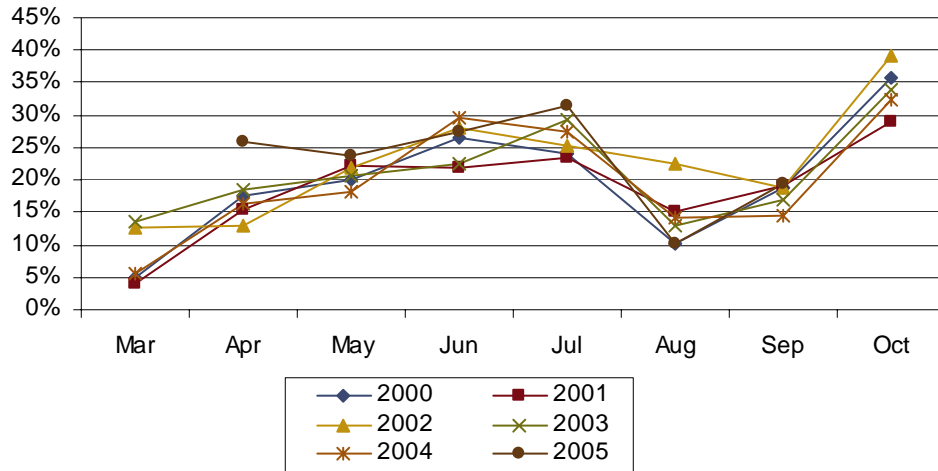
Located in the mountainous region between western North Carolina and eastern Tennessee, Great Smoky Mountains National Park ("Great Smoky Mountains NP") offers extensive equestrian opportunities. Four concession operations offer horse rental trail rides of varying lengths through the Park. For visitors with their own horses, approximately 550 miles of the Park's trails system are open to horse use. In addition, there are five horse camps in various locations around the Park, and back country horse camping is allowed. A total of 22 campsites are available around the Park.

The park does not currently have accurate statistics on its horse trail usage. However, according to Park representatives, private horse owner trail usage appears to have increased somewhat in recent years.

Conversely, usage of the four horse rental concession operations has declined dramatically over the last five years. Between 2001 and 2005, the total number of equestrian concession riders declined by nearly 40 percent.

The camps are open from April to October and average about 21 percent occupancy during that time. The following chart shows the seasonality and occupancy of the horse campgrounds at Great Smoky Mountains NP. The monthly campground occupancy trend was very consistent over the period analyzed. July and October appear to be the busiest months for horse camping in Great Smoky Mountains NP.

Exhibit 26 - Great Smoky Mountains NP Campground Occupancy



Source: Great Smoky Mountains National Park

The camps have very limited service--only one of the five camps offers flush toilets and drinking water. The other campsites offer only portable toilets and no drinking water. The Park's website lists campsite fees at \$25 per night for sites at the camp with flush toilets; and \$20 for sites at other campgrounds. However, the 2005 average rate per night for all of the campgrounds was about \$12.80. The disparity may be due to problems with fee compliance.

About 57 percent of all 2005 camper nights occurred at Cataloochee Camp. According to park representatives, this high level of usage is due to the numerous easily accessible equestrian trails near the camp. This indicates that campsites with easily accessible trails are probably preferable to equestrian users.

Competitive/Comparable Summary

The competitive and comparable facilities had generally low utilization across the board. For public facilities, Willis Knob had the highest occupancy at 29 percent, which appears to have been consistent over the last several years. Great Smoky was at 21 percent. Both of these figures significantly exceed the occupancy estimates for the FMS. Of the private facilities surveyed, all of them provided horse operations on a largely seasonal basis and, other than the Ultimate Ride, indicated that occupancy and use were declining.

Based on the data described in this report, it appears that the market for equestrian activities is flat to declining. In essence, the size of the market opportunity is, at best, staying the same and at worst, shrinking. Additionally, this demand is spread thinly across multiple locations, none of which appears to be thriving or achieving high occupancy rates (50 percent or more). Though it could be argued that

additional use would occur at a given location if it were improved, it does not appear to be true based on the higher occupancies at Great Smoky, which has a low level of improvement in its developed facilities. Additionally, if usage increases in one location, it is likely to decrease in a different location, thereby having a neutral to negative effect on overall cost recovery among all locations.

It could be argued that the private sector facilities should be able to accommodate day use activity as well and enable the USFS to exit the equestrian market altogether. However, the private sector is unable to operate profitably with only a day use operation. As demonstrated through the interviews conducted with private operators, they are most likely to be successful when they can minimize their land investment by using public trails and when they provide additional services such as lodging, food service, or stables. All of these additional services are affiliated with overnight, not day use operations. Additionally, the USFS plays an important role in providing access to public lands, especially in the mountains and coastal areas where other public agencies do not have as much of a presence. Therefore, if the USFS deems it important to its mission to provide for equestrian use, they are best suited at providing day-use opportunities.

6. FINDINGS AND RECOMMENDATIONS

In this section of our report, PwC will discuss the information presented thus far in the context of our findings and recommendations for FMS next steps. This section is organized in the following manner:

- User Preferences
- Cost Recovery Potential
- Market Support for FMS Equestrian Facilities

User Preferences

PwC held discussions with users of the equestrian facilities on the FMS. Through these discussions, PwC was able to identify preferences of the trail riding community. Preferences discussed include:

- trail features:
 - loops and distance
 - settings
 - natural attractions
- day-use facility amenities, and
- campground size and desired attributes

The following sub-sections summarize PwC's user preference findings. It must be noted that PwC was unable to formally survey a larger user population. The findings listed in this section are based upon information gathered during discussions with users during our November 2005 site visit. However, we heard similar things from many different users during our various discussions. This indicates that it may be reasonable to assume these preferences are representative of the larger market.

Access

- **Trails access:** Campgrounds with adjacent or very proximate access to a trailhead are highly preferable.
- **Road access:** If trails are attractive to users, they are likely willing to drive a long distance from main highways. Since many users are driving large trucks and trailers, they prefer access roads that are wide enough for two trailers to pass each other safely.
- **Distance - Day Use:** When setting out to ride their horses for the day, users prefer to drive for the shortest distance possible between home and the trailhead. Riders do not typically prefer to drive for longer than they will ride. A reasonable day ride will likely last about four to five hours. Therefore, the maximum driving distance for a day-use ride is approximately three hours each way, but a shorter drive time is preferable.
- **Distance - Overnight:** If users plan to camp, they are willing to drive a longer distance. A good campground with desirable amenities and an interesting, lengthy trail system can probably expect users to come from a driving distance of as many as eight hours.

In addition to learning about the above access issues, the FMS was also interested in knowing the implications of strictly enforcing a designated trail policy. Users told PwC that they use the non-designated trails to improve their riding experience on the FMS because they desire diversity, not because they want additional trail miles. This is a difficult issue for the USFS because users want more options but are not going to ride more often (generating more fees) by having them. Rather, it appears

that they will more likely move from place to place during their rides, thereby spreading the fees around over a larger area that is more expensive to maintain resulting in reduced cost recovery.

Unless the FMS is able to strictly enforce a designated trails policy, limiting riders to designated trails would likely not have a measurable impact on demand. Frequent users of trails on the FMS are unlikely to change their habits if they are accustomed to using user-created trails. In addition, changing these habits could be expensive for the FMS. The FMS will need to be prepared to provide funding for the destruction of user-created trails, and will need to fund Forest Protection Officer or Law Enforcement Ranger positions to patrol the equestrian trail areas and prevent continued use of user-created trails.

If the FMS *is* able to enforce a designated trails policy, it is likely that use of FMS trails may decline somewhat. The Forests should consider some of the alternative places to ride that are proximate to each of the four areas of the FMS. Some demand could be displaced to these competitors. However, it is likely that users will still use the FMS to maintain variety of places to ride, but may use the FMS less frequently.

User-created trails have been established by riders to provide themselves with more variety in the form of additional loops and longer trail lengths. The FMS should take this into consideration--and potentially think about formalizing some user-created trails if it plans to strictly enforce a designated trails policy. Offering more trails could help to sustain usage that would otherwise decline when users are forced to remain on designated trails. This preference for more trails is unlikely to equate to more riders or more riding. Rather, it will spread existing use over a broader base of trail miles. Additionally, the USFS should consider the economic tradeoffs of formalization and enforcement versus continuing under the status quo.

Day-Use/Trail

PwC heard the following user preferences related to day-use and trails.

- **Trailhead:** The most important amenity for day-use campers is parking space. Groups of riders often congregate for day-long trail rides, so trailhead parking space that can accommodate several large trailers is necessary. The variations in group size and trailer length are great, so unfortunately it is not possible to definitively recommend a capacity for trailhead parking. Almost any trailhead would likely fill to capacity on busy weekends during the peak season of each of the FMS equestrian trails. As with campsites, the ability to "pull-through" parking spaces is important. Some users would prefer to have a water source at the trailhead, but this is not an absolute necessity.
- **Trail features:** Preferences differs somewhat depending on the purpose of the ride. Some users ride to "enjoy nature" and relax. For these users, diverse topography and appealing scenery are important. Riders who are training their horses for endurance competition are not as concerned with aesthetics of the trail, but will still be interested in diverse topography to provide challenge to their horses. Dirt or sand trail tread is preferable to gravel, rocks, or pavement. Gravel and rocks can be harmful to horse's hooves, and paved surfaces can be extremely dangerous for horses without special shoes.
- **Safety:** A safe trail experience is extremely important to users. A well-maintained trail tread with a well-marked trail is necessary for any rider. Depending on the group size and type of use, a wider or narrower trail tread may be preferred. Users riding in groups or with small children will likely prefer a wider trail tread to accommodate two riders side-by-side.
- **Distance:** Like many other aspects of trails, the preference for distance depends on the user and the purpose of the ride. Casual riders out for a day ride prefer trail lengths of no more than 10 to 12 miles, with longer mileage preferred by users with gaited horses. Endurance riders will likely prefer longer mileage as well, since they are preparing their horses for long-distance, high speed

competitive rides. However, PwC was unable to speak with any large number of endurance riders, so it is not possible to provide definitive trail length preferences for this group.

- **Loops:** The more loops a trail offers, the more diverse the experience offered. Numerous loops can allow an interesting, varied and lengthy experience on small land areas. Users can opt to take shorter or longer rides depending on how many loops they use. No matter how many loops in a trail, directional signage is extremely important. Users need to know where they are headed at all times, as well as how to return to their starting point if need be.

Campgrounds

PwC heard the following user preferences related to campgrounds and overnight use.

- **Associated Trails:** Users camping near equestrian trails prefer to be able to have a variety of experiences over the course of their stay. Therefore, for overnight users, a longer, more diverse trail experience is important. This can be accomplished with a combination of distance and trail loops.
- **Utilities:** Utility hookups, while important, are not an absolute necessity. Generally, overnight users have a high preference for a water source, but if they are only staying for a short time, many users can transport their own water. Currently, none of the campgrounds on the Sumter offer hookups, but all (with the exception of Brickhouse) offer a central water source.
- **Securing Horses:** Adequate space for securing horses at night close to campsites is highly desirable. Permanent corrals or stalls are not necessary, but hitching posts or other structures for "high-lining" horses are necessary to deter campers from using trees for this purpose.
- **Campground Layout:** The campgrounds should be organized in a manner that is conducive to group camping and socialization. The camping area should be well-lit to promote a feeling of safety and security. Another item for consideration by the FMS is that larger campgrounds allow more flexibility for hosting larger groups or several groups simultaneously. Trail riding and camping appear to be highly social recreational activities. Larger groups of people like to meet for a long weekend of trail riding and camping.
- **Overnight Segmentation:** In general, the overnight user group appears to be segmented in the following manner. For the purposes of this report, a "developed" campground implies water and utility hookups are available.
 - *Short, 1- or 2-night stay:* shorter trail distance (12 or more miles), undeveloped facilities are adequate since many users are "self-contained," meaning that they have generators and are able to carry water with them.
 - *Medium, 3- or 4-night stay:* significantly longer trail distance (20 miles or more), developed facilities may become more important as transporting adequate water and fuel for a generator becomes inconvenient.
 - *Long, 5 nights or longer:* longer trail distance, high preference for developed facilities to promote comfort and convenience for a longer stay.

Market Support for FMS Equestrian Facilities

FMS Equestrian Use Role

PwC's conversations with various public and private competitive users yielded information about users, the nature of their operations, and some construction cost and operating revenue and expense information. The most significant conclusion drawn from our analysis and comparison of FMS and

competitive facilities is that the primary facility focus for the FMS is to provide day-use facilities to support trails.

While PwC did not extensively research the attributes of all possible competitive and comparable facilities in South Carolina and surrounding states, the in-depth facility studies we did complete seemed to indicate that the overnight/ camping market is well-addressed by the private and other public sector facilities outside the Forests.

Through our discussions with and research of private operators, PwC found that FMS and other public lands provide trails for use by visitors staying in campgrounds near the forest or other public land. In addition, for private operators, the investment (purchase price) and carrying cost (taxes) for land large enough to accommodate a diverse, interesting trail system with loops of varying lengths are often too high or do not allow for an adequate profit. In addition, large pieces of land are not often available for purchase. In all but one case (the Ultimate Ride), private operations had significant other revenue sources such as lodging, guiding, and hunting to augment equestrian based income. None of the operators interviewed believed they could survive on equestrian use alone. In the case of the Ultimate Ride, the entire operation is managed and staffed by the owner on a seasonal basis.

FMS possesses large amounts of land for trails. At the same time, the trails tend to be somewhat shorter. The FMS' trail systems are not as long as overnight users tend to prefer and are not the length needed to provide a varied trail experience supportive of long-term camping (i.e. more than a weekend). However, other facilities in the region provide these trail systems. In addition, since utility hookups are not available, the amenities offered at most FMS camping areas are not adequate to support long-term camping. As stated throughout this report, other agencies and private businesses are meeting the need for overnight facilities and trails. It could be argued that if the USFS provided these facilities, they could penetrate the market and capture some of the demand. Though this may be true, it would be at the detriment of these other facilities and any increase seen by the USFS would be small given the total size of the market and the low utilization of most facilities. However, if the USFS desires to compete against other public entities and the private sector, it may wish to reevaluate the recommendation made herein that the agency's best use of its facilities is to focus on day-use experiences.

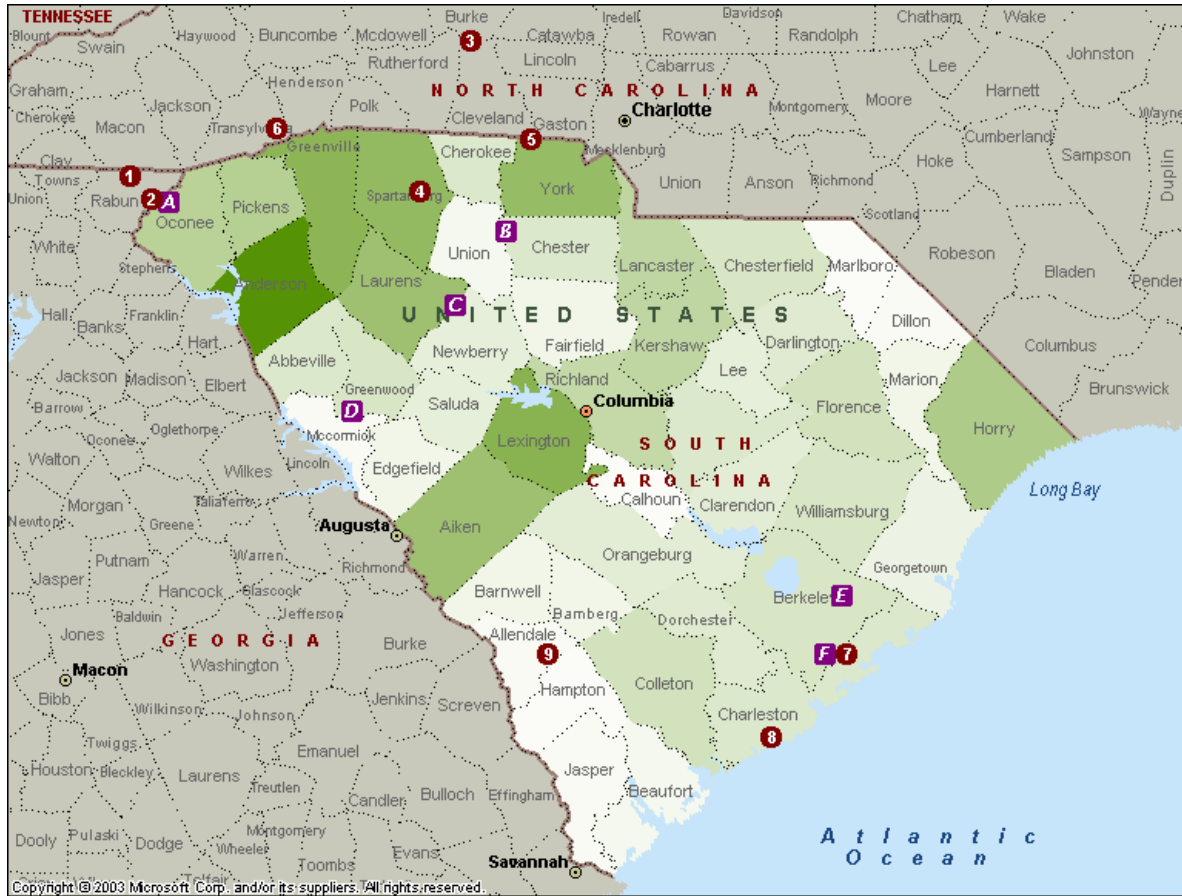
The limited size of the market and the variety of other mission driven public agencies that serve the market indicate that consolidation and cooperation among agencies is key.

Given these factors, PwC found that the primary purpose of the FMS in terms of equestrian activity appears to be provision of trails. Whether the trails are used by local riders for day-use or by visitors taking advantage of more developed overnight facilities outside the Forest, it appears that trails should remain the focus of the Forest.

Relationship of Demand to Current Facilities

The following map shows the concentration of the horse population by county in South Carolina. The populations shown include only the breeds primarily used for trail riding. As highlighted earlier in this report, these breeds are Quarter Horses, Paints, Tennessee Walking Horses, American Saddlebred Horses, and Arabians. Of particular note is the large concentration of the South Carolina horse population in the northwestern portion of the state.

Map 8 - Horse Population and USFS and Competitive Facilities



Competitive Facilities		
Facility	Location	Facility Chart Number
Dillard House	Georgia	1
Willis Knob Campground	Georgia	2
South Mountain State Park	North Carolina	3
Croft State Park	South Carolina	4
Kings Mountain State Park	South Carolina	5
Ultimate Ride Campground	North Carolina	6
M&M Farms	South Carolina	7
Mullet Hall Plantation	South Carolina	8
Lakeview Plantation	South Carolina	9

FMS Facilities		
Facility	Location	Facility Chart Letter
Whetstone Camp and Rocky Point Trailhead	Sumter NF, Pickens RD	A
Woods Ferry Recreation Area	Sumter NF, Enoree RD	B
Brick House Camp and Buncombe Trailhead	Sumter NF, Enoree RD	C
Fell Camp and Long Cane Trailhead	Sumter NF, Long Cane RD	D
Jericho Trailhead	Francis Marion NF	E
Tuxbury Trailhead	Francis Marion NF	F

Source: South Carolina Department of Agriculture, USFS, Various Facilities, Microsoft MapPoint

As previously noted (and pictured in Map 8), the FMS has equestrian facilities in each of the three major regions of South Carolina: coastal (Francis Marion), Piedmont (Long Cane and Enoree Ranger Districts of the Sumter), and mountains (Pickens Ranger District of the Sumter). The fall season is the most popular for the Francis Marion, the Enoree, and the Long Cane facilities. However, the fall season is concurrent with the South Carolina hunting season, which appears to be a deterrent to equestrian use of the forest in the Piedmont and Coastal regions. The mountain region is especially popular during the summer months, since the area offers cooler temperatures during that time of year. In addition, the heavily forested mountains region is also popular during the autumn months, when the fall foliage is at its peak. Hunting during the fall months does not appear to be a deterrent to riders in the mountain region.

In terms of trail riding facilities, northwestern South Carolina is currently served by the Rocky Gap trail on the Pickens RD and the Willis Knob trail in the Chattahoochee-Oconee National Forest, across the Georgia border. Depending on the depth of the Chattooga River, users can cross it and can connect the Rocky Gap and Willis Knob trails for a total trail distance of 27.5 miles. The Willis Knob camp offers a developed campground with utility hookups. There are also additional equestrian trails on the Chattahoochee-Oconee. Finally, there are other trails on USFS, and National and state park lands within a three-hour drive of the Pickens Ranger District. Therefore, it appears that the area may be well served for both day-use and overnight equestrian activity.

Cost Recovery Potential

Market Information

Cost recovery information for equestrian activities was difficult to collect. Public sector facilities were able to provide PwC with information related to revenue collected from camping and entrance fees. However, these facilities were unable to provide detailed expense information for their operations.

The private sector facilities PwC studied seem to rely heavily on other sources of income and volunteers or bartering for their operating and some capital expenses. For example, Lakeview Plantation operates hunting excursions on its property, and cites these excursions as its primary source of income. The large trail rides hosted by Lakeview Plantation are only an ancillary source of revenue. In addition, Lakeview Plantation benefits from local providers' willingness to barter hunting excursions for maintenance and construction services, such as installing plumbing systems. This bartering system allows Lakeview to save on construction costs and operating expenses. Other operations, such as M & M Farms and the trail-riding concession operations at Great Smoky Mountains NP, depend on family and equine-enthusiasts to provide volunteer labor, allowing these operations to have lower payroll costs.

Cost Recovery Implications for FMS

Users interviewed overwhelmingly reported paying much higher rates for overnight accommodations at almost any location they visited outside the Forest. These users also indicated a willingness to pay higher rates than they currently pay to use the campgrounds on the FMS. For day-use, users appear to be amenable to paying a small fee, but the availability of services at the trailhead appears to impact the fee level that is tolerable to users.

PwC cautions that while there may be demand for additional or expanded equestrian trails and day-use facilities on the FMS, there may be limited opportunity for cost recovery for this activity. Unfortunately, the limited amount of cost recovery information PwC was able to collect does not allow for conclusive recommendations about the degree to which the Forests can expect cost recovery for any expanded facilities on the FMS. Finally, without more definitive cost-recovery information, PwC cannot recommend that the FMS explore public-private partnership opportunities with for-profit businesses (i.e. concessions). However, the FMS may want to consider more formal agreements with non-profit or volunteer groups for maintenance/operation of a trail or camping area. If a group of this type is able to focus its efforts on one trail or camping area, fee compliance may increase, and costs of operation and maintenance may be

tracked more accurately. An arrangement such as this with a non-profit organization may also allow the FMS to "test" various ways to track usage.

Regardless of the decision of whether to expand trails or implement a fee at Rocky Gap, the FMS should consider the possibility of pooling fee revenues with the neighboring Chattahoochee-Oconee RD. The Willis Knob campground has a relatively high occupancy and therefore generates healthy fee revenues. It is likely that many Willis Knob campers cross the Chattooga River and use the Rocky Gap trail. Likewise, Whetstone campers use the Willis Knob trail. Even if the decision is made to keep the Rocky Gap horse trail at its status quo length, the Forests should consider the concept of pooling fee revenues.

Summary Recommendations

The South Carolina equestrian overnight use market appears to be well-served by both private and public operators other than the FMS. When combined with the existing facilities and use patterns on the FMS, the Francis Marion and Sumter National Forests appear best suited to be day-use equestrian providers.

The concentration of the horse population, the diverse topography and scenery, cooler weather, and apparent willingness to share space with hunters appear to make the northwestern mountains of South Carolina an ideal location for the provision of equestrian facilities that would receive the most usage. This area is currently served by the Rocky Gap trail on the Pickens Ranger District and the Willis Knob trail in the Chattahoochee-Oconee National Forest, across the Georgia border. There are also additional equestrian trails on the Chattahoochee-Oconee. Therefore, it appears that the area within a three-hour driving radius of the Pickens Ranger District is already well served for day-use equestrian activity.

It should also be noted that PwC was unable to collect any amount of information about the usage or operating revenues and costs of the trail facilities on the Francis Marion. Without information about current or historical usage of these trails, it is not possible to make a definitive recommendation about the continued operation, consolidation, or closure of these facilities. If the FMS begins to track usage of the trails on the Francis Marion, it will help to facilitate future decisions about whether to continue to operate these trails.

Given these factors, the FMS should likely focus on realigning and consolidating its current inventory of equestrian facilities and trails. If the FMS does choose to expand its day-use facilities, it may consider expanding its equestrian trail system on the Pickens Ranger District. Specifically, the FMS should prioritize its equestrian use funding in the following order:

1. **Enoree Ranger District Facility Consolidation:** Realign its current facilities and either close or change the management of either the Brickhouse campground or the Woods Ferry Campground. There are positive and negative aspects to each campground and their associated trail systems. It appears that closing one or the other of these campgrounds and trying to consolidate use into the other campground is justified from the perspective of the equestrian market but based on available data, PwC is unable to recommend which of the two should be closed. Effects on other users such as hunters, general campers, mountain bikers, or hikers were not evaluated for this report.

As an alternative to closure, the management model used at one of the two locations could be changed from an open use system to a reservation only system with a minimum occupancy requirement for equestrian use. This type of system has worked well for the Chattahoochee-Oconee National Forest at the Willis Knob campground.

2. **Long Cane Ranger District Facility Reduction:** Reduce the number of campsites at Fell Camp from 66 to between 20 and 30.
3. **Program Management:** Improve program management by making wider use of tools similar to those used on the Enoree Ranger District. The Forests should consider recording trail usage at all its units. In addition, all units of the Forests should more diligently track usage of trailheads

and campgrounds. Better data could help the Forests with future efforts to make well informed management decisions about its facilities and offerings to the public. Specific data points that should be recorded are:

- By month, number of occupied site nights in each campground. If possible segment by type of user such as equestrian, hunter, general camper, etc. Additional segmentation by weekend, weekday, and holiday would be helpful.
- Number of people per campsite
- Number of horses per campsite
- Length of stay for each group occupying a campsite
- Number of horses/riders on the trail each month. Could be done with a counter at the trailhead or on the trail. Even the use of a voluntary system whereby visitors drop a note in an iron ranger with the number in their party would be helpful.

The least costly way of collecting the above information is by relying on users to fill out fee envelopes or other forms with the appropriate questions on them. However, this type of information collection is open to inaccuracies through under/over-reporting. The USFS could work with its own statistical experts to conduct random samples in a statistically valid way to estimate use. This information could then be confined with available use data from fee collections and user submitted forms to arrive at a reasonable estimate for utilization.

4. **Charge Fees at Woods Ferry and Rocky Gap Trailheads:** These areas do not assess fees for day use activities. If the parking areas and amenities meet the requirements of the Recreation Enhancement Act, the USFS should charge the same fees at these areas as it does at others.
5. **Trail Maintenance:** The Forests should continue to maintain and repair its current inventory of equestrian trails.
6. **Day-Use Facility Maintenance:** Once realignment is completed, the USFS should continue to maintain the facilities that are still in use.

PwC cautions that while there may be demand for additional or expanded equestrian trails and day-use facilities on the FMS, there may be limited opportunity to recover the costs of this activity.

7. **Expansion of Day-Use Facilities:** Once realignment is completed, the USFS could expand the day use parking areas on the Enoree and Andrew Pickens Ranger Districts.
8. **Expansion of Trails:** If funds are still available after addressing all of the previous recommendations, the FMS should work to formalize some of the existing user trails near the Rocky Gap horse trail on the Pickens Ranger District. PwC cautions that the FMS should take this step only if it plans to follow a strict designated trails policy and plans to enforce that policy. Without active management, the problem of user created trails will likely continue.

In addition to recommendations for funding the facility and program investments described above, PwC recommends that FMS works more closely with South Carolina State Parks, Georgia State Parks, North Carolina State Parks, the Chattahoochee-Oconee National Forest, other National Forest and National Park Service units in North Carolina, Georgia, and Tennessee, and the South Carolina Horsemen's Council to form a "working group" dedicated to equestrian use of public lands in South Carolina.

The group would foster a forum for discussing various members' roles in providing opportunities for trail riding. All members would essentially be working together to meet the needs of the equestrian community. Improved communication could allow group members to learn each other's respective niches for equestrian use (thereby driving business to whomever is best suited to accommodate it), and share best practices. Finally, the group could conduct a larger scale study of the southeastern U.S. trail riding industry, including trail rider demographics, revenues, cost metrics, and user attitudes and preferences.

7. ASSUMPTIONS AND LIMITING CONDITIONS

The accompanying analyses are performed in accordance with the Standards for Consulting Services established by the American Institute of Certified Public Accountants ("AICPA"). Accordingly, this document does not constitute an opinion, attestation or other form of assurance with respect to our work or the information upon which our work is based. The procedures that we have performed under this Agreement do constitute an examination or a review in accordance with AICPA consulting services. We did not audit or otherwise verify the information supplied to us in connection with the engagement under this agreement, from whatever source, except as was specified in the agreement.

Our services did not include the provision of legal advice and PricewaterhouseCoopers makes no representations regarding questions of legal interpretation. We have assumed that the USFS has consulted with its attorneys with respect to legal matters or items that require legal interpretation, under federal, state or other type of law or regulation. Changes in the law or in the regulations and/or interpretation may take place after the effective date of this engagement, or may be retrospective in impact; we accept no responsibility for changes in the law or regulations or their interpretation which may occur after the effective date of this engagement.

To the best of the PwC engagement partner's knowledge and belief, the statements of fact contained in this report, upon which the analysis and conclusion(s) expressed are based, are true and correct. In the preparation of this analysis and the report, PwC has relied on information, estimates, and opinions furnished to PwC by third party sources ("Source Information"). PwC makes no warranty or representation as to the accuracy of the Source Information or any information set forth in our report that is based, in whole or in part, on the Source Information.

PwC's analyses are based on estimates and assumptions developed in connection with this engagement. Some assumptions, however, inevitably will not materialize, and unanticipated events and circumstances will occur; therefore, actual results achieved during the period covered by the accompanying financial analyses will vary from the estimates contained therein and the variations may be material.

For purposes of our analysis and report, PwC has not reviewed the quality or nature of the USFS management and have assumed the USFS management to be competent. The quality of management can have a direct effect on a business' economic viability. Any variance from this assumption could have a significant impact on the estimates of financial performance.

PwC takes no responsibility for any events, conditions or circumstances that may affect the subject facilities that take place subsequent to the last day of our fieldwork, November 4, 2005. The estimates and underlying analyses presented herein are time sensitive, as changing market conditions over time inevitably will require that this analysis be updated.

Subject to the restrictions contained in the Contract, the USFS owns all written material originally prepared expressly for the USFS and delivered to the USFS under this Agreement, and PricewaterhouseCoopers shall own any general skills, know-how, expertise, ideas, concepts, methods, techniques, processes, software, materials or other information which may have been discovered, created, developed or derived by PricewaterhouseCoopers either prior to or as a result of its provision of Services under this Agreement (other than the Deliverables). PricewaterhouseCoopers' working papers belong exclusively to PricewaterhouseCoopers.

The deliverables ("the Deliverables") are solely for the USFS internal use and benefit. The USFS shall not authorize any third party ("Third Party") to rely upon any of the Deliverables without PricewaterhouseCoopers' prior written consent. The USFS shall not distribute to, discuss with, or otherwise disclose the Deliverables to any Third Party without PricewaterhouseCoopers' prior written consent, and the USFS shall not otherwise discuss the fact or substance of the Services hereunder with Third Parties without PricewaterhouseCoopers' prior written consent. PricewaterhouseCoopers accepts

no liability or responsibility to any Third Party who benefits from or uses the Services or gains access to the Deliverables. PricewaterhouseCoopers and the USFS may have discussions regarding the Services and/or Deliverables; provided, however, that oral or preliminary information, drafts or advice given by PricewaterhouseCoopers may not be relied upon or attributed to PricewaterhouseCoopers unless PricewaterhouseCoopers specifically confirms such information or advice or otherwise reduces such draft to a final writing.

Because PricewaterhouseCoopers accepts no liability to third parties with respect to the Services and Deliverables, the USFS has agreed (without limiting any other indemnification provision set forth in this Agreement) to indemnify and hold PricewaterhouseCoopers harmless from and against any and all Third Party claims, suits and actions, and all associated damages, settlements, losses, liabilities, costs, and expenses, including without limitation reasonable attorneys fees, arising from or relating to the Services and/or Deliverables under this Agreement, except to the extent finally determined to have resulted from the gross negligence or intentional misconduct of PricewaterhouseCoopers relating to such Services and/or Deliverables.

APPENDIX

Breed Participation in Trail Riding

Of all of the various breeds of horses, some of the most popular for trail riding include Quarter Horses, Paint Horses, Tennessee Walking Horses, American Saddlebreds, and Arabians. The organizations responsible for registry and promotion of these breeds have begun various organized programs dedicated to the promotion of recreational and trail riding, and have growing membership for these programs. However, none of the organizations provided PwC with detailed information for their program memberships.

Brief descriptions of these breeds are provided below.

Quarter Horses

In addition to analyzing equestrian activities and their impacts on the U.S. economy, the AHCF also studied the impacts of particular horse breeds. According to the AHCF study, the Quarter Horse is the single most popular breed in the U.S.

Exhibit 27 - Total Horses by Breed and Activity Category

Breed	Recreation	Racing	Showing	Other	Total
Thoroughbreds	228,290	559,322	336,992	167,203	1,291,807
Quarter Horses	1,353,236	127,720	1,078,639	728,707	3,288,302
Other Breeds	2,325,398	157,489	1,303,324	856,528	4,642,739
Total	3,906,924	844,531	2,718,955	1,752,438	9,222,848

Source: American Horse Council Foundation



American Quarter Horse
Eden Wind Farm, Charleston, SC

According to the American Quarter Horse Association ("AQHA"), the organization that advocates for and tracks registration of the Quarter Horse breed, there are a total of 2.86 million registered Quarter Horses in the U.S. The disparity between the number of Quarter Horses reported in Exhibit 26 and the number of registered Quarter Horses may be due to horse owners reporting to the AHCF horses that are not registered with the AQHA and/or have partial Quarter Horse bloodlines, leading an owner to identify his or her horse as a Quarter Horse.

The AQHA reports a total of about 952,500 Quarter Horse owners in the U.S., meaning that each Quarter Horse owner has an average of three Quarter Horses. The AQHA reports that the most of its members are recreational riders, and sponsors many programs focused on recreational and trail riding.

Paint Horses

While the population of the Paint Horse breed is significantly smaller than the Quarter Horse breed, Paint Horses are extremely popular for recreational and trail riding. According to the American Paint Horse Association ("APHA"), the organization that advocates for and manages the registry of Paint Horses in the U.S., a total of about 811,400 Paint Horses have been registered in the United States since the organization began to track registrations in 1962. The APHA is unable to report how many Paint Horses exist in the United States today, since owners do not always report when their animals die. Approximately 38,033 Paint Horses were registered in the U.S. in 2004 and 401 were registered in South Carolina. Registration restrictions for Paint Horses are strict, meaning that there are likely many more horses with at least some Paint in their bloodlines that are not registered with the APHA.

Like the AQHA, the APHA sponsors programs to promote recreational and trail riding, such as "frequent rider" programs. Also, the APHA publishes guides for APHA enthusiasts interested in participating in recreational and trail riding, as well as those who wish to host their own large-scale trail ride event.



American Paint Horse
Painted Dreams Farm, Liberty, SC

Tennessee Walking Horses and American Saddlebred Horses

"Gaited horses" are appreciated by trail riders because they offer a riding experience that is smoother and more comfortable. Two of the most popular types of gaited horses are Tennessee Walking Horses and American Saddlebred Horses.

A typical horse has four gaits: walk, trot, canter, and gallop. Some gaits can provide the rider with a less than smooth ride that is not comfortable for rides of long duration. Tennessee Walking Horses and American Saddlebred Horses have an additional gait and also execute their gaits, particularly the trot, with extended leg action that acts as a "shock absorber" for the rider. This action (see Tennessee Walking Horse photo at right) provides a smoother, more comfortable ride. In addition, these breeds typically walk and trot much more quickly than other breeds, especially on flat surfaces (often called "moving out"). Therefore, some trail riders prefer these breeds because they can cover more distance over a shorter period of time. The breeds are also popular for Competitive Trail Riding. For these reasons, users with gaited horses likely will prefer longer trail length, though this can make the accommodation of large groups with both gaited and non-gaited horses more difficult. During discussions with users and competitive providers, PwC generally heard gaited horse owners prefer flat or slightly hilly terrain for trails.



Tennessee Walking Horse
Rising Star Ranch, TN

There are many other breeds considered to be "gaited." However, the Tennessee Walking Horse and the American Saddlebred are two of the more popular, higher profile breeds for trail riding. Like the APHA, the Tennessee Walking Horse Breeders' and Exhibitors' Association ("TWHBEA") has been unable to track the total number of registered horses living in the United States today. However, the TWHBEA did report that a total of 3,484 Tennessee Walking Horses have been registered in South Carolina since 1985 (195,757 in the United States). Calls to the American Saddlebred Horse Association for statistics on that breed were not returned.

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Arabian

The Arabian is one of the oldest distinct breeds of horses in the world. Despite their small size relative to other, larger breeds, Arabians are very strong and have a great deal of stamina. Because it is known for its extreme stamina and athleticism, the Arabian is one of the most popular breeds for use in Distance Riding. Endurance riders use Arabians almost exclusively.



Arabian Participating in
Endurance Ride

According to the Arabian Horse Association ("AHA"), there were approximately 614,000 registered Arabian horses in the U.S. in 2004. About 2,500 of these reside in South Carolina.

For quite some time, Arabians had a reputation of being somewhat inaccessible to the common horse owner. However, the AHA has begun placing greater emphasis on development of organized incentive riding programs (such as those sponsored by the AQHA and APHA) that serve to market the breed. Arabians have always been used for all types of recreational riding, but their popularity is growing. This is especially true as America's interest in extreme sports grows, since Arabians are the horse of choice for enthusiasts of endurance riding, which is considered an equine extreme sport.