

**NPS – Great Smoky Mountains National Park**  
**U.S. Department of the Interior**

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**Draft**  
**Elkmont Historic District**  
**Visitor Experience and**  
**Recreational Use Report**

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## List of Acronyms

ACHP	Advisory Council for Historic Preservation
DOI	Department of Interior
EA	Environmental Assessment
EHD	Elkmont Historic District
EIS	Environmental Impact Statement
GMP	General Management Plan
GRSM	Great Smoky Mountain National Park
NEPA	National Environmental Policy Act
NPS	National Park Service
RV	recreational vehicles
SHPO	State Historic Preservation Officer
USGS	United States Geological Survey
UTM	Universal Transverse Mercator

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# 1.0 Introduction

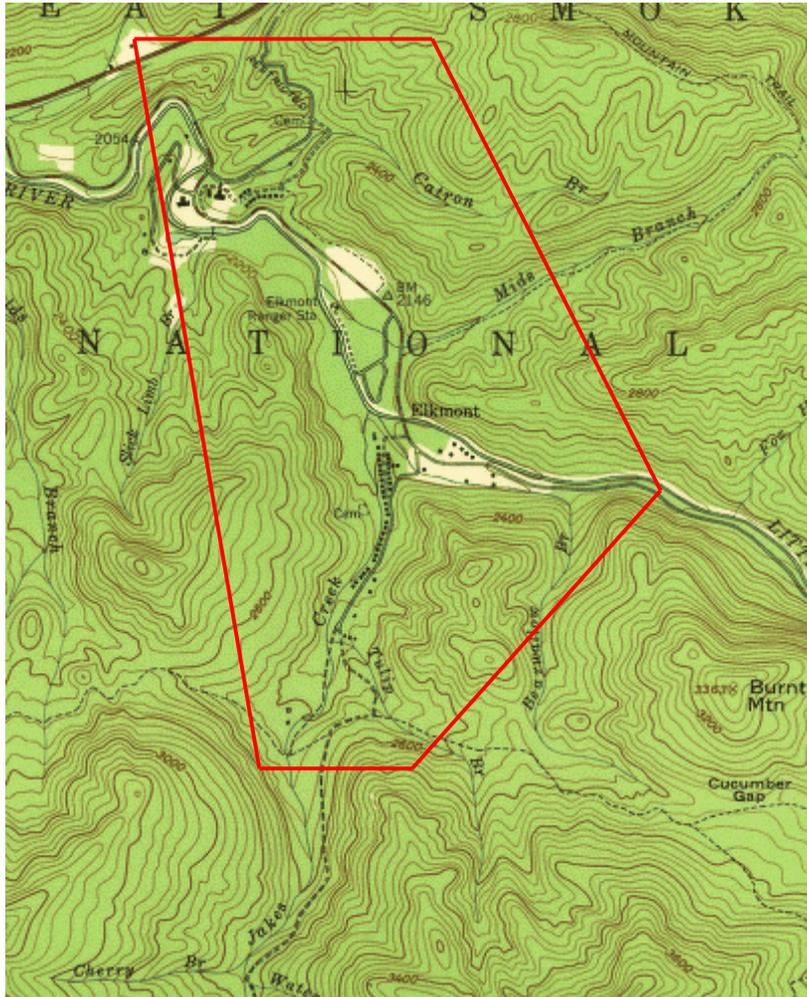
## 1.1 Issue

There are two hotel buildings, a social clubhouse, and more than 70 dwellings and out buildings in the Elkmont Historic District (EHD) within the Great Smoky Mountains National Park (GRSM).

The Park's General Management Plan (GMP), approved in 1982, called for removal of the structures upon termination of the lifetime leases and for the land to be restored to a natural state. GRSM did not execute the GMP in 1992 when most of the leases expired due to substantial debate over what should be done and to a lack of immediate funding. Since then the area has been managed under benign neglect with stabilization of some structures. Figure 1 shows the general vicinity of EHD, a legal description can be found in the Glossary to this report.

Due to public interest and subsequent historic district designation, GRSM is undertaking a review of the 1982 Management Plan using the environmental assessment (EA) process described in the National Environmental Policy Act (1969). This *Visitor Experience and Recreational Use Report* documents use within EHD and is a component of the baseline evaluations being made with regard to appropriate management actions for Elkmont.

**Figure 1. General Vicinity of EHD**



Adapted from USGS Gatlinburg Quad (1979).

## 1.2 Visitor Use and Access

If any one thing is conclusive about visitor use in GRSM, it is that it is likely to continue to increase, as it has historically since the Park opened in June 1931. Section 2 looks at historical visitation and user trends, tracing the general upward expansion of Park-wide visitation between 1931 and 2001.

This report endeavors to present an accurate, unbiased interpretation of both historical and current visitor experience and recreational use relative to the EHD. To the extent possible, actual data collected during the history of the Park has been used to derive a clear understanding of historical visitor use and shifting trends. Where written documentation specific to the Elkmont area could not be found, extrapolations based on Park- or North District-wide information have been made.

Various user groups contend that National Parks, in general, offer either too much or not enough of various types of user experiences. Some people are concerned that GRSM does not offer adequate wilderness or natural experiences, yet others claim the

Park does not rise to meet the range of cultural and historic interests that could be served by its unique history. Some are concerned about “too much traffic” or “overusing the natural environment,” while others feel that the purpose of such a park being established “...is so that people can get out and enjoy nature and see remnants of the past and the people who lived there.”

The position of Elkmont within the Park’s boundaries and ease of access to the area have ensured that it is one of GRSM’s more heavily used areas. The amount of use relative to available facilities often results in several activities occurring in immediate proximity to one another. This contributes to the perception of “too much use,” and it leads to other issues such as visitor experience and safety. A frequent complaint of Park visitors in peak months is that vehicular use negatively affects enjoyment of their Park experience. Another aspect of the issue relates to the access for the disabled as well as elderly and young visitors. Some argue for increased availability of motorized access to serve these groups, while others seek to have greater restrictions put on motorized access.

The University of Idaho’s Visitor Services Project conducted a *Visitor Use Study* at the Park in 1996. The report does not seek to draw conclusions about specific sites or areas of the Park and resource use within them; however several general conclusions can be drawn. The study indicates that 43 percent of summer visitors and 41 percent of all fall visitors to the Park accessed GRSM through the Gatlinburg entrance. (Littlejohn, 1997). This being the case and given the proximity of the Elkmont area to the Gatlinburg entrance and the Sugarlands Visitor Center, it is clear that a substantial number of visitors to the Park, particularly those staying for less than a full visitor day, could use trails and/or trailheads that originate in EHD.

### 1.3 Visitor Experience

Expectations for quality recreation experiences are different for various user groups, and they change over time. This raises contention between groups for whom quiet and solitude conflict with other groups who desire enhanced facilities and organized programs. The quality of visitor experience can also be affected by the amount of available support facilities (such as parking lots or rest rooms), the extent to which these facilities are crowded, and the availability of necessary information. Table 1 identifies many of the typical factors that shape outdoor recreation participation and the quality of recreational experience.

**Table 1. Typical Factors Shaping Recreation Participation and Quality of Visitor Experience**

<b>Personal Variables</b>	<b>Social/Cultural Variables</b>	<b>Environmental Variables</b>	<b>Contextual Variables</b>
Demographics <ul style="list-style-type: none"> <li>• Age</li> <li>• Gender</li> <li>• Race/ethnicity</li> <li>• Education</li> </ul>	Background variables <ul style="list-style-type: none"> <li>• Socialization</li> <li>• Community</li> <li>• Status/group dynamics</li> </ul>	Recreation opportunity	Weather  Psychological state  Length of stay
Personality <ul style="list-style-type: none"> <li>• Sociable – Solitary</li> <li>• Extrovert – Introvert</li> <li>• Sensation seeker or not</li> </ul>	On-site Variables <ul style="list-style-type: none"> <li>• Social group</li> </ul>	Spectrum Variables <ul style="list-style-type: none"> <li>• Regimentation of management</li> <li>• Interaction among users</li> <li>• Size of area</li> <li>• Remoteness</li> <li>• State of facilities provided</li> <li>• Evidence of human modification of the environment</li> </ul>	
Motivations <ul style="list-style-type: none"> <li>• Nature</li> <li>• Escape</li> <li>• Socializing</li> <li>• Vicariousness</li> <li>• Skill</li> </ul>		Other <ul style="list-style-type: none"> <li>• Biodiversity of setting</li> <li>• Challenge of environment</li> <li>• Access to trails</li> <li>• Access to urban centers</li> <li>• Availability of conveniences</li> </ul>	
Past Experience <ul style="list-style-type: none"> <li>• Frequency of participation</li> <li>• Length of time since first participation</li> <li>• Knowledge</li> <li>• Skill level</li> </ul>			

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## 2.0 Historical Overview of Visitation and User Trends

For more than a century, human influence has shaped the landscape at EHD. Elkmont developed first as a rough-and-tumble logging town and later as a settlement for hardy farmers. In the early part of the twentieth century, it became a retreat for the socially prominent and wealthy citizens of Knoxville, Maryville, and Chattanooga, Tennessee. By the early 1930s, numerous summer homes and cabins had sprung up along the Little River and Jakes Creek (Figure 2), with the Appalachian Clubhouse and Wonderland Hotel sitting prominently above the summer resort community.

**Figure 2. Medley of Cabins and Road Through “Club Town” (2002)**

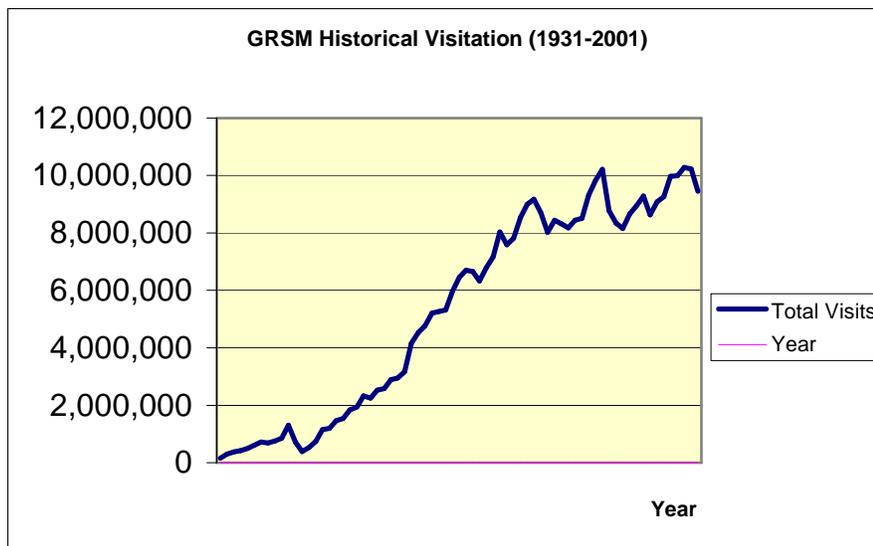


Like many towns that had their origins in the early part of the last century, particularly those centered on extraction of natural resources, Elkmont's reputation as a tranquil summer outpost has not been destroyed. Now as part of GRSM, hundreds of thousands of visitors from across the United States and beyond make their way to the area to enjoy camping, hiking, horseback riding, and fishing in the waters of the Little River, much as the early summer residents of Elkmont did.

The current trail system, or portions thereof, may date back to the days of early Native Americans who lived in and roamed the forests long before they were logged. However, many of the routes through this portion of the Park have been altered and converted by farmers and loggers and the summer resort community that grew up there. This landscape history is evidenced through the current forest within EHD.

By 1933, the Civilian Conservation Corps (CCC) employed as many as 100 men to work on the construction of an extensive system of trails throughout GRSM (Lix, 1958). The first shelters were in place along the Appalachian Trail by 1939, and the Park's annual visitation had already grown by nearly five times since 1931 (the year of the first available records). In 1941, the Park would see its first year of visitation exceeding 1 million people with a notable 1,310,101 visitors. Figure 3 depicts the visitation growth over the 70 years between 1931 and 2001.

**Figure 3. Historical Visitation Growth Park-wide (1931–2001)**



From its earliest days, GRSM has been a popular destination for visitors from places as varying as their interests. Located within a two-day drive for half of the United States' population, the Park has earned the distinction of being the most highly visited National Park in the country with annual visitation running between 9 and 10 million for much of the last decade [See Table 2, GRSM Visitors Report (1931–2001)].

**Table 2. GRSM Visitors Report (1931–2001)**

Year	Total Visits	% Change from Previous Year	GRSM Visits Attributed to EHD <sup>1</sup>	NPS Total Visits	GRSM % of Total National Visits
2001	9,457,373	-7.45%	378,295	279,873,926	3.38%
2000	10,218,858	-0.63%	408,754	285,891,275	3.57%
1999	10,283,598	2.95%	452,478	287,130,879	3.58%
1998	9,989,395	0.24%	429,544	286,762,265	3.48%
1997	9,965,075	7.55%	428,498	275,236,335	3.62%
1996	9,265,667	2.04%	379,892	265,796,163	3.49%
1995	9,080,420	5.24%	281,493	269,564,307	3.37%
1994	8,628,174	-7.06%	289,044	268,636,169	3.21%
1993	9,283,848	3.94%	338,860	273,120,925	3.40%
1992	8,931,690	3.20%	336,725	274,694,549	3.25%
1991	8,654,459	6.17%	339,255	267,840,999	3.23%
1990	8,151,769	-2.18%	295,909	258,682,828	3.15%
1989	8,333,533	-4.99%	318,341	269,399,837	3.09%
1988	8,770,871	-14.09%	345,572	282,451,441	3.11%
1987	10,209,841	3.80%	374,701	287,244,998	3.55%
1986	9,836,306	5.55%	360,992	281,094,850	3.50%
1985	9,319,290	9.53%	341,086	263,441,808	3.54%
1984	8,508,390	0.86%	299,495	248,785,509	3.42%
1983	8,435,475	3.15%	276,684	243,616,747	3.46%
1982	8,177,869	-1.62%	266,599	244,924,579	3.34%
1981	8,312,884	-1.52%	283,469	238,592,669	3.48%
1980	8,440,953	5.25%	314,848	220,465,179	3.83%
1979	8,019,788	-7.77%	289,514	205,371,787	3.91%
1978	8,695,534	-5.21%	313,909	222,186,020	3.91%
1977	9,173,600	2.03%	361,440	210,571,677	4.36%
1976	8,991,500	5.27%	440,584	216,556,776	4.15%
1975	8,541,500	9.40%	338,243	190,392,575	4.49%
1974	7,807,800	2.92%	359,940	171,056,774	4.56%
1973	7,586,300	-5.58%	342,142	168,924,873	4.49%
1972	8,034,753	12.01%	378,437	165,655,296	4.85%
1971	7,173,000	5.82%	258,945	153,695,171	4.67%
1970	6,778,500	7.07%	277,919	172,006,570	3.94%
1969	6,331,100	-5.04%	259,575	163,991,969	3.86%
1968	6,667,100	-0.64%	307,353	150,837,568	4.42%
1967	6,710,100	3.77%	307,994	139,677,567	4.80%
1966	6,466,100	8.58%	331,064	133,083,066	4.86%
1965	5,954,900	11.91%	323,351	121,313,965	4.91%
1964	5,321,100	1.19%	278,294	111,387,664	4.78%

**Table 2. GRSM Visitors Report (1931–2001) (continued)**

Year	Total Visits	% Change from Previous Year	GRSM Visits Attributed to EHD <sup>1</sup>	NPS Total Visits	GRSM % of Total National Visits
1963	5,258,700	0.94%	287,125	102,712,763	5.12%
1962	5,209,800	9.40%	282,892	97,046,762	5.37%
1961	4,762,100	5.16%	268,106	86,665,161	5.49%
1960	4,528,600	8.80%	256,772	79,230,960	5.72%
1959	4,162,300	31.35%	234,337	68,902,459	6.04%
1958	3,168,900	7.65%	198,056	65,462,858	4.84%
1957	2,943,700	2.01%	134,527	68,017,957	4.33%
1956	2,885,800	11.79%	160,739	61,604,256	4.68%
1955	2,581,500	2.16%	143,790	56,574,755	4.56%
1954	2,526,900	12.27%	115,479	54,212,154	4.66%
1953	2,250,772	-3.07%	96,108	52,270,127	4.31%
1952	2,322,152	19.38%	112,160	47,381,390	4.90%
1951	1,945,100	5.50%	105,424	37,108,391	5.24%
1950	1,843,620	19.74%	102,690	33,254,539	5.54%
1949	1,539,641	4.76%	75,596	31,738,351	4.85%
1948	1,469,749	22.07%	77,456	29,860,776	4.92%
1947	1,204,017	3.98%	59,599	25,536,135	4.71%
1946	1,157,930	54.25%	76,076	21,754,261	5.32%
1945	750,690	40.42%	49,320	11,715,797	6.41%
1944	534,586	39.54%	35,122	8,341,719	6.41%
1943	383,116	-47.43%	22,106	6,830,363	5.61%
1942	728,706	-44.38%	49,916	9,372,911	7.77%
1941	1,310,101	52.17%	81,881	21,238,888	6.17%
1940	860,960	13.05%	49,505	16,755,251	5.14%
1939	761,567	9.64%	43,790	15,530,636	4.90%
1938	694,634	-4.48%	44,457	16,331,467	4.25%
1937	727,243	20.76%	46,544	15,133,432	4.81%
1936	602,222	20.44%	38,542	11,989,793	5.02%
1935	500,000	19.05%	35,500	7,676,490	6.51%
1934	420,000	12.00%	36,540	6,337,206	6.63%
1933	375,000	25.00%	34,538	3,481,590	10.77%
1932	300,000	94.81%	21,000	3,754,596	7.99%
1931	154,000	--	--	3,544,938	4.34%

<sup>1</sup> Annual visits attributed to the EHD are based upon a percentage calculation for each year that was derived through determinations of backcountry, trail, and campground use at Elkmont relative to Park-wide statistics where available.

Historically, the North District, in which the area encompassing EHD is located, has sought to provide services and programs to communicate the unique natural and cultural resources of this region of the Park. Programs offered by rangers and interpretive displays at the visitor centers and roadside exhibits explain the unique aspects of the Park so that visitors may better understand the environment around them. More importantly, these programs stress why it is crucial to preserve environments such as the Great Smoky Mountains. The first programs, which began in the early 1930s, were less formal than those of today and consisted primarily of talks given by a Park ranger or naturalist at the request of particular groups and visitors to the Park. The year 1939 marked an important turning point in the general outreach and educational philosophy of the Park with the introduction of its first formally organized schedule of programs (Stupka, 1939). Within a few years of the formal establishment of guided walks, talks, tours, and presentations to a wide variety of civic and educational groups, the numbers visiting the Park and attending these programs expanded to require additional rangers to fulfill the overwhelming interest (Stupka, monthly reports 1939–1943).

Over the history of the Park, opportunities for people to learn about and experience the diversity and exceptional resources of this unique refuge have expanded, contracted, changed, and been refined to serve an ever-increasing population of visitors and enrich their Park experience. Section 3.5 of this report expands discussion of the history and primary program shifts in interpretive programs offered at Elkmont.

## 2.1 Data

Documentation over the past 67 years has been sporadic and inconsistent, and many of the shifts in recreational uses within EHD have not been reliably documented. This, in part, has been due to the unique history of the area and agreements entered into with the original cabin owners. This history makes difficult the task of determining the early origins of user experiences on the network of trails that originate within or from connecting loops to other trails within EHD, as well as those related to nature study, camping, fishing, and other recreational uses.

For some periods, excellent and detailed records have been kept, and a general history of visitor use can be determined from them. However, for other periods, the vast majority of records have not been either retained or maintained, in whole or in part, creating additional complexities in detailing use within EHD over the life of the Park. Also, more recent moves to consolidate information to a District- or Park-wide level present difficulties in assessing EHD-specific patterns. Thus, we must rely on a history of an interpretive nature, as given by those with extensive knowledge and experience within the Park (Cardwell, 2002; Carney, 2002; Minnigh, 2002; Ogle, 2002).

To the extent that reliable data were available, they have been used to document periodic fluctuations and user trends, as well as shifts in Park philosophy or themes that sought to address the needs and shifts in visitor use and interests over time.

## 2.2 Interviews

To supplement available notes, statistical summaries, roving reports, and other written documentation, personal interviews were conducted between April 30 and May 5, 2002, with NPS staff, past and present, who have had direct oversight and are familiar with various aspects of historical and current interpretive programs, trails, campground, and backcountry uses of EHD.

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## 3.0 Resource Use, Programs, and Patterns

Primary uses of the resources found within EHD can be placed into five broad categories of general visitor use: (1) trail use and access, (2) camping, (3) backcountry pursuits, (4) water-based activities, (5) educational programs, and (6) driving or walking through the cabin area. As presented in the following subsections, ample opportunities for both active and passive recreational activities exist within EHD.

### 3.1 Trail Use and Access

Some 60 miles of trails can be easily accessed from trailheads originating in EHD. Due to the extensive trail system, use by both day and overnight hikers constitutes a significant proportion of all recreational uses for the area. Figure 4 is taken from the NPS trail map for GRSM. Primary trailheads within EHD include the Little River Trail (6.2 mi.) and Jakes Creek Trail (3.3 mi.). The Elkmont Nature Trail (0.8 mi.) is self-guided with no arterial trail connections. The following discussion details use of these primary trails within EHD, with references to the secondary and tertiary connecting trails.

Between the Jakes Creek and Little River Trails, eight secondary and five tertiary connecting trails form loops to other trails within the region, providing a trail system with diverse terrain to satisfy novice and experienced hikers, as well as those on horseback.

The Little River Trail and its connecting trails constitute the most extensive system, covering approximately 38.8 of the 62.1 miles, or 62.4 percent of trail miles identified as originating within EHD. Jakes Creek Trail and its related trails traverse another 22.5 miles, or 36.2 percent of all trail miles represented, while the Elkmont Nature Trail, at 0.8 mile, represents 1.3 percent of the total. Figure 5 identifies the primary trailheads and the extensive trail network originating within EHD.

Figure 4. EHD Trail System

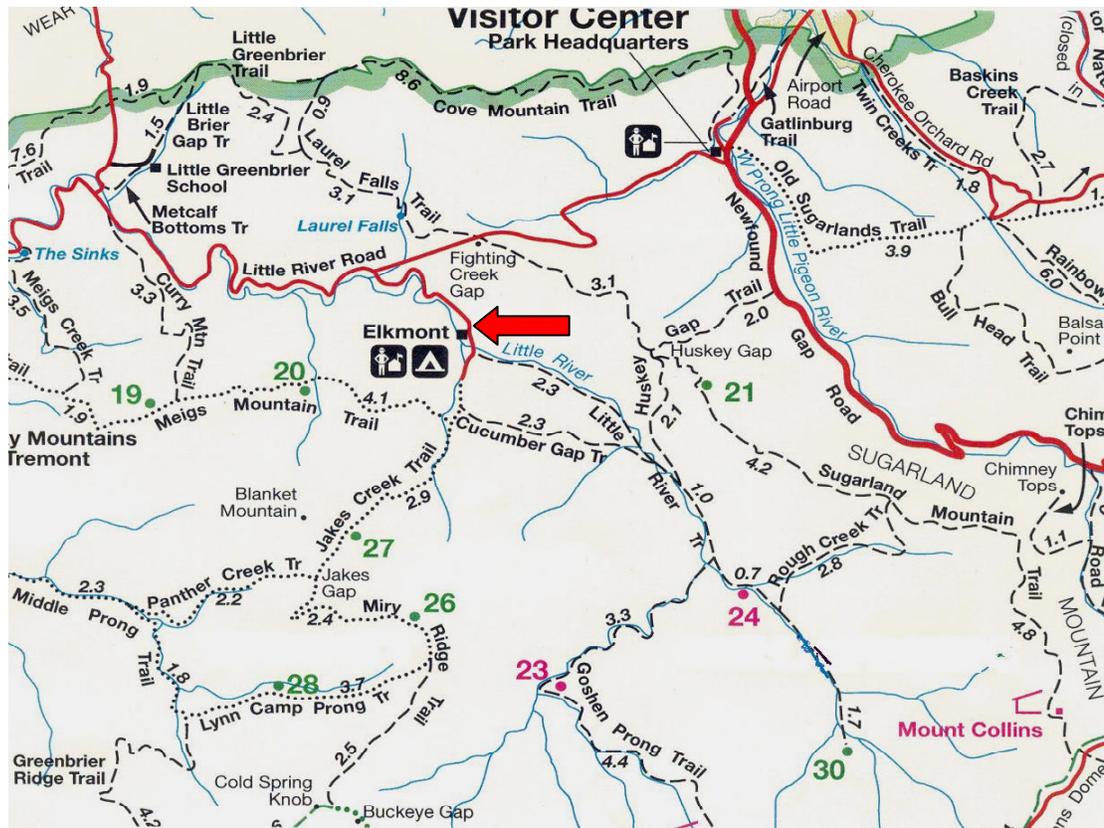
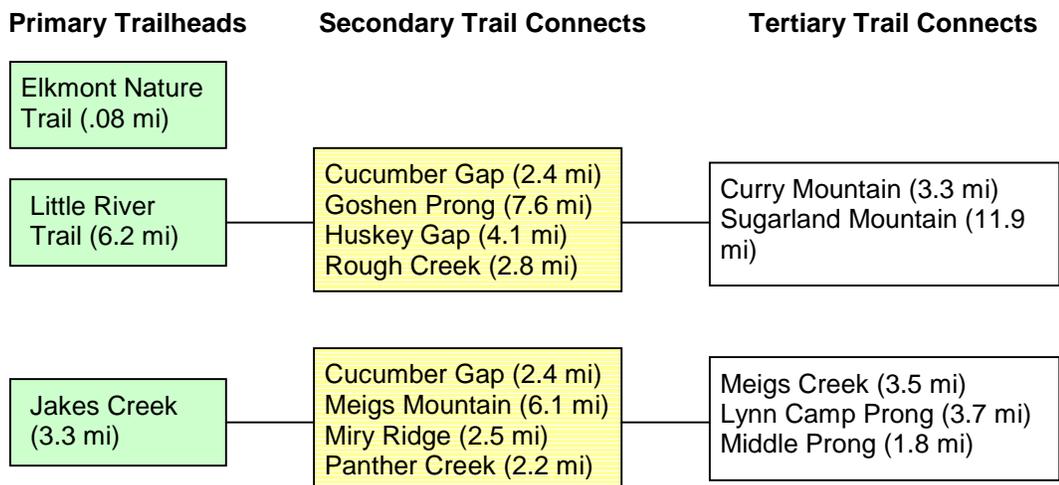


Figure 5. Flow Diagram of Trailheads and Connecting Trails Originating in EHD



Review of the map presented in Figure 1 and supplemental information on backcountry trails reflects the connectivity of the trail system, as well as the user categories allowed (hikers, horseback riders). Typical patterns of trail use are consistent with other areas of the Park, with lower levels of traffic observed between the months of November and March, giving way to increasing levels of traffic until

the peak summer months between June and August. Traditionally, trail use also falls off in September and then rebounds greatly in October when people come to view the vibrant colors of the forest during leaf change. Table 3 charts allowed trail use, trail lengths, and access trails within EHD.

**Table 3. Trailheads and Connecting Trails Originating in EHD**

Trail Name	Use Type	Length (miles)	Access Point
Little River	Hiking	6.2	Parking area in EHD near campground
Jakes Creek	Hiking, Horseback Riding	3.3	Parking area in EHD near campground
Curry Mountain	Hiking	3.3	Little River Road Trailhead and Meigs Mountain Trail
Cucumber Gap	Hiking	2.4	Little River and Jakes Creek trails
Goshen Prong	Hiking	7.6	Little River Trail
Huskey Gap	Hiking	4.1	Little River Trail
Elkmont Nature	Hiking	0.8	Little River Road
Meigs Mountain	Hiking, Horseback Riding	6.1	Jakes Creek Trail
Miry Ridge	Hiking, Horseback Riding (allowed in lower half only)	5.0	Jakes Creek Trail
Rough Creek	Hiking	2.8	Little River Trail
Sugarland Mountain	Hiking	11.9	Rough Creek and Huskey Gap Trails
Meigs Creek	Hiking	3.5	Meigs Mountain Trail
Panther Creek	Hiking, Horseback Riding	2.2	Jakes Creek Trail
Lynn Camp Prong	Hiking, Horseback Riding	3.7	Miry Ridge Trail
Middle Prong	Hiking, Horseback Riding	1.8	Panther Creek and Lynn Camp Prong Trails

### 3.1.1 Elkmont Nature Trail – (0.8 mi.)

This is a self-guiding nature trail. The trailhead is near the Elkmont Campground and receives significant foot traffic from campground users during the 6-month season between May and October, as well as those who travel to the Park for the day from nearby communities throughout the year. Users may pick up an informative brochure at the trailhead to guide them in “reading the landscape” at 13 points along the trail.

There is a small parking lot at the head of the trail. On the dates visited, April 30 and May 2, 2002, two and three cars were parked there, respectively. An inventory of automobile license plates revealed visitors from Tennessee, Ohio, Michigan, and Florida (2). According to NPS employees familiar with the trail, the heaviest traffic during the peak season is from campers who access the trailhead by walking from their campsites at the nearby Elkmont campground.

**Figure 6. Sign at Elkmont Trailhead**

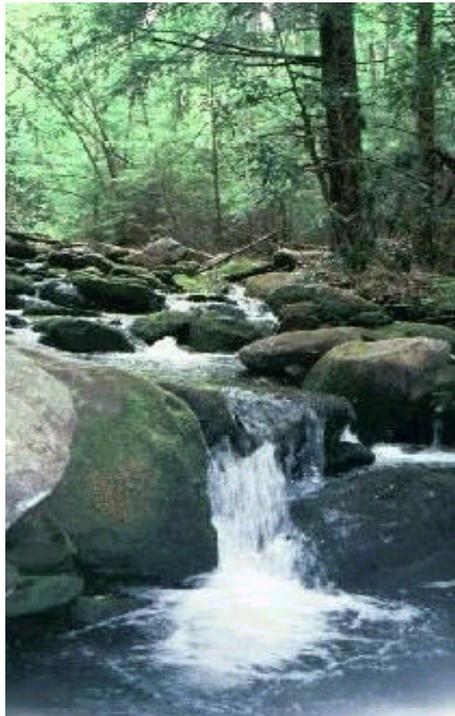


To date, no accurate counting measure has been employed to track actual numbers of hikers using the Elkmont Nature Trail. However, simple extrapolation during a sample base-year month for 2001, estimating a 2-5 percent camper trail use, reflects that 30-75 persons per month may be using the trail during the camping season.

### 3.1.2 Jakes Creek Trail – (3.3 mi.)

The Jakes Creek trailhead is a very popular spot that affords direct access to a number of other trails including Cucumber Gap, Little River, Meigs Mountain, Miry Ridge and Panther Creek Trails. Backcountry campsite number 27 falls along the trail, and backcountry sites 26 and 28 along Miry Ridge and Lynn Camp Prong Trails, respectively, are also accessed from the Jakes Creek trailhead. In addition, the trail provides a destination walk to Blanket Mountain (4,600 ft) and the Avent Cabin, the Mayna Treanor Avent Studio that was listed in the National Registry of Historic Places on February 7, 1994.

**Figure 7. Along Jakes Creek**



Jakes Creek Trailhead parking has not been closely tracked and averaged for any period of time. However, NPS employees familiar with the site and the trail system estimate that a weekend average of approximately 30 cars per day are parked at the trailhead during the six heaviest months of use, May through October (Minnigh, 2002). Weekday use during this same period is estimated to be approximately 10 cars per day. With an average of 2.5 persons per automobile, an extrapolated estimate of visitor use on Jakes Creek Trail for the months of May through October is approximately 275 persons per week, 1,155 persons per month, and 6,930 persons for the 6-month period.

The remaining 6-months of the year, November to April, generally receives lighter foot traffic overall with an estimated average of three cars per day. Using the same per person, per vehicle figure of 2.5, Jakes Creek Trail is used by an estimated 52.5 visitors per week, 220.5 per month, and 1,323 for the 6-month period.

Thus, the total estimated for the base year of 2001 reflects use of the trail and trailhead area by some 8,253 persons per year.

In 1992, a study underwritten by NPS that included mechanical monitoring and the use of camera systems, was carried out to assess not only the amount of traffic but also the percentage and types of hiker and horse use on GRSM trails (Van Cleave and Van Cleave, 1993). Several trails and trailheads within EHD were part of this study,

including Jakes Creek. The period of monitoring for the study ran from July through November on Jakes Creek Trail. Average hiker traffic per day was tabulated for each month. Table 4 is derived from information from this study and gives 1992 averages for the trails within Elkmont that were subject to the study.

Using the 1992 data for the months between July and November when data were collected on Jakes Creek Trail, it can be seen that traffic on the trail climbed from an average of 31.5 hikers per day in July to 46.7 in August, dropped in September to 30.8, peaked in October at 56.3, and then plunged substantially in November to an average of 24.2 hikers per day (Van Cleave and Van Cleave, 1992). Aggregate monthly totals are shown in Table 4. Thus, the total for the 5-month study period reflects use of the trail and trailhead by some 5820 persons. This compares closely to the NPS employee-estimated figure of 6,930 persons for the 6-month period between May and October 2001.

### 3.1.3 Little River Trail – (6.2 mi.)

The Little River Trail and its connecting trails, covering approximately 38.8 miles, provides the most extensive system of trails identified as originating within EHD. Typical uses of the trail include day hiking for exercise, scenic recreation, and access for anglers who fish the waters of the Little River. The Little River is one of the Park's most beautiful streams and touts the best trout fishing of all Park streams. Figure 8 reflects the serene beauty of the Little River.

**Figure 8. The Little River above Elkmont**



As with other trails within EHD, neither the parking nor the actual trail use has been tracked for any period of time for the Little River Trail and trailhead area; however, NPS employees estimate an average use on par with that experienced at Jakes Creek, with the addition of those who use the trail to access the river for angling (Minnigh, 2002).

Based on this information for the months of May through October, weekday use during this same period is estimated to be approximately 13 cars per day. With an average of 2.5 persons per automobile, an extrapolated estimate of visitor use for the months of May through October is approximately 325 persons per week, 1,365 persons per month, and 8,190 persons for the 6-month period.

**Table 4. Average Hiker Traffic Per Day, Elkmont Selected Trails (1992)**

Trail Location	Avg. Hiker/Day		Total/Month		Avg. Hiker/Day		Total/Month		Avg. Hiker/Day		Total/Month		Avg. Hiker/Day		Total/Month		Avg. Hiker/Day		Total/Month		Study Period Total
	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov												
<b>Sugarland Mt.</b> (Fighting Cr. Gap)	3.8	117.8	13.9	417.0	9.3	288.3	15.2	456.0	--	--	--	--	--	--	--	--	--	--	--	1,278.1	
<b>Huskey Gap</b> (Hwy 441)	--	--	18.1	543.0	10.9	337.9	13.3	399.0	14.4	446.4	13.7	424.7	14.7	441.0	14.8	458.8	7.4	222.0	3,272.7		
<b>Huskey Gap</b> (Little River)	20.9	647.9	9.8	294.0	8.0	248.0	12.5	375.0	8.6	266.6	6.6	204.6	6.0	180.0	11.6	359.6	8.9	267.0	2,842.7		
<b>Jakes Creek</b>	--	--	--	--	--	--	--	--	31.5	976.5	46.7	1,447.7	30.8	924.0	56.3	1,745.3	24.2	726.0	5,819.2		
<b>Cucumber Gap</b>	9.4	291.4	39.2	1,176.0	15.0	465.0	13.6	408.0	16.1	499.1	13.1	406.1	13.2	396.0	13.9	430.9	6.0	180.0	4,252.5		
<b>Meigs Mountain</b>	5.3	164.3	2.5	75.0	--	--	15.4	462.0	14.7	455.7	20.6	638.6	14.1	423.0	13.3	412.3	6.9	207.0	2,837.9		
<b>Meigs Creek</b>	--	--	22.0	660.0	23.5	728.5	18.4	552.0	23.4	725.4	26.6	824.6	16.7	501.0	34.7	1,075.7	9.5	285.0	5,352.3		
<b>Monthly Totals for Selected Trails in Elkmont District</b>	1,221.4		3,165.0		2,067.7		2,652.0		3,369.7		3,946.3		2,865.0		4,482.6		1,887.0		25,656.7		

(Adapted from: Van Cleave & Van Cleave, 1993)

As noted earlier, foot traffic drops off between the months of November to April, with an estimated average of six cars per day. Using the same per person, per vehicle figure of 2.5, the Little River Trail receives foot traffic from approximately 75 visitors per week, 315 per month, and 1,890 for the 6-month period.

Thus, the total estimated for the base year of 2001 reflects use of the Little River trail and trailhead area by some 10,080 persons per year.

## 3.2 Camping

The Elkmont Campground is located at an elevation of 2,150 ft and is currently the largest of all campgrounds within GRSM, with 220 “developed” sites as well as five designated group sites that accommodate between 15 and 30 people each. Group sites accommodate tents only, showers and electric hookups are not available.

The campground is generally heavily wooded and has a number of sites along the Little River that are particularly sought by tubers and trout fishermen. The campground has 12 restrooms, but no showers for bathing, and there are no electric, water, or sewer hookups at RV sites. At one time, the campground boasted between 360 and 400 sites, and today’s A–F loops were a “primitive” campground. In 1964, changes were made to improve the overall camping experience at Elkmont, increasing individual site size by reducing the total number of sites to the present 220 (Cardwell, 2002; Ogle, 2002, Palmer, 2002).

**Figure 9. Bridge over Little River near Elkmont Campground**



Historically the Elkmont campground was open on a year- round basis. However, because of federal budget constraints and NPS analysis in 1995, Elkmont’s season was curtailed from year- round operation to a March through November schedule (Cardwell, 2002; Ogle, 2002).

While records specific to the Elkmont Campground for the entire history of the Park could not be located, and/or recordkeeping methods were inconsistent and incompatible for comparative analysis, data for 1987 through 1993 were identified. Table 5 reflects annual visitor use information for this 7-year period. However, it is not known to what extent the method of data collection remained constant during this period. The total ranged between 113,242 campers in 1993 to 182,935 in 1988, giving an annual average number of 146,507 users for the 7-year span.

**Table 5. Elkmont Campground – Annual Visitor Use Breakdown (1987–1993)**

Activity	Total Numbers of Users by Year						
	1987	1988	1989	1990 <sup>1</sup>	1991	1992 <sup>1</sup>	1993
<b>Overnight Visits</b>							
Tents	59,835	73,483	54,941	59,032	62,629	65,739	62,645
RV's/Trailers	57,276	70,508	55,548	55,374	55,708	55,876	39,294
Groups (except backcountry)	3,914	5,058	3,908	42,506	7,206	6,123	400 <sup>2</sup>
<b>TOTAL OVERNIGHT</b>	<b>121,025</b>	<b>149,049</b>	<b>114,397</b>	<b>156,912</b>	<b>125,543</b>	<b>127,738</b>	<b>102,339</b>
<b>Picnic</b>							
No. Parties	524	812	226	353	81	--	--
No. Persons	327	2,077	653	883	10,113	--	--
<b>TOTAL</b>	<b>851</b>	<b>2,889</b>	<b>879</b>	<b>1,236</b>	<b>10,194</b>	<b>--</b>	<b>--</b>
<b>Miscellaneous</b>							
Hiking	23,747	14,766	1,702	4,036	3,731	4,133	4,434
Horseback Riders	216	156	26	65	62	94	107
Swimming	2,861	8,543	1,358	3,082	3,140	2,544	2,956
Fishing	2,057	4,142	1,276	2,157	1,399	1,752	1,889
Canoeing/Kayakers	28	44	189	327	128	129	137
Tubing	846	3,346	2,716	2,687	2,272	1,846	1,380
<b>TOTAL</b>	<b>29,755</b>	<b>30,997</b>	<b>7,267</b>	<b>12,354</b>	<b>10,732</b>	<b>10,498</b>	<b>10,903</b>
<b>TOTAL FOR YEAR</b>	<b>151,631</b>	<b>182,935</b>	<b>122,534</b>	<b>170,502</b>	<b>146,469</b>	<b>138,236</b>	<b>113,242</b>

<sup>1</sup> Metcalf Bottoms opens, picnic area at Elkmont closed.

<sup>2</sup> Inconsistency in recordkeeping. Figure appears to be for 1-2 month period only.

Data taken from GRSM campground sales records located for 1998 through 2001 show total numbers of campers for each of the group sites, the main campground, the riverside, and walk-in sites within Elkmont. In 1999, reconfiguring the large group site for which 1998 totals are given, the Park created a specialized site for disabled visitors, and two additional group sites. Based on available data, the total number of visitors to the Elkmont Campground between 1998 and 2001 was 187,444; the total camper-nights, 449,887; and revenue generation, nearly \$1.9 million for the 4-year period. Due to changes made to the campground as of 1999, there is a sizeable decline in all categories. Thus, a more accurate current interpretation of campground users, camper-nights, and revenue streams can be based on an annual average of 46,861 people visiting the Elkmont Campground, an average of 112,472 camper-nights per year, and an average of \$459,631 in revenue generated for the most recent 3-year period between 1999 and 2001.

Of the reported number of people staying at the nine GRSM campgrounds in 2000 and 2001, those staying in Elkmont Campground represented 40.5 percent and 36.1 percent, respectively. Correspondingly, the total number of camper-nights in Elkmont Campground represented 42.2 percent and 38.7 percent of all camper-nights in this same 2-year period. The sheer number of people alone, however, does not reflect the significance of the contribution Elkmont Campground makes through income generation. In Table 6, it can be seen that the Elkmont Campground generated \$452,990 and \$448,738 in 2000 and 2001, respectively. Against the backdrop of total revenue from all Park campgrounds for the same 2-year period (\$1,013,201 in 2000 and \$1,030,379 in 2001) Elkmont Campground represents some 44.7 percent and 43.5 percent of income generated through all camping sales at GRSM during these fiscal years.

Figures shown for 1998 through 2001 in Table 6 demonstrate the popularity of Elkmont Campground, which often requires summer campers to make reservations months ahead to be sure to get prime creek-side campsites.

### 3.3 Backcountry

As of 1955 GRSM had 15 backcountry shelters and "...at least 10 temporary areas for those visitors who prefer the primitive-type where there are few facilities." (USDI, 1955). While it is unclear when the policy of camping permits was instituted, it dates back until at least the early 1950s, requiring permits be issued for all backcountry camping. By 1969, the Park had 18 backcountry shelters and maintained some 713 miles of trails. (GRSM, 1969).

In 1972, a rationing system for camping along the Appalachian Trail (AT) and other popular trails within the Park was implemented. Rationing was instituted to address problems of large groups and proportions of visitors camping in and around shelters, creating substantial resource damage and crowding (Schlatter, 1972, GRSM Pamphlet, 1972).

The 1982 General Management Plan identifies some 478,184 acres, or 93 percent of the GRSM land as being within the "Natural Zone," which effectively constitutes the Park's backcountry area. In 1983, the first advanced reservation and first-come/first-served requests for backcountry camping were introduced (Click, 1983). By 1993 the number of backcountry sites had grown to 84 designated sites (51 open to horses, 15 rationed) and 18 shelters (13 open to horses, and all rationed). For this same year the Park reported some 96,459 backcountry overnight stays, representing the sixth highest backcountry use within NPS (USDI, 1993).

Today, in 2002, there are 102 designated backcountry sites, 8 of which (i.e., those designated as 19, 20, 21, 23, 24, 27, 28, and 30) are within the vicinity of EHD (Figure 1). Four camping shelters (Derrick Knob, Silers Bald, Double Spring Gap, and Mount Collins) are accessible from the Jakes Creek and Little River Trailheads. Campers using these campsites self-register for overnight use by completing a camping permit at one of the 13 self-registration stations in the Park. The vast majority of the permits for these campsites are issued through the Sugarlands and Elkmont Campground permit stations (Minnigh, 2002).

While detailed records have not been held for every backcountry site, records for sites 23 and 24 were found dating back to 1995. As shown on the map in Figure 4, these sites are accessed via the Goshen Prong and Little Creek Trails (Gray, 2002). Table 7 reflects use of these two backcountry sites for the 5-year period between 1995 and 1999.

Table 6. Elkmont Campground Sales Report Records (1998–2001)

Year/Category	Campground Type						
	Group 1 (30)	Group 2 (20)	Group 3 (15)	Group 4 (20)	Main	Riverside	Walk-in
<b>1998</b> <sup>1</sup>							
No. People	2,643	--	61	--	38,643	12,341	3,122
No. Camper-nights	5,784	--	73	--	76,122	38,760	10,903
Dollars (\$)	95,938.00	--	138.00	--	330,464.50	154,845.00	35,400.00
<b>1999</b> <sup>2</sup>							
No. People	1,344	893	798	649	34,125	11,496	5,199
No. Camper-nights	3,323	2,087	1,806	1,305	79,931	33,172	8,652
Dollars (\$)	6,464.00	3,927.00	3,105.00	2,854.00	279,945.00	134,915.50	45,175.50
<b>2000</b> <sup>3</sup>							
No. People	951	842	658	704	23,801	9,161	3,690
No. Camper-nights	2,417	1,699	1,235	1,415	59,927	24,642	6,659
Dollars (\$)	4,512.00	3,465.00	2,415.00	3,135.00	271,507.50	131,117.50	36,280.00
<b>2001</b> <sup>4</sup>							
No. People	1,090	640	498	588	23,485	9,130	3,338
No. Camper-nights	2,582	1,605	1,159	1,429	57,165	25,237	6,023
Dollars (\$)	4,848.00	3,069.00	2,231.00	2,970.00	265,446.50	135,910.00	33,617.50

<sup>1</sup> April–October 1998. Group Camps 2 and 4 and camping area for the disabled not in existence.

<sup>2</sup> February –31 October 1999.

<sup>3</sup> January –31 October 2000.

<sup>4</sup> 2001 figures taken from the only available summary that reports NPS usage for campgrounds between October 2000 and September 30, 2001.

**Table 7. EHD, Backcounty User Trends for Sites 23 and 24 (1995–1999)**

Year	Camper-nights per year (rationed)	Total Annual Camper-nights <sup>1</sup> (rationed & unrationed)	Total Annual Camper-nights	Park-wide Total Annual Camper-nights	% of Park Total Camper-nights
<b>1995</b>					
Site 23	1,002	1,432.9	2,954.4	94,541.6	3.1%
Site 24	1,064	1,521.5			
<b>1996</b>					
Site 23	1,128	1613	4,214.2	102,385	4.1%
Site 24	1,819	2601.2			
<b>1997</b>					
Site 23	1,155	1,651.7	4,114.2	92,851.3	4.3%
Site 24	1,722	2,462.5			
<b>1998</b>					
Site 23	1,246	1,781.8	4,135.6	95,977.3	4.3%
Site 24	1,646	2,353.8			
<b>1999</b>					
Site 23	1,203	1,720.3	4,046.9	92,994.3	4.4%
Site 24	1,627	2,326.6			
<b>Total 1995–1999</b>	13,612	19,465.3	15,251.10	478,749.5	

The system of trails within the vicinity of EHD provides very high-quality exposure to the natural resources of the Smoky Mountains and are the main draw for hikers to this portion of the Park. The forest has recovered from logging through natural regeneration and high rates of growth, particularly in the alluvial floodplain. The trail system provides access to high elevation scenery for the hardest hikers. The easy grade of Little River Trail makes it a popular hike for novice overnight backpackers to the lower elevation backcountry campsites.

**Figure 10. Heading to Elkmont’s Backcountry**



Monthly use trends for overnight stays for 2001 are derived from the self – registration records submitted at Elkmont Campground (Table 8). In the year 2000, an estimated 857 cars parked overnight at the two trailheads for an average of two nights each. This estimate is based upon use figures for the seven backcountry campsites accessed from these two trailheads. Little River Trailhead receives 61 percent of this overnight parking use (Minnigh, 2002).

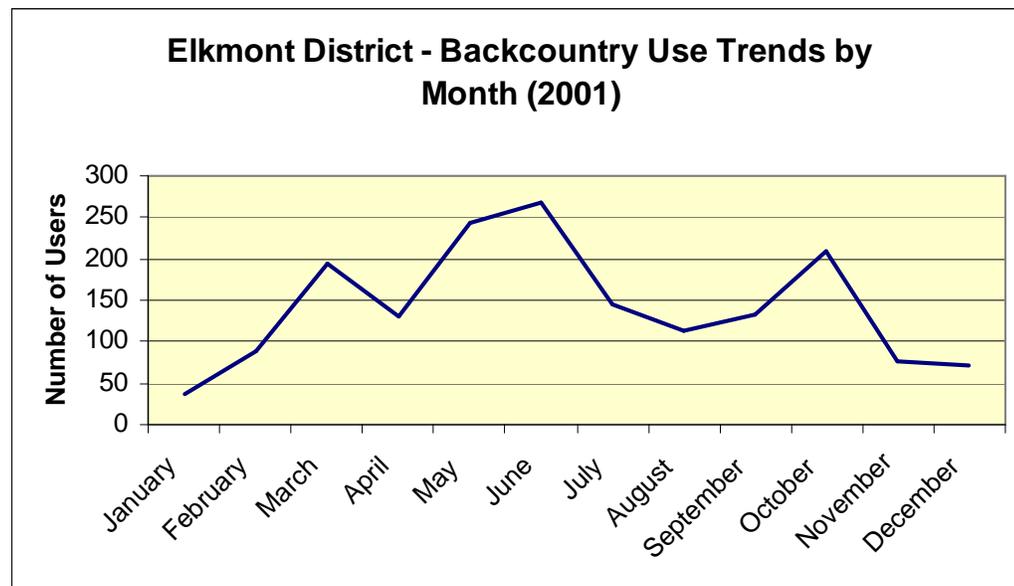
A sampling of permits over the 3-year period between 1997 through 1999 revealed that backcountry use permits average 2.7 people, 2.2 nights, and 5.9 camper-nights per permit (Minnigh, 2002).

**Table 8. Backcountry Use Trends for Overnight Stays by Month (2001)**

Month	Number of Permits <sup>1</sup>	Number of Users <sup>2</sup>	Total Camper-nights / Permit <sup>3</sup>
January	14	37.2	83.1
February	33	87.6	195.8
March	73	193.8	433.2
April	49	130.1	290.8
May	92	244.3	546
June	101	268.2	599.3
July	55	146	326.4
August	43	114.2	255.2
September	50	132.8	296.8
October	79	209.7	468.7
November	29	77	172.1
December	27	71.7	160.2
<b>Totals for 2001</b>	<b>645</b>	<b>1,712.6</b>	<b>3,827.6</b>

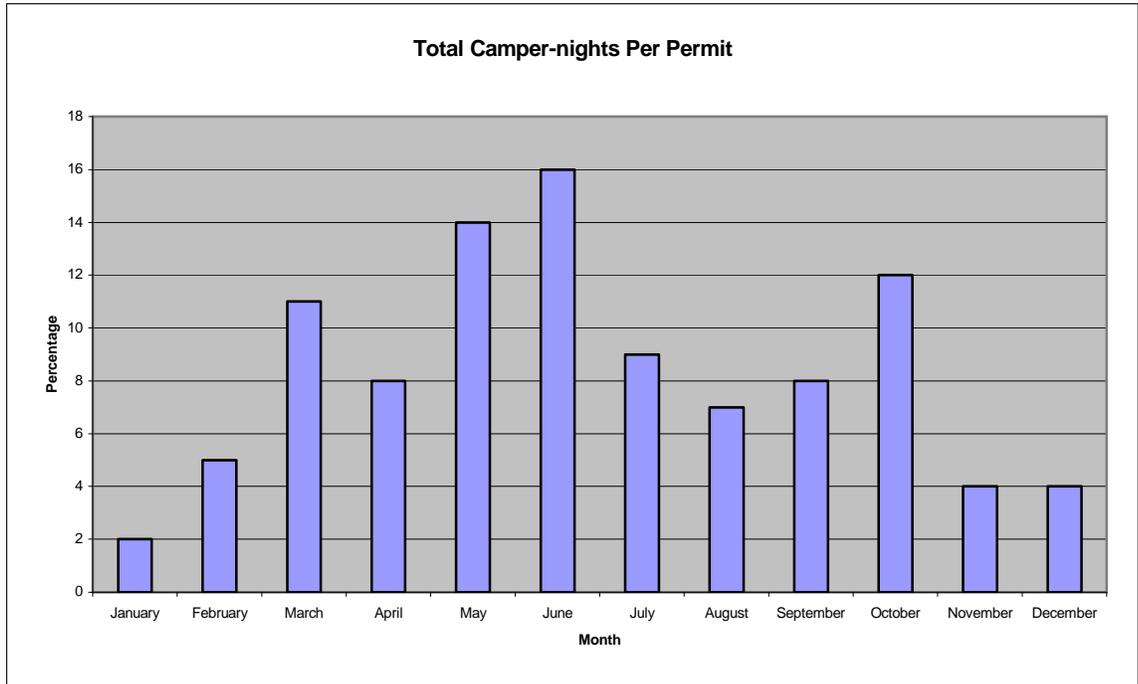
As can be seen in Figure 11, the number of monthly backcountry users expanded in May, peaked in June, and then dropped again in August, with a gain in September and an autumnal peak in October 2001. This pattern appears to be typical when compared to other uses, particularly low elevation camping and trail use trends within EHD.

**Figure 11. Elkmont Monthly User Trend for Backcountry 2001**



In Figure 12, the total number of camper-nights per permit for the backcountry area is shown with monthly figures for the percent of total backcountry camper-nights per permit (Minnighs, 2002). June (16 percent), October (12 percent), and May (11 percent) are top months, with January (2 percent), April (4 percent) and November (4 percent) at the bottom.

**Figure 12. Elkmont Breakdown of Monthly Camper-nights Per Permit**



### 3.4 Water-based Activities

Fishing attracted visitors to the Smoky Mountains well before creation of the Park. Little River is considered to have some of the best trout fishing in the region. Originally the native brook trout was present in most streams above 2,000 feet elevation. However, extensive logging operations in the early 1900s increased water temperature due to the removal of shade trees overhanging the stream banks and caused sedimentation into the streams from soil erosion on the denuded hillsides. This resulted in elimination of brook trout from about 50 percent of its original range, leading to the stocking of both brook and brown trout. Brook, brown, and rainbow trout were introduced into Smoky Mountain streams by various groups, including logging companies, private citizens, and the state of Tennessee prior to Park establishment.

During visits to EHD in late April and early May 2002, both fly and spin anglers were found fishing in waters of the Little River near the roadside leading to the Elkmont Campground, as well as in other areas along the river. Table 5 reflects totals for fishing within the EHD between 1987 and 1993, peaking in 1988 at 4,142, an average of 2,096 for the 7-year period (Monthly Public Use Reports, 1987–1993, GRSM).

**Figure 13. One of the More Than 2,000 Fishermen Who Frequent the Waters of the Little River Annually**



In addition to fishing, the waters that run through EHD provide for a number of other water-based activities. Table 5 provides a general breakdown of visitor use within Elkmont. Based on averages taken for the 7-year sample period between 1987 and 1993, some 3,000 swimmers, 140 canoer/kayakers, and more than 2,100 tubers cool their toes and quench their recreational interest thirsts annually.

### 3.5 Education/Interpretation

Drafted in 1918 by the National Parks Educational Committee to encourage educational opportunities in National Parks, the following objectives are among the earliest expressions of NPS founders concerning Park management.

- *To educate the public in respect to the nature and quality of the national parks,*
- *To further the view of the national parks as classrooms and museums of nature,*
- *To use existing publicity and educational systems so as to produce a wide result,*
- *To combine in one interest the sympathy and activity of schools, colleges, and citizen organizations in all parts of the country, and*
- *To study the history and science of each National Park and collect data for future use.*

From the earliest days of the GRSM, its extensive and varied resources have served as the backdrop for research and learning. The Park provides a practical outdoor laboratory for scientists of multiple disciplines as well as classrooms for children experiencing for the first time the sensory pleasures and magnitude of the mountains and the rich diversity of the Park's natural communities.

Records kept for nearly 30 years by Arthur Stupka, the Park's first naturalist, detail the busloads of visitors who would travel from distant universities. Numerous visitors also came to view, experience, and study the diversity of the flora and fauna within the Park (Stupka, Park Naturalist Reports, 1926–1957). Among other things, Stupka's thorough written journals also documented, with striking narrative detail, the

activities of staff, weather conditions, museum activities, wounded animals, visitor activities, and bear kills. While difficult to analyze by simple numeric calculations, records of this nature provide a wealth of concise information pertaining to the Park's early history, shifts in management policies, and the evolving philosophy within Park administration toward the role of education and interpretive services provided. These early interpretive programs relied heavily upon hiking trips and lectures given outside the Park since there were no museums or interpretive facilities at this time. The following excerpts are taken from Stupka's notes on interpretive activities in 1939 and 1944:

*... This, the first program of nature-guide services to be offered in the Great Smoky Mountains National Park, was begun on July 5 and was terminated on October 30, 1939.... Reaction of the persons who made up the hiking parties and listened to lectures was most favorable—not only in numbers who attended but particularly by remarks were heard. Altogether 6,867 persons were contacted during the period, July 5 to October 30. ... For the 1940 season there is need of more ranger-naturalists ... More lectures will be given in 1940 and, as a result of our experience in 1939, a better all-around program will be offered. (Stupka, 1939).*

*... This being the third year of the war, no ranger-naturalists were employed; as in 1943, the park naturalist was alone in conducting the program. Although travel restrictions were such that no private cars were used in delivering persons to the start of various trails... and all travel was by bus or on foot, the increasing number of Park visitors justified a more ambitious program. A total of 90 hiking trips were conducted in contrast to 78 in 1943; 67 talks were given in contrast to 43 in 1943. Average attendance on hiking trips was the highest it has ever been, and the average attendance was practically equal to the 1940 figure. Altogether 11,031 contacts made represent an increase of 58% over the 1943 figures:*

Average Attendance:	<u>1939</u>	<u>140</u>	<u>1941</u>	<u>1942</u>	<u>1943</u>	<u>1944</u>
Hiking trips	22	25	27	24	26	28
Illustrated talks	120	123	110	97	104	122

*(Stupka, 1944)*

While resource education or interpretive activity is but one of many recreational user experiences within EHD and the greater GRSM, it is perhaps one of the most important, and is key to the overarching objectives of the Park. As with all things, time has brought change to the general understanding and expectations of what is broadly known as education; this has impacted the nature and direction of programs offered over time. Table 9 provides a glimpse of program offerings at Elkmont between 1965 and 1978. Perhaps logically, many of the earliest programs focused heavily on the natural elements of the Park. However, over the course of time, balancing the coverage of offerings between natural and cultural resources of the area is a noted trend.

**Table 9. Various Educational and Interpretive Programs Offered at Elkmont (1965–1975)**

<b>Year</b>	<b>Period</b>	<b>Program Type</b>
1965	June 15–Sept 6	<p><b>Illustrated Talks</b></p> <ul style="list-style-type: none"> <li>Birds of the Smokies</li> <li>Animal Life of the Smokies</li> <li>Let's Talk About Bears</li> <li>Exploring the Great Smokies</li> <li>Come See the Smokies</li> <li>Smoky Mountain Wildflowers</li> <li>The Story of the Mountain Pioneers</li> </ul> <p><b>Nature Walks</b></p> <ul style="list-style-type: none"> <li>Cucumber Gap</li> </ul>
1970	June 18–Sept 1	<p><b>Illustrated Talks</b></p> <ul style="list-style-type: none"> <li>Let's Talk About Bears</li> <li>The Forest</li> <li>Mountain Pioneers</li> <li>Exploring the Smokies</li> <li>Come See the Smokies</li> <li>America's Wonderland</li> </ul> <p><b>Nature Walks</b></p> <ul style="list-style-type: none"> <li>Mids Branch</li> <li>Little Greenbrier School</li> </ul>
1975	July 6–Aug 2	<p><b>Illustrated Talks</b></p> <ul style="list-style-type: none"> <li>Astronomy Program</li> <li>Wildflowers of the Smokies</li> <li>Let's Talk About Bears</li> <li>Mountain Music Program</li> <li>Shall I Walk or Shall I Ride? Hiking in the Smokies</li> <li>Indian Lore and Legends</li> <li>House on Your Back</li> <li>Whistle Over the Mountain: Story of Elkmont</li> </ul> <p><b>Nature Walks</b></p> <ul style="list-style-type: none"> <li>Cucumber Gap</li> <li>Explorers Hike: Stream Study</li> <li>Quiet Pools and Cascades</li> <li>Mids Branch</li> <li>Little Greenbrier School</li> </ul>

As one of the focal visitor concentration points in the Park, EHD by the early 1980s, offered an extensive spectrum of interpretive program events. Some of the “walks and talks” offered, even today, bear names and follow routes developed 20 or more years ago. Yet new programs have also been put into the traditional mix of ranger-led programs, from the “Nature’s Palette” artist walk to “Remember This Special Place” an exploratory talk on individual meanings and feelings about the Smokies.

Numerous diversified “walks and talks” and campfire programs aim at reading the landscape, as well as the natural and cultural history of the area.

Interpretive program contacts, based on a 5-month period for which detailed roving reports were found, are analyzed below in Table 10 with respect to programs offered and contacts made at Elkmont during this period. While this may not represent a complete picture of the array of interpretive programs and ranger contacts through such programs, it does offer a fairly detailed account of the range of “walks and talks” given during this time frame, as well as contacts made with Park visitors during roving reports.

**Table 10. Interpretive Program Contacts at Elkmont (June–October 1998)**

Ranger Interpretive Contact/Program	Number of Persons Per Mth					Total for 5-mo. Period
	June	July	Aug	Sept <sup>2</sup>	Oct <sup>3</sup>	
Elkmont Campground	932	1596	609	58	186	3381
Elkmont VIP Talks	6	--	--	3	--	9
Elkmont Weekly Talks	87	418	367	83	326	1281
Elkmont Stream	12	17	8	--	6	43
Elkmont Town	71	399	61	--	26	557
Jakes Creek	--	--	9	--	--	9
Upper Little River	--	6	13	--	10	29
Elkmont Slik Limb	--	8	10	--	22	40
Elkmont Mids Branch	6	--	8	--	--	14
Elkmont Bear Wallow	11	14	18	15	16	74
Junior Ranger Program Elkmont	23	28	6	--	--	57
<b>Monthly Totals</b>	<b>1,148.00</b>	<b>2,486.00</b>	<b>1,109.00</b>	<b>159.00</b>	<b>592.00</b>	<b>5,494.00</b>

<sup>1</sup> Taken from raw data from Ranger roving contact reports, accuracy and completeness is dependent upon reports recovered for his period.

<sup>2</sup> Data for September 1998 is incomplete.

<sup>3</sup> Data for October 1998 is incomplete.

In addition to the typical “walks and talks” and campfire programs offered, GRSM has also undertaken other educational avenues including “Parks as Classrooms.” This was a pilot program for a 5-year period (1991–1996) seeking to integrate the Park’s natural and cultural values with interdisciplinary learning experiences, while meeting the state’s curriculum requirements. The “Parks as Classrooms” program underwent a comprehensive evaluation in late 1996 and is still in place to teach youth about the significance and interconnectedness of all things.

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## 4.0 Significance of Visitor Experience

Within the boundaries of EHD are a wide variety of recreational opportunities provided by the diversity of the land, area, and facilities.

Primary uses by visitors to EHD include:

- Camping
- Backcountry camping
- Day hiking
- Fishing
- Swimming
- Canoeing/kayaking
- Conducting research
- Driving and walking through the cabin area

While at Elkmont, visitors enjoy the following activities, some of them are seasonal in nature, such as wildflower and leaf-change viewing, and cross-country skiing.

- Birding
- Wildflower viewing
- Ranger-led walks
- Campfire programs
- Photography
- Christian ministry services
- Picnicking
- Wildlife observation
- Fall leaf-change viewing
- Cross-country skiing

The campgrounds, trails, cabins, Wonderland Hotel, and Appalachian Clubhouse provide very high-quality exposure to the natural and cultural resources of the Smoky Mountains and are the main draw for visitors to this portion of the Park. Although the trails are on the logging railroad traces, the forest has largely recovered from human use impacts. Little River is one of the most scenic streams in the park and has the best trout fishing of all streams there. The trail system provides access to high-elevation scenery for the hardest of hikers. The easy grade of Little River Trail makes it a popular hike for novice overnight backpackers to backcountry site 24 (Minnigh, 2002).

The opportunities for diverse visitor experiences are determined largely by the variety, attractiveness and accessibility of the natural and cultural resources to visitors and the relationship of these to resources to the Park's purpose and significance. To define and manage a range of visitor experiences appropriate to GRSM, and EHD specifically, the resource characteristics must be clearly understood.

In addition to a clear understanding of resource characteristics, it is imperative that the ability of the resources at hand to withstand or tolerate certain types and amounts of use is recognized. Providing opportunities for visitors to experience resources must be undertaken in the context of resource protection and preservation. Different resources have different abilities to accommodate various visitor activities. Identifying the most sensitive resources or resource areas is an initial step in ensuring the provision of appropriate types and levels of visitor use. This will be an important undertaking for EHD, and will serve to reveal the extent to which certain resources within the area may require resource protection measures, as well as those that tolerate more intensive visitor use.

As a unit, EHD is a physically definable and experientially different space within the Park's landscape. The area has a unique "floor plan" with a collection of individual rooms or "landscape units" that can be entered and experienced, e.g., the campground, the cabin area, Little River and Jakes Creek. To date, the individual units of EHD have not been identified or mapped to give a clear concept of its "floor plan". Further work must be done to comprehensively plan for EHD's future.

In accomplishing this task for GRSM, defining elements of the landscape units involve locating and mapping such elements as prominent ridge lines, steep topographic slopes, forest edges, architectural walls, buildings, landscape plantings, junctions between land use areas, and land cover patterns that dominate the area.

Once landscape units are defined, the experiential qualities of each unit can be more precisely described. Characterizing the experiential qualities of the landscape units may show that some units provide very similar kinds of experience opportunities. Landscape units that share experience characteristics are typically grouped into opportunity areas.

For each of the potential opportunity areas within EHD, evaluation will be required to ascertain attributes that could support or sustain visitor use, as well as the relative abundance of various resources and the comparative importance of each area to the Park's purpose, significance, and primary interpretive themes. This analysis will assist in comparing the human values inherent in each of the opportunity areas and those where resource sensitivity may be in conflict with desired visitor use. Furthermore, it will facilitate determining the potential range of visitor experiences and management zones for EHD. The analysis for specific attributes for potential opportunity areas in the EHD, include the:

- Relative abundance of the resource area, both in and outside the Park
- Ability of the resource area to conceal the evidence of visitor use or development
- Ability of the resource area to support or sustain visitor use
- Potential interest of the resource to visitors

- Relative importance of the area to the Park purpose, significance, and primary interpretive themes
- Sites or features in the resource area that are of critical importance to the Park's purpose, significance, and interpretive themes

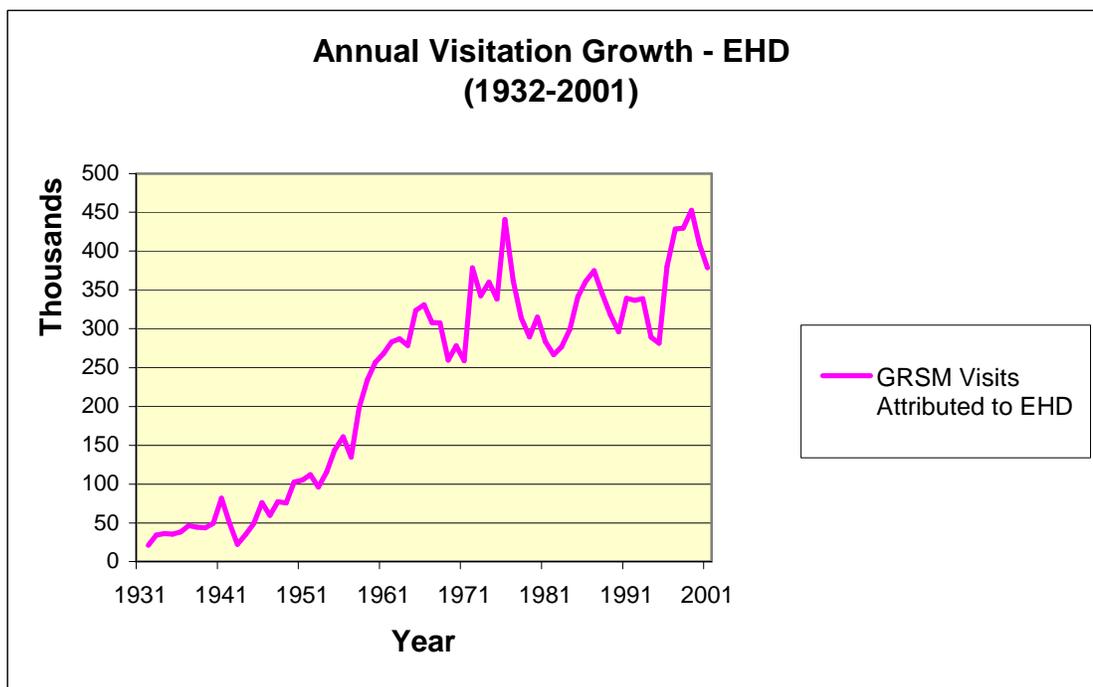
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## 5.0 Projected Visitation Growth

### 5.1 Historical Assumptions

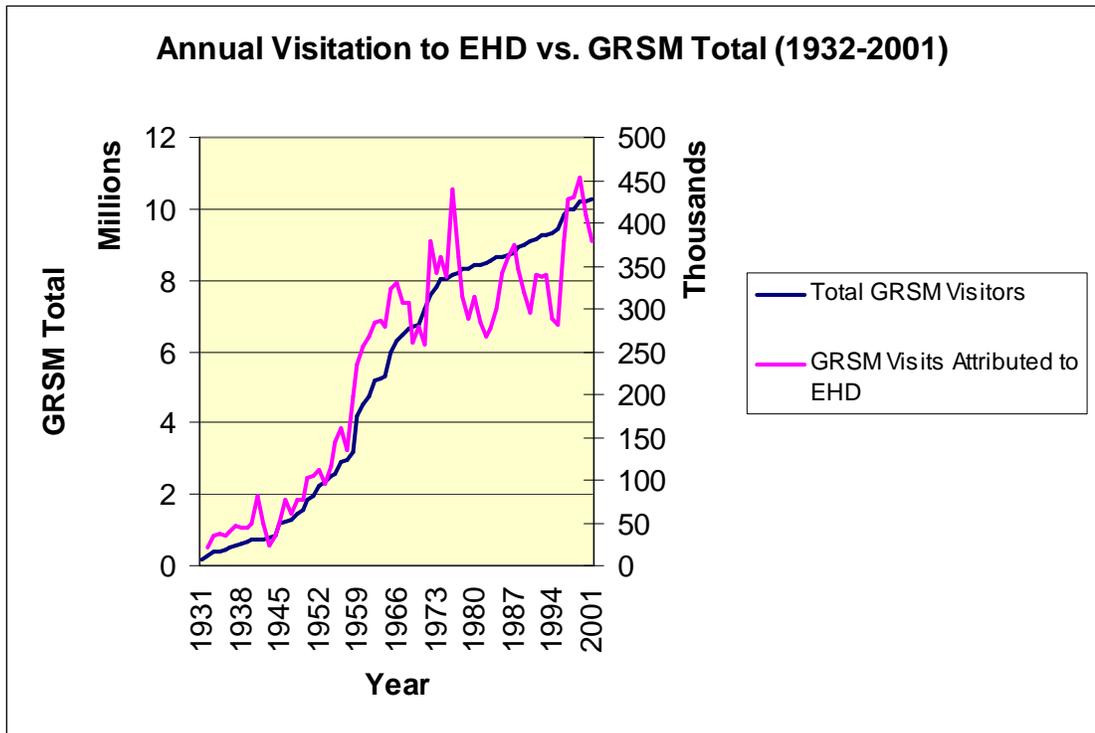
As mentioned early in this report, it is likely that visitation to GRSM will continue to increase for at least the immediate foreseeable future, as it has historically since the Park was officially established. Figure 14 shows the historic pattern of visitation to EHD from the first year that records could be located, 1932, through 2001.

**Figure 14. Historic Annual Visitation Growth for Elkmont (1932–2001)**



Plotting the number of annual visits attributed to EHD against total visits to GRSM by year since 1932, allowing for a standard deviation of (+/- 1), it can be seen that representational factored visitation to EHD fluctuates between approximately 9 and 3 percent of Park-wide visitation (also see Table 2). It should be noted that the visitation estimates for EHD do not include campground totals. To do so, could artificially inflate estimates because of the possibility of double and triple reporting errors. Figure 15 reflects total annual visitation to EHD plotted against total annual visitation for the Park.

Figure 15. Annual Visitation to EHD vs. Total Park Visitation (1932–2001)



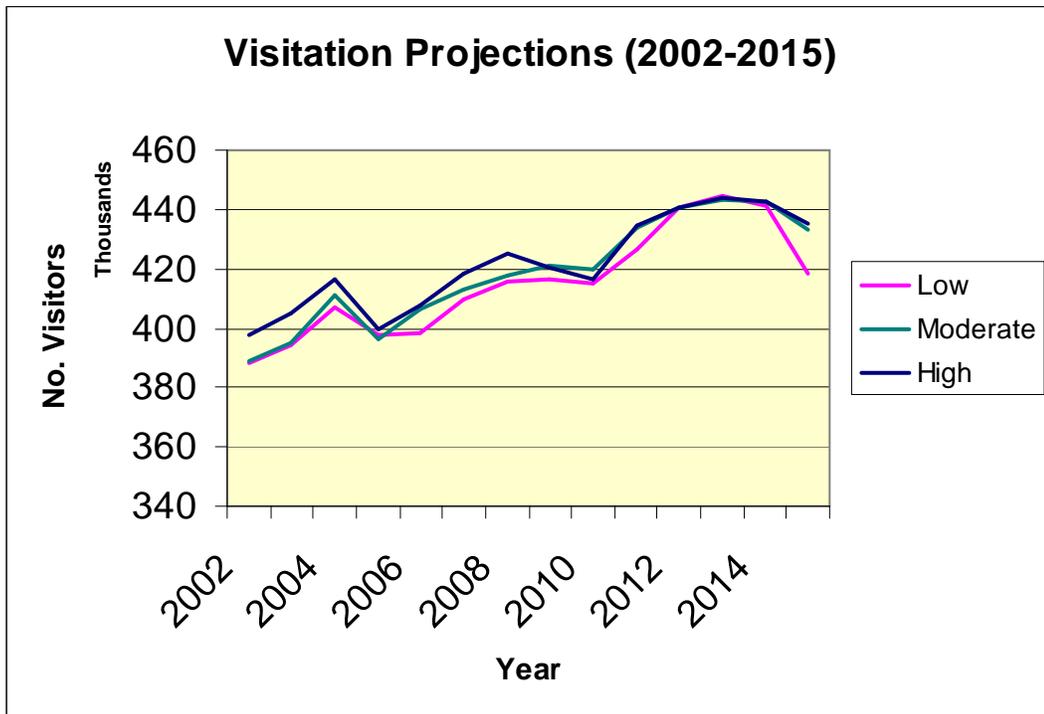
Looking at the complete historical setting of recreation use by visitors to EHD, the annual potential recreation daily benefits, in economic terms, are estimated to be in excess of \$1 million in revenue for GRSM. This is based on the range of available data for campground, hiking, and backcountry visitation used throughout this report. Additional research is needed to ascertain traffic counts and more concise information for visitation patterns within EHD. With additional research using either the travel cost approach or contingent valuation methods, a more complete and accurate estimation of visitor use and recreation benefits could be determined. However, using historical trends and a simple regional analysis model, a general pattern of future visitation growth can be projected. Table 11 reflects high, low, and average projections based on historical visitation patterns.

The proximity of EHD, to the Gatlinburg entrance of the Park and the Sugarlands Visitor Center, combined with the multiplicity of routes and ease of access, have long assured the popularity of the area with Park visitors. Estimates from Table 11 are graphed in Figure 16 to interpret projections for variations and growth in visitation through 2015.

**Table 11. Visitation Projections for EHD (2002–2015)**

Year	Projected Visitation		
	Low	Moderate	High
2002	388,425	389,192	397,365
2003	393,979	394,757	405,021
2004	406,994	410,942	416,695
2005	397,422	396,092	399,657
2006	398,469	406,390	407,610
2007	410,048	412,892	418,260
2008	415,782	417,434	425,240
2009	416,599	421,191	420,349
2010	415,294	419,927	416,148
2011	426,646	433,785	434,305
2012	440,726	440,726	440,814
2013	444,693	443,370	444,124
2014	441,464	442,616	442,674
2015	418,715	433,321	435,488

**Figure 16. Projected Visitation Growth for EHD (2002–2015)**



## 5.2 Projections

It should be noted that visitation projections are based upon current status and visitor use patterns. Visitation may be influenced upwards by major capital improvements to the historic structures and facilities within EHD. These improved facilities, in conjunction with existing natural features, campgrounds, and trail infrastructure, will probably increase current visitation counts with an added emphasis on cultural exhibit visitation as an activity.

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## 6.0 Conclusions

The resources within EHD provide a diversity of high-quality visitor experiences and should be managed so that the needs of users engaged in various activities are balanced to maintain the integrity of the Park visitor experience. Planning for such management requires considering both existing facilities and resources (cultural and natural), as well as projecting future demands and interests of visitors.

Maintaining the recreational, visual, wildlife, and cultural resources that the EHD area provides is important to the local community as well as to those who visit the Park from other areas of the United States. Over the course of GRSM history, the values of the cultural, recreational, and visual resources available within EHD have contributed significantly to the resource education theme of the Park, as well as to the recreational mix. Although the current management plan protects many values, important areas are excluded.

Throughout GRSM are activities for visitors of all ages and interests. EHD represents a relatively compact pocket of the Park in which numerous activities have coexisted historically. From camping to hiking, trout fishing to bird watching and nature viewing, and ranger programs to photography, the area has much to offer. Hiking trips on the trail system that originates or connects from EHD trailheads can range from easy to strenuous and provide anything from half-hour walks to backcountry trips of several days.

Many areas in GRSM play regionally significant roles in the provision of outdoor recreation opportunities and uses. For a number of specified areas, of which EHD is certainly one, recreation is the key role in the system. Recreational activities within EHD have traditionally drawn their meaning from association with and relation to the natural and cultural resources of the area. An opportunity exists for EHD to play a unique and essential role within the broader landscape of cultural and natural heritage by protecting viable samples of both systems. Adding a component to expand the current visitor use experience within EHD is being considered, particularly from the position of the cultural landscape.

Much like GRSM, EHD is an area of integrated components forming a portion of the Park's overall landscape of natural and cultural heritage. The ongoing planning process will help maintain the conservation and recreation values in the various landscape component areas within EHD.

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## 7.0 Glossary of Terms

**Affected environment:** Existing biological, physical, and social conditions of an area that are subject to change, both directly and indirectly, as a result of a proposed human action.

**Alternatives:** Sets of management elements that represent a range of options for how, or whether, to proceed with a proposed project. An environmental assessment analyzes the potential environmental and social impacts of the range of alternatives presented.

**Backcountry:** One or more primitive or wilderness area in a park reached primarily by hiking, boating, or horseback riding.

**Bed:** Refers to the relatively flat or level bottom (substrate) of a body of water, as in a lakebed or riverbed.

**Benign neglect:** A hypothetical management construct of the No Action Alternative. A policy of taking no action instead of managing or improving the situation.

**Best Management Practices:** Effective, feasible (considering technological, economic, and institutional constraints) conservation practices and land- and water-management measures that avoid or minimize adverse impacts to natural and cultural resources. Best Management Practices may include schedules for activities, prohibitions, maintenance guidelines, and other management practices.

**Boundaries:** The term “boundary” or “boundaries” refers to that of EHD, which is marked on the USGS Gatlinburg Quadrangle (7.5 minute series) and is described as follows:

The boundary begins on the south where Meigs Mountain Trail crosses Jakes Creek. It turns north following Jakes Creek and the 2,400-foot contour line and continues east along that line to Bearwallow Branch. The boundary goes down the branch to the Little River and runs along the north side of the Little River and then follows the west side of the nature trail. At the point where the nature trail turns east the boundary goes north to the 2,400-foot contour line and follows that contour line across Cotton Branch to the point where the contour line touches UTM Coordinates 266 Easting and 3950 Northing. The boundary runs along 3950 Northing to Pine Knot Branch and follows it to and across Little River and up the dirt road to the 2,200-foot contour line and follows that contour line to the point shown on the map at southern end of the campground loop then turns due west to the 2,400-foot contour line and follows that contour line to a point shown on the map. It then runs on a straight line south and west to Meigs Mountain Trail and follows the trail to point of beginning on Jakes Creek.

The EHD boundary includes all existing properties associated with EHD. This boundary is enclosed in a quadrilateral whose corners are marked by the following Universal Transverse Mercator (UTM) reference points.

<b>Zone</b>	<b>Easting</b>	<b>Northing</b>
A. 17	265060	3950000
B. 17	266320	3950000
C. 17	267200	3948180
D. 17	266060	3947080
E. 17	265560	3947080

**Buses:** Vehicles carrying 10 or more passengers including commercial tour buses and school buses.

**Campground:** An area of land designated and developed for use as a camp.

**CEQ Regulations:** The Council on Environmental Quality (CEQ) was established by the National Environmental Policy Act (see NEPA) and given the responsibility for developing federal environmental policy and overseeing the implementation of NEPA by federal agencies.

**Cultural landscape:** A reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

**Ecosystem:** An ecosystem can be defined as a geographically identifiable area that encompasses unique physical and biological characteristics. It is the sum of the plant community, animal community, and environment in a particular region or habitat.

**Environmental Assessment (EA):** A public document required under the National Environmental Policy Act (see NEPA) that identifies and analyzes activities that might affect the human and natural environment. An Environmental Assessment is a concise public document that provides sufficient evidence and analysis for determining whether to prepare an EIS, aids an agency's compliance with NEPA when no EIS is necessary, and facilitates preparation of an EIS when one is necessary.

**Facilities:** Buildings and the associated supporting infrastructure such as roads, trails, and utilities.

**Groundwater:** All subsurface water (below soil/ground surface), distinct from surface water.

**Groundwater recharge:** The process involved in the absorption and addition of surface water to the zone of saturation or aquifer.

**Headwaters:** The point or area of origin for a river or stream.

**Management zone:** A geographical area for which management directions or prescriptions have been developed to determine what can and cannot occur in terms of resource management, visitor use, access, facilities or development, and park operations.

**Mitigation:** Activities that will avoid, reduce the severity of, or eliminate an adverse environmental impact.

**National Environmental Policy Act (NEPA):** The federal act that requires the development of an environmental assessment or environmental impact statement for federal actions that have environmental, social, or other impacts.

**Natural processes:** All processes (such as hydrologic, geologic, or ecosystemic) that are not the result of human manipulation.

**National Park Service (NPS):** A Department of Interior (DOI) agency that administers approximately two dozen types of federal land, nationally significant for their scenic, natural, scientific, historical, or archeological interest. The agency was established as a Bureau of the DOI by an Act of Congress, August 25, 1916. NPS does not administer National Forests (U.S. Department of Agriculture/Forest Service), Wildlife Refuges (USDI/Fish and Wildlife Service), or a variety of other lands available for public use.

**Negligible transit:** A brief, incidental entry into a park by passing traffic (vehicular or pedestrian) using NPS-administered grounds, roads, or walkways.

**Nonrecreation overnight stay:** A reportable non-recreation overnight stay includes leaseholders, line shacks for ranchers, and government personnel (other than NPS employees).

**Nonrecreation visit:** A reportable non-recreation visit includes through traffic, persons going to and from inholdings, trades-people with business in the park, and government personnel (other than NPS employees) with business in the park.

**Nonreportable visit:** The entry into a park by NPS employees, their families, concessionaire employees, members of cooperating associations, NPS contractors, and service personnel.

**Prescription:** A guideline that directs the management of a specific area by describing the type and intensity of activities, facilities, and park operations that can and cannot occur. See “management zone.”

**Recreation visit:** The entry of a person onto lands or waters that NPS administers for administrative recreational purposes excluding government personnel, through traffic (commuters), trades people, and persons residing within park boundaries.

**Region:** A NPS administrative subdivision. The seven NPS regions include the following states:

- Alaska (AK) – Alaska
- Intermountain (IM) – Arizona, Colorado, Montana, New Mexico, Texas, Utah, Wyoming
- Midwest (MW) – Arkansas, Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, Oklahoma, South Dakota, Wisconsin
- National Capital (NC) – Washington, DC, with some units in Maryland, Virginia, West Virginia
- Northeast (NE) – Connecticut, Delaware, Maryland, Massachusetts, Maine, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, Virginia, West Virginia (excluding units assigned to National Capital Region in Maryland, Virginia and West Virginia)
- Pacific West (PW) – California, Guam, Hawaii, Idaho, Nevada, Oregon, Washington
- Southeast (SE) – Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Puerto Rico, South Carolina, Tennessee, Virgin Islands

**Riparian area:** The land area and associated vegetation bordering a stream or river.

**River corridor:** The area within the boundaries of a Wild and Scenic River (e.g., the Merced River corridor).

**River protection overlay:** A buffer area within and adjacent to the river that allows for the protection and restoration of natural and aquatic ecosystem processes.

**Threatened and endangered species:** Species of plants and animals that receive special protection under state and/or federal laws. Also referred to as “listed species” or “special-status species.”

**Visits:** The entry of any person, except NPS and service personnel, onto lands or waters administered by NPS. A visit may occur as a recreation visit or a non-recreation visit. A same day reentry, negligible transit, and an entry to a detached portion of the same park on the same-day are considered to be a single visit. Such adjustments are made insofar as practical for noncontiguous parts of the same park. However, visits are reported separately for two contiguous parks.

**Visitor Day:** Twelve visitor hours in a park.

**Visitor Experience and Resource Protection (VERP) framework:** A process developed for NPS to help manage the impacts of visitor use on visitor experiences and resource conditions in National Parks.

**Visitor Hour:** The presence of one or more persons, excluding NPS personnel, in a park for continuous, intermittent, or simultaneous periods of time aggregating one hour (e.g., one person for one hour, two persons for one-half hour).

**Watershed:** The region drained by, or contributing water to, a stream, lake, or other body of water. Synonym: basin or drainage basin.

**Wilderness:** Those areas protected by the provisions of the 1964 Wilderness Act. These areas are characterized by a lack of human interference in natural process.

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