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1999 Finger Lakes State Park Visitor Survey

Project Completion Report

Submitted to

**Missouri Department of Natural Resources
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Executive Summary

The purpose of this study was to describe visitors' socio-demographic characteristics, patterns of use, and satisfaction with park facilities, programs and services at Finger Lakes State Park (FLSP).

An on-site exit survey of adult visitors to FLSP was conducted June, July, August, and September 1999. Two hundred four (204) surveys were collected, with an overall response rate of 68%. Results of the survey have a margin of error of plus or minus 7%. The following information summarizes the results of the study.

Socio-demographic Characteristics

- FLSP visitors were comprised of more males (68%) than females (32%), and the average age of the adult visitor to FLSP was 37.
- Almost half (48%) of the visitors reported a household income of between \$25,000 and \$50,000, and two-fifths (40%) reported having vocational school or some college as the highest level of education completed.
- The majority (88%) of visitors were Caucasian. Three percent (3%) were African American and 6% were Native American. One percent (1%) of visitors reported being Hispanic and 1% reported being of Asian ethnic origin.
- Six percent (6%) of the visitors reported having a disability.

- Eighty-nine percent (89%) of the visitors were from Missouri, 3% were from Illinois, and 3% were from Texas.
- Two-thirds (66%) of the visitors lived within 50 miles of FLSP.

Use-Patterns

- The majority (88%) of visitors drove less than a day's drive (less than 150 miles) to visit FLSP. Of those driving 150 miles or less, over half lived within the immediate vicinity (15 miles) of FLSP. Within Missouri, over half (54%) of the visitors came from Columbia.
- Four-fifths (82%) of FLSP visitors had visited the park before.
- FLSP visitors had visited the park an average of 13 times in the past year.
- Almost three-fourths of the visitors were day-users. Of the visitors staying overnight, 95% stayed in the campground at FLSP. The average number of nights overnight visitors stayed was 2.7 nights.
- The majority of FLSP visitors visited the park with family and/or friends.
- The most frequent recreation activities in which visitors participated were swimming, fishing, camping, viewing wildlife, walking, picnicking, riding ATVs, watching races at the motocross track, and studying nature.

Satisfaction and Other Measures

- Ninety-eight percent (98%) of FLSP visitors were either satisfied or very satisfied overall.
- Of the seven park features, the park signs and picnic areas were given the highest satisfaction ratings and the swim beach was given the lowest satisfaction rating.
- Visitors gave higher performance ratings to the following park attributes: being safe, care of the natural resources, and being free of litter and trash. Disabled visitors also gave a high performance rating to the park for providing disabled accessibility.
- Visitors gave lower performance ratings to the park having clean restrooms.
- Almost half (46%) of the visitors to FLSP felt some degree of crowding during their visit. Of those who felt crowded, the campground and swimming beach were where most felt crowded.
- Visitors who did not feel crowded had a significantly higher overall satisfaction compared to visitors who did feel crowded.
- Over half (55%) of the visitors at FLSP did not give park safety an excellent rating.
- Of those visitors responding to the open-ended opportunity to express their safety concerns (49% of those visitors not giving the park an excellent safety rating), one-third (33%) commented on the dangers of ATVs and motorcycles.
- Although 33% of the visitors felt that nothing specific could increase their feeling of safety at FLSP, 15% did indicate that improved behavior of visitors at FLSP would increase their feeling of safety.
- Visitors who felt the park was safe were more satisfied overall, less crowded, gave higher satisfaction ratings to the seven park features, and gave higher performance ratings to all eight of the park attributes as well.
- Almost two-thirds (62%) of visitors reported that they would support the proposed reservation system.
- Two-thirds (68%) of visitors reported they would support a “carry in and carry out” trash removal system.
- Twenty-two percent (22%) of visitors provided additional comments and suggestions, the majority (34%) of which were positive comments about the park and staff.

Acknowledgements

Conducting and successfully completing a study of this magnitude and complexity could not have been accomplished without the cooperation of many individuals. Almost 2,000 visitors to Missouri State Parks participated in the 1999 Missouri State Parks Visitor Survey. Over 200 visitors to Finger Lakes State Park voluntarily agreed to provide the information upon which this report is based. It is clear from their input that these visitors care very much for the recreation resources in the Missouri State Park System. Their efforts will provide invaluable input into the planning process and providing for more effective and responsive management of these resources.

Many other individuals provided assistance during the 1999 Missouri State Parks Visitor Survey, without whom the study would not have been a success. The following expressions of gratitude are in acknowledgement of their contributions. Special acknowledgement goes to the staff at Finger Lakes State Park for their willingness to accommodate the survey crew during the study period, and also for their assistance during sampling. Many thanks also go to the research assistants who assisted in data collection and the students at the University of Missouri who assisted in computer data entry of the questionnaires. They are: Shane Aumiller, Tucker Fredrickson, Dennis Stevenson, Debra Stevenson, Amy Mahon, Chis Thoele, and Laura Marsch.

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Introduction

NEED FOR RECREATION RESEARCH

In 1939, 15 years after Missouri obtained its first state park, 70,000 visitors were recorded visiting Missouri's state parks (Masek, 1974). Today, the increase in demand for outdoor recreation experiences has given rise to over 16 million visitors who, each year, visit the 80 parks and historic sites in Missouri's state park system (Holst & Simms, 1996). Along with this increase in demand for outdoor recreation experiences are other highly significant changes in outdoor recreation. Some of these changes include a change in the nature of vacations with a trend toward shorter, more frequent excursions; an increasing diversity of participation patterns across groups; an increase in more passive activities appropriate for an aging population; an increased concern for the health of the environment; and a realization of the positive contributions the physical environment has on the quality of one's life (Driver, Dustin, Baltic, Elsner, & Peterson, 1996; Tarrant, Bright, Smith, & Cordell, 1999).

Societal factors responsible for these changes in the way Americans recreate in the outdoors include an aging population; a perceived decline in leisure time and a faster pace of life; geographically uneven population growth; increasing immigration; changes in family structures, particularly an increase in single-parent families; increasing levels of education; a growth in minority populations; and an increasing focus on quality "lifestyle management" (Driver et al., 1996;

Tarrant et al, 1999). These factors and their subsequent changes in outdoor recreation participation have important implications for recreation resource managers, who are now faced with recreation resource concerns that are "...people issues and not resource issues alone (McLellan & Siehl, 1988)." This growing social complexity combined with the changes it has created in outdoor recreation participation have given rise to the need for research exploring why and how people recreate in the outdoors as well as how these individuals evaluate the various aspects of their outdoor recreation experiences.

STUDY PURPOSE

Visitor satisfaction tends to be a primary goal of natural resource recreation managers (Peine, Jones, English, & Wallace, 1999) and has been defined as the principal measure of quality in outdoor recreation (Manning, 1986). Visitor satisfaction, however, can be difficult to define because individual visitors are unique. Each visitor may have different characteristics, cultural values, preferences, attitudes, and experiences that influence their perceptions of quality and satisfaction (Manning, 1986).

Because of these differences in visitors, a general "overall satisfaction" question alone could not adequately evaluate the quality of visitors' experiences when they visit Missouri's state parks and historic sites. For this reason, it is necessary to gather additional information about visitor satisfaction through questions regarding: a) visitors'

socio-demographic characteristics; b) visitors' satisfaction with programs, services and facilities; c) visitors' perceptions of safety; and d) visitors' perceptions of crowding. Thus, the purpose of this study is to gain information, through these and other questions, about the use patterns, socio-demographic characteristics, and satisfaction with park programs, facilities, and services, of visitors to ten of Missouri's state parks.

This report examines the results of the visitor survey conducted at Finger Lakes State Park (FLSP), one of the ten parks included in the 1999 Missouri State Parks Visitor Survey. Objectives specific to this report include:

1. Describing the use patterns of visitors to FLSP during the study period of June through September, 1999.
2. Describing the socio-demographic characteristics of visitors to FLSP.
3. Determining if there are differences in select groups' ratings of park attributes, satisfaction with park features, overall satisfaction, and perceptions of crowding.
4. Determining any differences in select characteristics of visitors who rated park safety high and those who did not.

5. Gaining information about selected park-specific issues.

STUDY AREA

Once an area strip-mined for coal, Finger Lakes State Park provides a successful example of the reclamation of lands for recreation. Ten miles north of Columbia in Boone County, Finger Lakes offers many outdoor recreational opportunities including fishing, canoeing, boating, and swimming in the several finger lakes. As with most state parks, a campground and picnic areas are also to be found in the park, but Finger Lakes' most unique recreational opportunity is not one associated with the majority of Missouri's state parks. The park's once ravaged landscape has become one of the most popular places in which to ride all-terrain-vehicles (ATVs) and off-road-vehicles (ORVs). To accommodate this popularity, the park has many miles of trails specifically designated for ATV and ORV use, as well as a motocross track for races.

SCOPE OF STUDY

The population of the visitor study at FLSP consisted of visitors who were 18 years of age or older (adults), and who visited during the study period June through September 1999.

Methodology

SAMPLING PROCEDURES

A 95% confidence interval was chosen with a plus or minus 5% margin of error. Based upon 1998 visitation data for June, July, August, and September at FLSP, it was estimated that approximately 100,000 visitors would visit FLSP during the period between June 1 and September 30, 1999 (DNR, 1998). Therefore, with a 95% confidence interval and a plus or minus 5% margin of error, a sample size of 400 visitors was required (Folz, 1996). A random sample of adult visitors (18 years of age and older) who visited FLSP during the study period were the respondents for this study.

To ensure that visitors leaving FLSP during various times of the day would have equal opportunity for being surveyed, three time slots were chosen for surveying. The three time slots were as follows: Time Slot 1 = 8:00 a.m. - 12:00 p.m., Time Slot 2 = 12:00 p.m. - 4:00 p.m., and Time Slot 3 = 4:00 p.m. - 8 p.m. A time slot was randomly chosen and assigned to the first of the scheduled survey dates. Thereafter, time slots were assigned in ranking order based upon the first time slot.

QUESTIONNAIRE

The questionnaire used in this study was based on the questionnaire developed by Fink (1997) for the Meramec State Park Visitor Survey. A copy of the questionnaire for this study is provided in Appendix A.

SELECTION OF SUBJECTS

The survey of visitors at FLSP was administered on-site, to eliminate the non-response bias of a mail-back survey. An exit survey of visitors leaving the park was conducted through a systematic sample of every third vehicle exiting the park.

DATA COLLECTION

The surveyor wore a state park t-shirt and was stationed near the contact station at the park. At the survey station, a "Visitor Survey" sign was used to inform visitors of the survey. During the selected time slot, the surveyor stopped every third vehicle and asked every visitor who was 18 years of age and older to voluntarily complete the questionnaire, unless he or she had previously filled one out.

To increase participation rates, respondents were given the opportunity to enter their name and address into a drawing for a prize package and were assured that their responses to the survey questions were anonymous and would not be attached to their prize entry form. Willing participants were then given a pencil and a clipboard with the questionnaire and prize entry form attached. Once respondents were finished, the surveyor collected the completed forms, clipboards, and pencils. Survey protocol is given in Appendix B and a copy of the prize entry form is provided in Appendix C.

An observation survey was also conducted to obtain additional

information about: date, day, time slot, and weather conditions of the survey day; the number of adults and children in each vehicle; and the number of individuals asked to fill out the questionnaire, whether they were respondents, non-respondents, or had already participated in the survey. This number was used to calculate response rate, by dividing the number of surveys collected by the number of adult visitors asked to complete a questionnaire. A copy of the observation survey form is provided in Appendix D.

DATA ANALYSIS

The data obtained for the FLSP study was analyzed with the Statistical Packages for the Social Sciences (SPSS) (SPSS, 1996).

Frequency distributions and percentages of responses to the survey questions and the observation data were determined. The responses to the open-ended questions were listed as well as grouped into categories for frequency and percentage calculations. The number of surveys completed by weekday versus weekend and by time slot was also determined.

Comparisons using independent sample t-tests for each group were also made to determine any statistically significant differences ($p < .05$) in the following selected groups' satisfaction with park features (question 6), ratings of park attributes (question 7), overall satisfaction (question 13), and perceptions of crowding (question 14). The selected groups include:

1. First time visitors versus repeat visitors (question 1).

2. Campers versus non-campers (question 3). Non-campers include both day-users and the overnight visitors who did not stay overnight in the campground at FLSP.
3. Weekend visitors versus weekday visitors. Weekend visitors were surveyed on Saturday and Sunday, weekday visitors were surveyed Monday through Friday.

Other comparisons were made using independent sample t-tests to determine any statistically significant differences in visitors who rated the park as excellent on being safe versus visitors who rated the park as good, fair, or poor on being safe, for the following categories:

1. First time versus repeat visitors.
2. Campers versus non-campers.
3. Weekend versus weekday visitors.

Differences between visitors who rated the park as excellent on being safe versus those who did not were also compared on the following questions: differences in socio-demographic characteristics, perceptions of crowding, measures of satisfaction with park features, measures of performance of park attributes, and overall satisfaction. Chi-square tests were conducted comparing responses between select groups regarding support for a reservation system and support for a "carry in and carry out" trash system. The selected groups include:

1. First time versus repeat visitors.
2. Campers versus non-campers.
3. Weekend versus weekday visitors.

Additional comparisons include:

1. Multiple linear regression analyses to determine which of the satisfaction variables and which of the performance variables most accounted for variation in overall satisfaction.
2. An independent sample t-test comparing overall satisfaction between visitors who felt some degree of crowding and those who were not at all crowded during their visit.

Results

This section describes the results of the Finger Lakes State Park Visitor Survey. For the percentages of responses to each survey question, see Appendix E. The number of individuals responding to each question is represented as "n=."

SURVEYS COLLECTED & RESPONSE RATES

A total of 204 surveys were collected at FLSP during the time period of June, July, August, and September 1999. Table 1 shows surveys collected by time slot. Of the 204 surveys collected, 120 (58.8%) were collected on weekends (Saturday and Sunday) and 84 (41.2%) were collected on weekdays (Monday through Friday). The overall response rate was 68%.

SAMPLING ERROR

With a sample size of 204 and a confidence interval of 95%, the margin of error increases from plus or minus 5% to plus or minus 7%. For this study, there is a 95% certainty that the true results of the study fall within plus or minus 7% of the findings. For example, from the results that 31.6% of the visitors to FLSP during the study period were female, it can be stated that between 24.6% and 38.6% of the FLSP visitors were female.

SOCIO-DEMOGRAPHIC CHARACTERISTICS

Age

The average age of adult visitors to FLSP was 36.5. When grouped into four age categories, 50.8% of the adult visitors were between the ages of 18-34, 39% were between the ages of 35-54, 5.9% were between the ages of 55-64, and 4.3% were 65 or over.

Gender

Visitors to FLSP were more male than female. Male visitors comprised two-thirds (68.4%) of all visitors, while female visitors comprised one-third (31.6%) of all visitors.

Education

The majority (40.3%) of visitors to FLSP indicated they had vocational school or some college as the highest level of education completed. One-third (33%) indicated having completed grade school or high school, while 26.7% indicated having completed a four-year college degree or post-graduate education.

Table 1. Surveys Collected by Time Slot

Time Slot	Frequency	Percent
1. 8 a.m. - 12 p.m.	33	16.2%
2. 12 p.m. - 4 p.m.	110	53.9%
3. 4 p.m. - 8 p.m.	61	29.9%
Total	204	100.0%

Income

Almost half (48%) of the visitors to FLSP reported they had an annual household income of between \$25,000 and \$50,000. Over one-fourth (27.5%) of visitors had an income of less than \$25,000. Less than 20% (15.5%) of visitors had an income of between \$50,001 and \$75,000, and less than 10% (8.8%) had a household income of over \$75,000.

Visitors with Disabilities

Almost six percent (5.8%) of the visitors to FLSP reported having some type of disability that substantially limited one or more life activities or that required special accommodations. Most of the disabilities reported were mobility-impairing disabilities, but other disabilities included heart and kidney disease.

Ethnic Origin

Figure 1 indicates the ethnic origin of FLSP visitors. The vast majority (88.3%) of visitors was Caucasian. Three percent (3.2%) of the visitors were African American, and 6% of the visitors reported being of Native American descent. One percent (1.1%) of visitors reported being Hispanic, and 1.1% of visitors were Asian. Less than one percent (0.5%) reporting being of an “other” ethnic origin.

Residence

Almost 90% (88.8%) of FLSP visitors were from Missouri, while 11.2% of visitors were from out of state including Illinois (2.8%), Texas (2.8%), and three visitors from Great Britain. Two-thirds (65.9%) of the visitors to FLSP lived within 50 miles of the park. Figure 2 shows the residence of visitors by zip code.

Figure 1. Ethnic Origin of FLSP visitors.

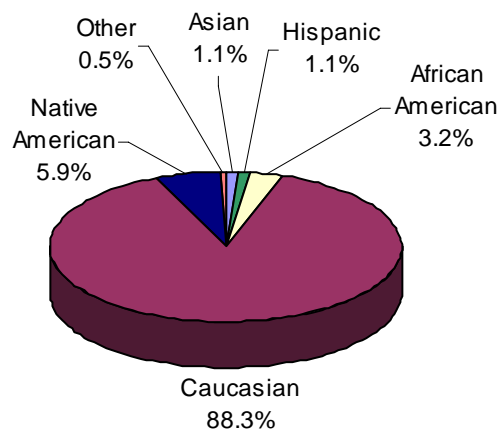
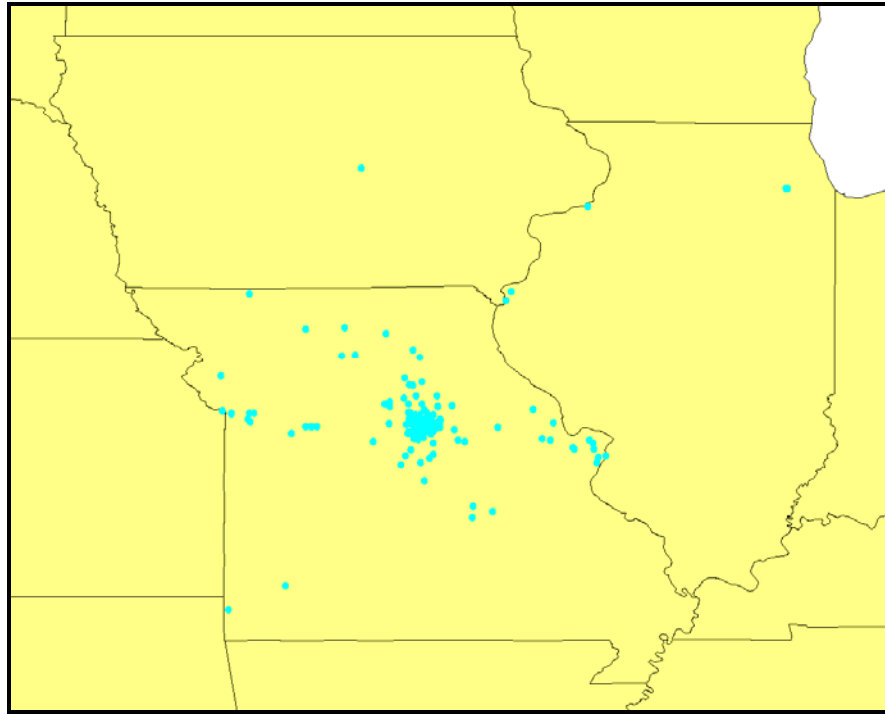


Figure 2. Residence of FLSP Visitors by Zip Code**USE PATTERNS*****Trip Characteristics***

The majority (88.3%) of visitors to FLSP traveled less than a day's drive to visit the park (a day's drive is defined as 150 miles or less, not exceeding 300 miles round trip). Of those traveling less than a day's drive, 58.2% lived in the immediate vicinity (within 15 miles) of the park, including those visitors from Columbia, Harrisburg, and Hallsville. Within Missouri, 53.5% came from Columbia, 5% came from the St. Louis region, and 3.8% came from the Kansas City region.

Almost 60% (59.3%) of visitors either drove cars, vans, jeeps, or sport utility vehicles. Forty percent (40.3%) drove pickup trucks. Twelve percent (12.5%) of the vehicles towed some type of trailer. The average number of axles per vehicle was 2.1, the average number of adults per vehicle was 1.6, and the average number of children per vehicle was 1.9.

Visit Characteristics

Four-fifths (81.8%) of the visitors to FLSP were repeat visitors, with 18.2% of the visitors being first time visitors. The average number of times all visitors reported visiting FLSP within the past year was 12.7 times.

Most of the visitors (72.5%) to FLSP during the study period indicated that they were day-users, with 27.5% indicating that they were staying overnight. Of those staying overnight during their visit, most (94.6%) stayed in the campground at FLSP. Of those camping in the campground at FLSP, 65.3% reported camping in a tent and 34.7% reported staying in an RV, trailer, or van conversion.

Of those reporting overnight stays, 32.5% stayed one night, 35% stayed two nights, 17.5% stayed three, and 15% stayed four or more nights. The average stay for overnight visitors was 2.7 nights. The median number of nights was two nights, indicating that half of the overnight visitors stayed less than two nights and half of the overnight visitors stayed more than two nights. The highest percentage of visitors stayed two nights.

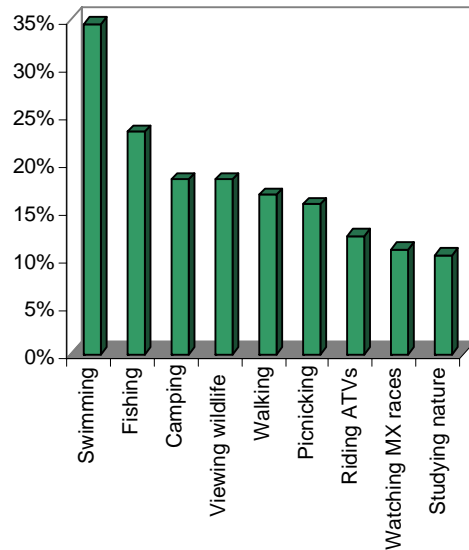
Thirty percent (30.4%) of the visitors to FLSP visited the park with family. Twenty-three percent (22.7%) visited with family and friends, while 27.3% visited with friends, and 15.5% visited the park alone. Less than five percent (3.1%) of visitors indicated visiting the park with a club or organized group.

RECREATION ACTIVITY PARTICIPATION

Respondents to the survey were asked what activities they participated in during their visit to FLSP. Figure 3 shows the percentage of visitor participation in the nine highest activities. Swimming was the highest reported (34.4%), fishing was the second (23.2%), and camping and viewing wildlife were third (18.2%). Walking (16.6%), picnicking (15.6%), riding

ATVs (12.3%), watching races at the motocross (10.9%), and studying nature (10.3%) were next.

Figure 3. Participation in Recreational Activities at FLSP



FLSP visitors reported engaging in other activities, including using the motocross track (8.3%), mountain biking (4.0%), participating in a motocross race (3.6%), canoeing (3.3%), and attending a special event (1.3%). Only 3.3% of visitors reported engaging in an "other" activity, including driving through the park and scuba diving.

SATISFACTION MEASURES

Overall Satisfaction

When asked about their overall satisfaction with their visit, only two percent (2.0%) of visitors reported being dissatisfied or very dissatisfied with their visit. Ninety-eight percent (98%) of FLSP visitors were either satisfied or very satisfied. Visitors' mean score for overall satisfaction was 3.44, based on a

4.0 scale with 4 being very satisfied and 1 being very dissatisfied.

No significant difference ($p < .05$) was found in overall satisfaction between first time and repeat visitors, with mean overall satisfaction scores of 3.46 and 3.43 respectively. Nor was there any significant difference in overall satisfaction between campers and non-campers, with mean overall satisfaction scores of 3.33 and 3.47 respectively. There was also no significant difference between weekend and weekday visitors, with mean overall satisfaction scores of 3.38 and 3.52 respectively.

Satisfaction with Park Features

Respondents were also asked to express how satisfied they were with seven park features. Figure 4 shows the mean scores for the seven features and also for visitors' overall satisfaction. The satisfaction scores for the park signs and

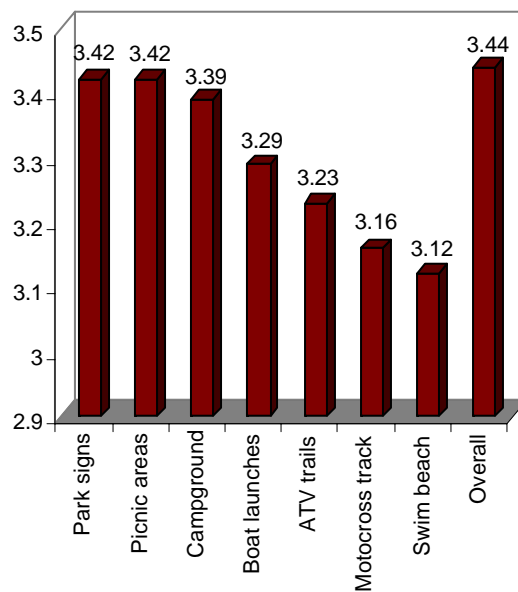
for the picnic areas (3.42) were the highest, with the other scores ranging from 3.39 (campground) to the lowest of 3.12 (swimming beach). A multiple linear regression analysis ($r^2 = .41$) of the seven park features showed that all the variables combined to account for about 40% of the overall satisfaction rating.

No significant differences were found in mean satisfaction ratings of park features between first time and repeat visitors and between campers and non-campers. Weekday visitors, however, were significantly ($p < .05$) more satisfied with the ATV trails than weekend visitors, with satisfaction scores of 3.36 and 3.0 respectively.

PERFORMANCE RATING

Visitors were asked to rate the park's performance of eight select park attributes (question 7): being free of litter and trash, having clean restrooms,

Figure 4. Satisfaction with FLSP Features



upkeep of park facilities, having helpful and friendly staff, access for persons with disabilities, care of natural resources, providing interpretive information, and being safe. Performance scores were based on a 4.0 scale, with 4 being excellent and 1 being poor.

No significant differences were found between first time and repeat visitors and between campers and non-campers and their performance ratings of the eight park attributes. Weekend visitors, however, had a significantly higher ($p=.052$) performance rating (3.38) regarding the park being free of litter and trash than had weekday visitors (3.18). Weekend visitors also had a significantly higher ($p<.05$) performance rating (3.37) regarding the park’s care of the natural resources than weekday visitors (3.15). A multiple linear regression analysis ($r^2=.27$) showed that the eight performance attributes combined to only moderately account for the variation in overall satisfaction.

IMPORTANCE-PERFORMANCE MEASURES

The Importance-Performance (I-P) Analysis approach was used to analyze questions 7 and 12. Mean scores were calculated for the responses of the two questions regarding visitors’ ratings of the performance and importance of the eight select park attributes. Table 2 lists the scores of these attributes, which were based on a 4.0 scale of 4 being excellent and 1 being poor, and 4 being very important and 1 being very unimportant.

Figure 5 shows the Importance-Performance (I-P) Matrix. The mean scores were plotted on the I-P Matrix to illustrate the relative performance and importance rating of the attributes by park visitors.

The I-P Matrix is divided into four quadrants to provide a guide to aid in possible management decisions. For example, the upper right quadrant is labeled “high importance, high performance” and indicates the attributes in which visitors feel the park is doing a good job. The upper left quadrant

Table 2. Mean Performance and Importance Scores for Park Attributes

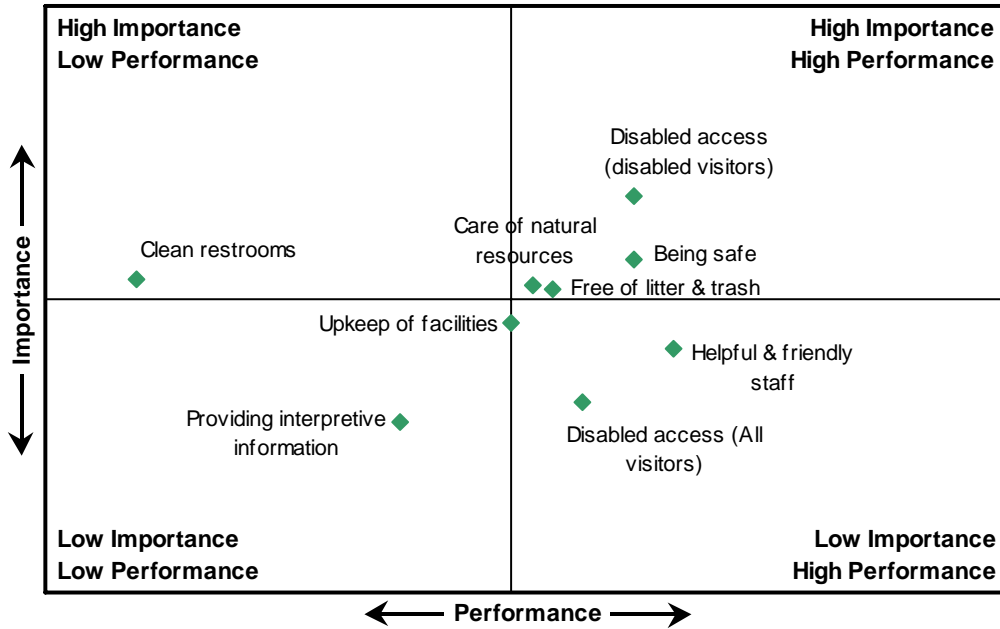
Attribute	Mean Performance Score*	Mean Importance Score*
A. Being free of litter/trash	3.30	3.72
B. Having clean restrooms	2.89	3.74
C. Upkeep of park facilities	3.26	3.65
D. Having helpful & friendly staff	3.42	3.60
E ₁ . Access for persons with disabilities	3.33	3.49
E ₂ . Access for persons with disabilities	3.38	3.91
F. Care of natural resources	3.28	3.73
G. Providing interpretive information	3.15	3.45
H. Being safe	3.38	3.78

E₁ = All visitors

E₂ = Disabled visitors only

* 1 = Poor performance or low importance rating, 4 = excellent performance or high importance rating

Figure 5. Importance-Performance Matrix of Park Attributes



indicates that management may need to focus on these attributes, because they are important to visitors but were given a lower performance rating. The lower left and right quadrants are less of a concern for managers, because they exhibit attributes that are not as important to visitors.

FLSP was given high performance and importance ratings for being safe, care of the natural resources, and being free of litter and trash. Disabled visitors also gave high performance and importance ratings to the park providing disabled accessibility. The characteristic that visitors felt was important but rated FLSP low on performance was having clean restrooms.

CROWDING

Visitors to FLSP were asked how crowded they felt during their visit. The following nine-point scale was used to

determine visitors' perceptions of crowding:

1	2	3	4	5	6	7	8	9
Not at all Crowded		Slightly Crowded			Moderately Crowded			Extremely Crowded

Visitors' overall mean response to this question was 2.4. Half (54.1%) of the visitors to FLSP did not feel at all crowded (selected 1 on the scale) during their visit. The rest (45.9%) felt some degree of crowding (selected 2-9 on the scale) during their visit.

Visitors who indicated they felt crowded during their visit were also asked to specify where they felt crowded (question 15). One-third (37.8%) of the visitors who indicated some degree of crowding answered this open-ended question. Table 3 lists the locations where visitors felt crowded at FLSP. Of those who answered the open-ended question, the majority felt crowded in

Table 3. Locations Where FLSP Visitors Felt Crowded During Their Visit

Location	Frequency	Percent
Campground	15	39.5%
Swimming beach	12	31.6%
On one of the lakes	3	7.9%
Crowded because of ATVs	3	7.9%
Restrooms/shower houses	2	5.3%
Crowded because of weekend	2	5.3%
Trails	1	2.6%
Total	38	100.0%

the campground (39.5%) and at the swimming beach (31.6%).

No significant differences in perceptions of crowding were found between first time and repeat visitors, and between campers and non-campers. Weekend visitors had significantly higher ($p < .001$) perceptions of crowding when compared to weekday visitors. Weekend visitors had a mean crowded score of 2.9, while weekday visitors had a mean crowded score of 1.7.

Crowding and satisfaction

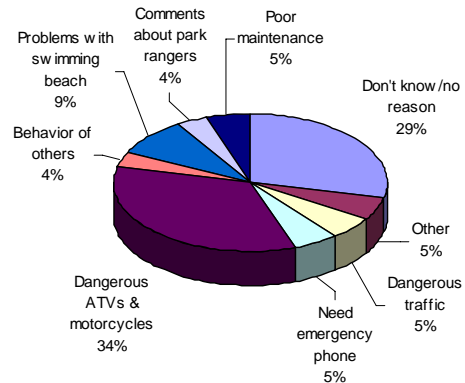
A significant difference ($p = .01$) was found in visitors’ mean overall satisfaction with their visit and whether they felt some degree of crowding or not. Visitors who did not feel crowded had a mean overall satisfaction score of 3.53, whereas visitors who felt some degree of crowding had a mean overall satisfaction score of 3.32.

SAFETY CONCERNS OF VISITORS

Over half (54.9%) of the visitors to FLSP did not rate the park as excellent for safety. Of those, 48.7% noted what influenced their rating. Their comments

were grouped into categories and are shown in Figure 6. Appendix F provides a list of the comments.

Figure 6. Comments from Visitors Not Rating FLSP Excellent on Safety



Almost 30% (28.6%) of the open-ended responses were from visitors who either had no reason for not rating safety excellent, or who felt that no place was perfect and could always improve. One-third (33.9%) of the open-ended responses, however, were from visitors who commented on the dangerous ATVs and motorcycles.

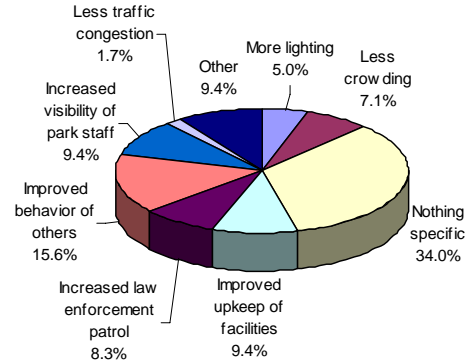
Visitors were also given a list of nine attributes and were asked to indicate

which of the nine would most increase their feeling of safety at FLSP. Although instructed to select only one attribute, many visitors selected more than one; consequently, 180 responses were given by 153 visitors. Figure 7 shows the percentage of responses given by visitors. Most (33.3%) felt that nothing specific would increase their feeling of safety, but 15.3% felt that improved behavior of others would increase safety.

Visitors who felt that more lighting in the park would most increase their feeling of safety were asked to indicate where they felt more lighting was necessary. Over half of those visitors who felt more lighting would increase safety answered this open-ended question, and their comments included more lighting at the campground, more lighting at the swimming beach, more lighting on park roads, and more lighting everywhere. Eleven percent (10.9%) of visitors chose an “other” safety attribute that would most increase their feeling of safety at FLSP. Table 4 shows the frequency and percentage of their responses.

There were no significant differences in the rating of safety by first time visitors versus repeat visitors, by campers versus non-campers, or by weekend versus weekday visitors. There were no

Figure 7. Percentage of Safety Attributes Chosen by Visitors



significant differences ($p < .05$) in safety ratings by socio-demographic characteristics, except safety ratings by gender. Male visitors had a significantly ($p < .05$) higher safety rating (3.46) than female visitors (3.22).

To determine if there were differences in perceptions of crowding, satisfaction with park features, and overall satisfaction, responses were divided into two groups based on how they rated FLSP on being safe. Group 1 included those who rated the park excellent, and Group 2 included those who rated the park as good, fair, or poor.

Group 1 was significantly ($p < .05$) more satisfied overall and significantly less

Table 4. “Other” Safety Attributes That Would Most Increase Safety

Responses	Frequency	Percent
Improve present facilities/provide additional facilities	6	35.3%
Fewer ATVs and ORVs	4	23.5%
Better maintenance	3	17.6%
Provide emergency payphone	2	11.8%
Other	2	11.8%
Total	17	100.0%

crowded than Group 2, with an overall satisfaction score of 3.53 and a mean crowded score of 1.8, whereas Group 2 had an overall satisfaction score of 3.35 and a mean crowded score of 2.8. Group 1 also had significantly ($p < .01$) higher satisfaction ratings for all of the satisfaction features than Group 2, as well as significantly higher ($p < .001$) performance ratings for all of the park attributes.

SUPPORT OF RESERVATION SYSTEM

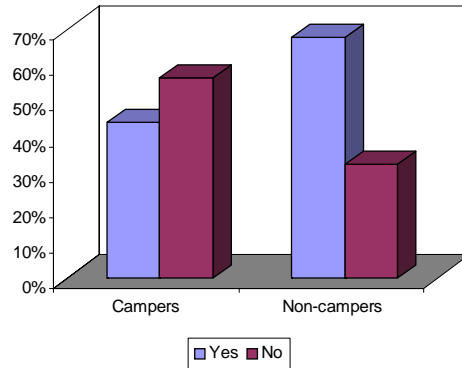
FLSP visitors were asked whether they would support setting aside at least 50% of all campsites in a reservation system, and charging a reservation fee not to exceed \$7.00. Sixty-two percent (62.2%) of visitors would support such a system, while 37.8% reported that they would not.

There was no significant difference between first time and repeat visitors and the percentage of each that would or would not support a reservation system, both more likely to support (61.1% and 62.9% respectively) than oppose (38.9% and 37.1% respectively) a reservation system. Nor was there a significant difference between weekday and weekend visitors, although weekend visitors were more likely to support (66.1%) and weekday visitors were more likely to oppose (56.4%) a reservation system.

There was a significant difference ($p < .05$), however, between campers and non-campers and the percentage of each that would support or oppose the proposed reservation system (Figure 8). Campers were more likely to oppose (56.3%) than support (43.8%) it, whereas non-campers were more likely

to support (67.9%) the system rather than oppose (32.1%) such a system.

Figure 8. Comparison of Support of Reservation System Between Campers and Non-campers



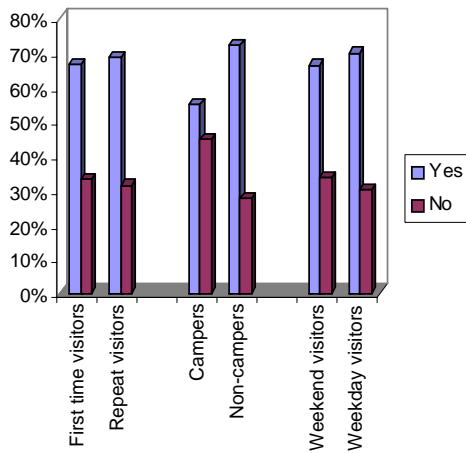
SUPPORT OF “CARRY IN/CARRY OUT” TRASH SYSTEM

FLSP visitors were also asked to indicate whether they would be willing for the park to establish a “carry in and carry out” trash removal system, thereby promoting recycling and reducing the burden of handling trash in the park. Visitors were more likely to support (68.1%) the carry in/carry out trash system than oppose it (31.9%).

There were no significant differences between first time and repeat visitors, and whether each group would support this type of trash system. Both first time and repeat visitors were more likely to support the carry in/carry out trash system than oppose it. No significant difference was found between the percentages of weekend and weekday visitors and whether each would support or oppose this type of trash system. Again, both were more likely to support than oppose the proposed system.

There was, however, a significant difference ($p < .05$) between whether campers and non-campers would support the carry in/carry out trash system. Campers were slightly more likely to support (55.1%) than oppose (44.9%) the proposed system, while non-campers were significantly more likely to support (72.3%) the system rather than oppose it (27.7%). Figure 9 shows the percentage of support or opposition between each group.

Figure 9. Support for “Carry In/Carry Out” Trash System Between Groups



ADDITIONAL VISITOR COMMENTS

Respondents to the survey were also given the opportunity to write any additional comments or suggestions on how DNR could make their experience at FLSP a better one (question 23). One-fifth (21.5%) of the total survey participants responded to this question, with 51 responses given by 44 respondents. The comments and suggestions were listed and grouped by similarities into 7 categories for frequency and percentage calculations. The list of comments and suggestions is found in Appendix G. Table 5 lists the frequencies and percentages of the comments and suggestions by category.

The majority (33.7%) of comments were general positive comments, such as: “I love the place”, “Keep up the good job”, and “Very nice park”. The rest of the comments were categorized based on similar suggestions or comments, such as better maintenance or upkeep, needing improvement to present facilities or providing additional facilities, and other suggestions not falling into any other category.

Table 5. Frequency and Percentage of Comments and Suggestions from FLSP Visitors

Category	Frequency	Percent
1. General positive comments	17	33.3%
2. Better maintenance/upkeep	9	17.7%
3. Improve facilities/provide additional facilities	5	9.8%
4. Better stocking of the lakes	5	9.8%
5. Negative comments about the ATVs	3	5.9%
6. Comments/suggestions about the campground	2	3.9%
7. Other	10	19.6%
Total	51	100.0%

Discussion

MANAGEMENT IMPLICATIONS

The results of this study provide relevant information concerning FLSP visitors. However, the results should be interpreted with caution. The surveys were collected only during the study period of June, July, August, and September 1999; therefore, visitors who visit during other seasons of the year are not represented in the study's sample. The results, however, are still very useful to park managers and planners, because much of the annual visitation occurs during this period.

Satisfaction Implications

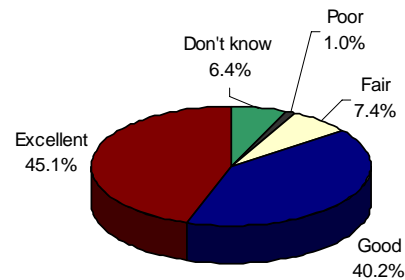
Fifty-one percent (51%) of FLSP visitors reported that they were satisfied with their visit to the park, and 47% reported that they were very satisfied with their park visit. Williams (1989) states that visitor satisfaction with previous visits is a key component of repeat visitation. The high percentage of repeat visitation (82%) combined with their positive comments provide evidence that FLSP visitors are indeed satisfied with their park experience.

Safety Implications

FLSP managers should be commended for providing a park in which visitors feel safe, especially considering the potentially dangerous nature of the recreational activities the park offers. FLSP visitors gave safety a "high importance, high performance" rating on the I-P Matrix. However, over half of the visitors did not give the park an excellent safety rating, although the

majority of those not giving an excellent rating gave a good rating instead (Figure 10). Visitors' safety concerns also influenced their overall satisfaction and perceptions of crowding, as overall satisfaction was lower and perceptions of crowding were higher for visitors with safety concerns (Figure 11).

Figure 10. Safety Ratings of FLSP.

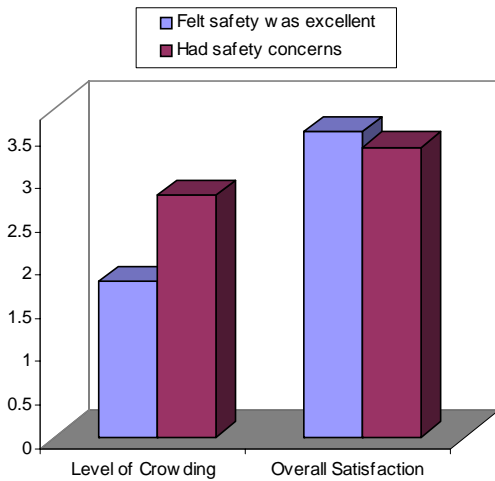


Of particular concern to visitors is their perception of the dangerous traffic caused by ATVs and motorcycles in the park. Also, 34% of visitors felt that improved behavior of others, increased law enforcement patrol, and increased visibility of park staff were attributes that would most increase their feelings of safety at FLSP.

Crowding Implications

Visitors' perceptions of crowding at FLSP were fairly low. Over half (54%) of visitors did not feel at all crowded, and the mean crowded score for visitors was only 2.4. However, visitors' perceptions of crowding did influence their overall satisfaction at FLSP, indicating that visitors' perceptions of

Figure 11. Levels of Crowding and Satisfaction Ratings by Safety Concerns



crowding should be a management concern. Visitors who felt crowded had a significantly lower overall satisfaction than visitors who did not feel crowded (Figure 12).

Crowding is a perceptual construct not always explained by the number or density of other visitors. Expectations of visitor numbers, the behavior of other visitors, and visitors' perception of resource degradation all play a significant role in crowding perceptions (Armistead & Ramthun, 1995; Peine et al., 1999). In addressing the issue of crowding, one option is to review comments relating to crowding and consider options that would reduce crowding perceptions. For example, most of the comments from those visitors who felt crowded listed the campground and swimming beach as where they felt crowded. Further study could determine if crowding perceptions here are due to the number of people or perhaps the behavior of those in the campground or at the swimming beach.

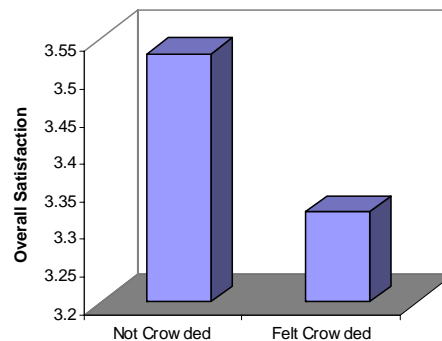
Performance Implications

Visitors felt that clean restrooms were very important but rated FLSP lower in performance in this area. Restroom cleanliness is often given a lower rating by visitors to state parks (Fredrickson & Moisey, 1999), and in this case could be a result of the large number of visitors experienced by FLSP during the peak season.

Implementation of Reservation System

Although almost two-thirds (62%) of the visitors reported that they would support the proposed reservation system, campers (the users most likely to be affected by such a system) responded with a slight majority (56%) who would not support such a system. Further analysis of campers was conducted comparing tent and RV campers and the percentage of each in support of or opposed to a reservation system. RV campers (those campers who might be expected to use the reservation system more) were more likely to oppose (65%) than support (35%) the proposed reservation system and tent campers were also more likely to oppose (53%) than support (47%) the system.

Figure 12. Overall Satisfaction is Lower for Those Who Felt Crowded



Implementation of “Carry In and Carry Out” Trash System

Two-thirds (68%) of visitors favored the proposed trash removal system. Further analysis of the users who might be most affected by this type of trash removal system (picnickers and campers) revealed that a slight majority (55%) of campers supported the proposal as well as a majority (66%) of picnickers.

Conclusion

FLSP managers should be commended in that FLSP visitors are very satisfied with FLSP, as evidenced by the high percentage of visitors who were repeat visitors, and also by their high satisfaction ratings. Visitors’ crowding perceptions were also fairly low.

The results of the present study suggest some important management and planning considerations for FLSP. Even though FLSP visitors rated their visits and the park features relatively high, felt fairly safe, and did not feel very crowded, continued attention to safety, crowding, and facility upkeep and maintenance can positively effect these ratings.

Just as important, on-going monitoring of the effects of management changes will provide immediate feedback into the effectiveness of these changes. On-site surveys provide a cost effective and timely vehicle with which to measure management effectiveness and uncover potential problems.

RESEARCH RECOMMENDATIONS

The results of the present study serve as baseline visitor information of FLSP. The frequency and percentage

calculations of survey responses provide useful information concerning socio-demographic characteristics, use patterns, and satisfaction of FLSP visitors. In addition, the “sub-analysis” of data is important in identifying implications for management of FLSP. (The sub-analysis in the present study included comparisons using Chi-square and ANOVA between selected groups, multiple linear regression, and the Importance-Performance analysis.) Additional relevant information may be determined from further sub-analysis of existing data. Therefore, it is recommended additional sub-analysis be conducted to provide even greater insight to management of the park.

Data collection should be on a continuum (Peine et al., 1999), which is why additional visitor surveys at FLSP should also be conducted on a regular basis (e.g., every three, four, or five years). Future FLSP studies can identify changes and trends in socio-demographic characteristics, use patterns, and visitors’ satisfaction at FLSP.

The methodology used in this study serves as a standard survey procedure that the DSP can use in the future. Because consistency should be built into the design of the survey instrument, sampling strategy and analysis (Peine et al., 1999), other Missouri state parks and historic sites should be surveyed similarly to provide valid results for comparisons of visitor information between parks, or to measure change over time in other parks.

The present study was conducted only during the study period of June, July, August, and September 1999.

Therefore, user studies at FLSP and other parks and historic sites might be conducted during other seasons for comparison between seasonal visitors.

METHODOLOGY RECOMMENDATIONS AND CONSIDERATIONS FOR FLSP AND OTHER PARKS

The on-site questionnaire and the methodology of this study were designed to be applicable to other Missouri state parks. Exit surveys provide the most robust sampling strategy to precisely define the visitor population (Peine et al., 1999); therefore, it is recommended that exit surveys be conducted at other state parks and historic sites if at all possible.

Survey Signage

It is recommended that adequate signage be utilized when collecting surveys on-site. A "Visitor Survey" sign was used in the present study to inform visitors exiting the park that a survey was being conducted. Having the sign for that purpose aided in the workability of the methodology, as many visitors slowed their vehicles and some stopped before being asked to do so. However, the "survey station" often became an "information station" when visitors would stop to ask questions. Many visitors would also engage the surveyor in conversation regarding their feelings about FLSP. For these reasons, an

assistant to help administer the surveys would be helpful.

Survey Administration

Achieving the highest possible response rate (within the financial constraints) should be a goal of any study. To achieve higher response rates, the following comments are provided.

The prize package drawing and the one-page questionnaire undoubtedly helped attain the high response rate in the present study. Continued use of the one-page questionnaire and the prize package drawing is suggested.

The most frequent reason that visitors declined to fill out a survey was because they did not have enough time. Most non-respondents were very pleasant and provided positive comments about the park. Some even asked if they could take a survey and mail it back. One recommendation would be to have self-addressed, stamped envelopes available in future surveys to offer to visitors only after they do not volunteer to fill out the survey on-site. This technique may provide higher response rates, with minimal additional expense. One caution, however, is to always attempt to have visitors complete the survey on-site, and to only use the mail-back approach when it is certain visitors would otherwise be non-respondents.

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Appendix A. Finger Lakes State Park Visitor Survey



Finger Lakes State Park



The Missouri Department of Natural Resources and the University of Missouri are seeking your evaluation of Finger Lakes State Park. This survey is voluntary and completely anonymous. Your cooperation is important in helping us make decisions about managing this park. Thank you for your time.

1. Is this your first visit to Finger Lakes State Park? (Check only one box.)

yes no If no, how many times have you visited this park in the past year? _____

2. During this visit to the park, are you staying overnight? (Check only one box.)

yes If yes, how many nights are you staying at or near the park during this visit? _____
 no (If no, skip to question 4.)

3. If staying overnight, where are you staying? (Check only one box.)

campground in Finger Lakes State Park
 tent RV/trailer/camper
 nearby lodging facilities
 nearby campground
 friends/relatives
 other (Please specify.) _____

4. With whom are you visiting the park? (Check only one box.)

alone family and friends club or organized group
 family friends other (Please specify.) _____

5. Which recreational activities have you engaged in during this park visit?

(Check all that apply.)
 picnicking studying nature riding ATVs
 fishing viewing wildlife participating in a motocross race
 camping canoeing using the motocross track
 swimming walking watching races at the motocross
 boating mountain biking attending a special event
 other (Please specify.) _____

6. How satisfied are you with each of the following in Finger Lakes State Park? (Check one box for each feature.)

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know
a. campground	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. park signs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. picnic area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. swim beach	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. boat launches	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. ATV trails	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. motocross track	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. How do you rate Finger Lakes State Park on each of the following? (Check one box for each feature.)

	Excellent	Good	Fair	Poor	Don't Know
a. being free of litter/trash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. having clean restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. upkeep of park facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. having a helpful & friendly staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. access for persons with disabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. care of natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. providing interpretive information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. being safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. If you did not rate this park as excellent on being safe, what influenced your rating?

9. Which of the following would most increase your feeling of being safe at Finger Lakes State Park? (Check only one box.)

more lighting where? _____
 less crowding
 nothing specific
 improved upkeep of facilities
 increased law enforcement patrol

improved behavior of others
 increased visibility of park staff
 less traffic congestion
 other (Please specify.) _____

PLEASE TURN SURVEY OVER.

10. Do you support setting aside at least 50% of all campsites in a reservation system in order to guarantee a site, and charging a reservation fee not to exceed \$7.00? (Check only one box.) yes no

11. Do you support establishing a "carry in and carry out" system as a means of promoting recycling and reducing the burden of handling trash in this park? (Check only one box.) yes no

12. When visiting any state park, how important are each of these items to you? (Check one box for each feature.)

	Very Important	Important	Unimportant	Very Unimportant	Don't Know
a. being free of litter/trash	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. having clean restrooms	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. upkeep of park facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. having a helpful & friendly staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. access for persons with disabilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
f. care of natural resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g. providing interpretive information	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
h. being safe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

13. Overall, how satisfied are you with this visit to Finger Lakes State Park? (Check only one box.)

Very Satisfied Satisfied Dissatisfied Very Dissatisfied

14. During this visit, how crowded did you feel? (Circle one number.)

1 Not at all Crowded 2 3 Slightly Crowded 4 5 6 Moderately Crowded 7 8 9 Extremely Crowded

15. If you felt crowded on this visit, where did you feel crowded?

16. What is your age? _____ 17. Gender? female male

18. What is the highest level of education you have completed? (Check only one box.)

grade school vocational school graduate of 4-year college
 high school some college post-graduate education

19. What is your ethnic origin? (Check only one box.)

Asian African American Native American/American Indian
 Hispanic Caucasian/White Other (Please specify.) _____

20. Do you have a disability that substantially limits one or more life activities or might require special accommodations?

yes If yes, what disability or disabilities do you have?
 no _____

21. What is your 5-digit zip code (or country of residence, if you live outside the U.S.)? _____

22. What is your annual household income?

less than \$25,000 \$50,001 - \$75,000
 \$25,000 - \$50,000 over \$75,000

23. Please write any additional comments about your park visit or suggestions on how the Missouri Department of Natural Resources can make your experience in Finger Lakes State Park a better one.

THANK YOU FOR YOUR HELP.
 YOU ARE ALWAYS WELCOME IN MISSOURI STATE PARKS.

Appendix B. Survey Protocol

Protocol for Finger Lakes State Park Visitor Survey

Hi, my name is _____, and I am conducting a survey of park visitors for Missouri state parks. The information that I am collecting will be useful for future management of Finger Lakes State Park.

The survey is one page, front and back side, and only takes about 3-5 minutes to complete. Anyone who is 18 or older may complete the survey, and by completing the survey, you have the opportunity to enter your name in a drawing for a prize package of \$100 worth of concession coupons. Your participation is voluntary, and your responses will be completely anonymous.

Your input is very important to the management of Finger Lakes State Park. Would you be willing to help by participating in the survey?

[If no,] Thank you for your time. Have a nice day.

[If yes,]

Here is a pencil and clipboard with the survey attached (for each respondent). Please complete the survey on both sides. When finished, return the survey(s), clipboard(s), pencils, and prize entry form(s) to me.

Thank you for taking time to complete the survey. Your help is greatly appreciated. Have a nice day.

Appendix C. Prize Entry Form

**WIN A PRIZE PACKAGE OF CONCESSION COUPONS
WORTH \$100**

**Enter a drawing to win \$100 worth of gift certificates!
These certificates are good for any concessions at any
state park or historic site. Concessions include cabin
rentals, canoe rentals, boat rentals, restaurant dining,
horseback riding, etc.**

**You may enter the drawing by simply filling out the
back of this entry form and returning it to the surveyor.
Your name, address, and telephone number will be used
only for this drawing; thus, your survey responses will be
anonymous. The drawing will be held November 1, 1999.
Winners will be notified by telephone or mail.
Redemption of gift certificates is based on dates of
availability through August 31, 2000.**

Name: _____

Address: _____

Phone #: () _____

Appendix D. Observation Survey

Date _____ Day of Week _____ Time Slot _____
 Weather _____ Temperature _____ Park/Site _____

	Survey #’s	# of Adults	# of Children	Vehicle Type	Additional Axles	# of Visits Today
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
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25						
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32						
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34						
35						

Time Slot Codes:

Time Slot 1 = 8:00 - 12:00 p.m.
 Time Slot 2 = 12:00 - 4:00 p.m.
 Time Slot 3 = 4:00 - 8:00 p.m.

Weather Codes (examples):

Hot & Sunny Windy
 Cold & Rainy Sunny
 Cloudy Humid

Appendix E. Responses to Survey Questions

Finger Lakes State Park Visitor Survey

1. Is this your first visit to Finger Lakes State Park? (n=203)

yes	18.2%
no	81.8%

If no, how many times have you visited this park in the past year? (n=140)

The responses from this open-ended question were grouped into the following 9 categories:

0	6.4%
1	10.7%
2	10.7%
3	10.7%
4-5	10.7%
6-10	17.0%
11-20	18.5%
21-50	12.2%
50+	2.8%

The average # of times repeat visitors visited the park in the past year was 12.7 times.

2. During this visit to the park, are you staying overnight? (n=102)

yes	27.5%
no	72.5%

If yes, how many nights are you staying overnight at or near the park during this visit? (n=40)

The responses from this open-ended question were grouped into the following 6 categories:

1	32.5%
2	35.0%
3	17.5%
4-6	10.0%
7+	5.0%

The average # of nights respondents visiting the park for more than one day stayed was 2.7.

3. If staying overnight, where are you staying? (n=56)

campground in Finger Lakes State Park	94.6%
tent	65.3%
RV	34.7%
nearby lodging facilities	5.4%
nearby campground	0.0%
friends/relatives	0.0%
other	0.0%

4. With whom are you visiting the park? (n=194)

alone	15.5%	family & friends	22.7%	club or organized group	3.1%
family	30.4%	friends	27.3%	other	1.0%

5. Which recreational activities have you engaged in during this park visit?

picnicking	15.6%	studying nature	10.3%	riding ATVs	12.3%
fishing	23.2%	viewing wildlife	18.2%	participating in a motocross race	3.6%
camping	18.2%	canoeing	3.3%	using the motocross track	8.3%
swimming	34.4%	walking	16.6%	watching races at the motocross	10.9%
boating	6.3%	mountain biking	4.0%	attending special event	1.3%
other	3.3%				

10 visitors participated in an "other" activity. Their responses are as follows:

Diving.	Preparing class field trip.
Driving through.	Preparing for a limnology field trip.
Fireside.	Scuba diving.
Looking over park for ATV trails.	Scuba diving.
Nothing.	Working with MX event.

In addition to percentages of responses, a mean score was calculated for each feature in questions 6, 7, 12, and 13. The score is based on a 4.0 scale with 4 = very satisfied, 3 = satisfied, 2 = dissatisfied, and 1 = very dissatisfied (Q. 6 & 13); 4 = excellent, 3 = good, 2 = fair, and 1 = poor (Q. 7); and 4 = very important, 3 = important, 2 = unimportant, and 1 = very unimportant (Q. 12). The mean score is listed in parenthesis following each feature.

6. How satisfied are you with each of the following in Finger Lakes State Park?

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	Don't Know	
a. campgrounds (3.39)	32.0%	41.6%	0.6%	1.1%	24.7%	n=178
b. park signs (3.42)	42.6%	48.1%	1.6%	1.1%	6.6%	n=183
c. picnic areas (3.42)	33.1%	36.0%	1.1%	1.1%	28.6%	n=175
d. swim beach (3.12)	22.9%	39.9%	8.0%	3.2%	26.1%	n=188
e. boat launches (3.29)	18.0%	33.5%	1.2%	0.6%	46.7%	n=167
f. ATV trails (3.23)	18.1%	29.5%	3.6%	1.2%	47.6%	n=166
g. motocross track (3.16)	17.4%	27.7%	4.3%	2.5%	49.1%	n=161

7. How do you rate Finger Lakes State Park on each of the following?

	Excellent	Good	Fair	Poor	Don't Know	
a. being free of litter/trash (3.30)	42.4%	45.8%	10.8%	1.0%	0.0%	n=203
b. having clean restrooms (2.89)	22.5%	39.5%	18.0%	7.0%	13.0%	n=200
c. upkeep of park facilities (3.26)	33.3%	53.0%	6.6%	1.0%	6.1%	n=198
d. having a helpful/friendly staff (3.42)	43.7%	42.2%	4.5%	0.5%	8.0%	n=199
e. access for persons with disabilities (3.33)	27.3%	31.6%	5.9%	0.0%	35.3%	n=187
f. care of natural resources (3.28)	37.5%	46.0%	7.5%	2.0%	7.0%	n=200
g. providing interpretive information (3.15)	28.9%	34.5%	9.3%	4.1%	23.2%	n=194
h. being safe (3.38)	45.0%	40.1%	7.4%	1.0%	6.4%	n=202

8. If you did not rate this park as excellent on being safe, what influenced your rating?

54 visitors (48.7% of those who did not rate the park as excellent on being safe) responded to this with 56 comments. The 56 responses were divided into 9 categories. Frequencies and percentages of responses in each category are listed.

	<u>Frequency</u>	<u>Percent</u>
1. Dangerous ATVs and motorcycles	19	33.9%
2. Don't know/no reason	16	28.6%
3. Problems with swimming beach	5	8.9%
4. Dangerous traffic	3	5.4%
5. Poor maintenance/upkeep	3	5.4%
6. Need emergency phone	3	5.4%
7. Comments about park rangers	2	3.6%
8. Behavior of others	2	3.6%
9. Other	<u>3</u>	<u>5.4%</u>
Total	43	100.0%

9. Which of the following would most increase your feeling of being safe at Finger Lakes State Park?

180 responses were given by 153 visitors.

	<u>Frequency</u>	<u>Percent</u>
1. More lighting	9	5.0%
2. Less crowding	13	7.1%
3. Nothing specific	61	33.9%
4. Improved upkeep of facilities	17	9.4%
5. Increased law enforcement patrol	15	8.3%
6. Improved behavior of others	28	15.6%
7. Increased visibility of park staff	17	9.4%
8. Less traffic congestion	3	1.7%
9. Other	<u>17</u>	<u>9.4%</u>
Total	180	100.0%

17 visitors indicated that an "other" safety attribute would most increase their feeling of safety. Their answers were grouped into the following 5 categories. Frequencies and percentages of each category are listed.

	<u>Frequency</u>	<u>Percent</u>
1. Improve facilities or provide additional facilities	6	35.3%
2. Problems with ATVs and ORVs	4	23.5%
3. Better maintenance	3	17.6%
4. Provide emergency phone	2	11.8%
5. Other	<u>2</u>	<u>11.8%</u>
Total	17	100.0%

10. Do you support setting aside at least 50% of all campsites in a reservation system in order to guarantee a site, and charging a reservation fee not to exceed \$7.00? (n=188)

yes 62.2%
no 37.8%

11. Do you support a “carry in and carry” out system as a means of promoting recycling and reducing the burden of handling trash in this park? (n=191)

yes 68.1%
no 31.9%

12. When visiting any state park, how important are each of these items to you?

	Very Important	Important	Unimportant	Very Unimportant	Don't Know	
a. being free of litter/trash (3.80)	71.3%	28.2%	0.0%	0.0%	0.5%	n=195
b. having clean restrooms (3.90)	74.4%	24.6%	0.5%	0.0%	0.5%	n=195
c. upkeep of park facilities (3.82)	64.6%	34.9%	0.0%	0.0%	0.5%	n=195
d. having a helpful/friendly staff (3.76)	61.3%	36.1%	1.0%	0.5%	1.0%	n=194
e. access for disabled persons (3.69)	53.4%	31.1%	7.3%	0.5%	7.8%	n=193
f. care of natural resources (3.81)	73.7%	24.2%	1.6%	0.0%	0.5%	n=194
g. providing interpretive information (3.63)	51.3%	36.7%	6.3%	1.0%	4.7%	n=191
i. being safe (3.86)	78.9%	18.6%	1.5%	0.0%	1.0%	n=194

13. Overall, how satisfied are you with this visit to Finger Lakes State Park?

	Very Satisfied	Satisfied	Dissatisfied	Very Dissatisfied	
(Mean score = 3.44)	47.0%	51.0%	1.0%	1.0%	n=196

14. During this visit, how crowded did you feel? (n=196)

On a scale of 1-9, with 1 = Not at all crowded and 9 = Extremely crowded, the mean response was 2.4.

15. If you felt crowded on this visit, where did you feel crowded?

A total of 38 open-ended responses were given. The 38 responses were divided into 7 categories. Frequencies and percentages of responses in each category are listed.

	Frequency	Percent
campground	15	39.5%
swimming beach	12	31.6%
crowded because of ATVs	3	7.9%
on one of the lakes	3	7.9%
restrooms/shower houses	2	5.3%
crowded because of weekend trails	2	5.3%
	<u>1</u>	<u>2.6%</u>
Total	38	100.0%

16. What is your age? (n=187)

Responses were divided into the following 4 categories:

18-34	50.8%	55-64	5.9%
35-54	39.0%	65+	4.3%

(Average age = 36.5)

17. Gender? (n=190)

Female 31.6%
 Male 68.4%

18. What is the highest level of education you have completed? (n=191)

grade school	2.1%	vocational school	11.0%	graduate of 4-year college	12.0%
high school	30.9%	some college	29.3%	post-graduate education	14.7%

19. What is your ethnic origin? (n=188)

Asian	1.1%	African American	3.2%	Native American/American Indian	5.9%
Hispanic	1.1%	Caucasian/White	88.3%	Other	0.5%

20. Do you have a disability that substantially limits one or more life activities or might require special accommodations? (n=189)

yes 5.8%
 no 94.2%

If yes, what disability or disabilities do you have? (n=9)

The following is a list of all responses to this open-ended question.

- A very bad back.
- Arthritis.
- Arthritis.
- Artificial knees.
- Back problems may require eventually.
- Bad kidneys.
- Had heart surgery May 1.
- Partial paralysis and blind.
- Total knee replacement.

21. What is your 5-digit zip code (or country of residence, if you live outside the U.S.)? (n=179)

The states with the highest percentages of respondents were:

Missouri (88.8%)
 Illinois (2.8%)
 Texas (2.8%)

22. What is your annual household income? (n=171)

less than \$25,000	27.5%	\$50,001 - \$75,000	15.8%
\$25,000 - \$50,000	48.0%	over \$75,000	8.8%

23. Please write any additional comments about your park visit or suggestions on how the Missouri Department of Natural Resources can make your experience in Finger Lakes State Park a better one.

44 of the 205 visitors (21.5%) responded to this question. A total of 51 responses were given, and were divided into 7 categories. Frequencies and percentages of responses in each category are listed.

	<u>Frequency</u>	<u>Percent</u>
1. General positive comments	17	33.3%
2. Better maintenance/upkeep	9	17.7%
3. Improve facilities/provide additional facilities	5	9.8%
4. Better stocking of lakes	5	9.8%
5. Negative comments about ATVs	3	5.9%
6. Suggestions about campground	2	3.9%
7. Other	<u>10</u>	<u>19.6%</u>
Total	51	100.0%

Appendix F. List of Responses for Safety Concerns (Q 8)

Responses to Question # 8

If you did not rate this park as excellent on being safe (Question 7, letter h.), what influenced your rating?

Dangerous ATVs and motorcycles

- 4 wheelers riding all over the roads!
- A lot of times the ATV and bikers roar down the public roads.
- Anything can happen when people are recklessly flying around on bikes.
- Areas of overlap between hikers/pedestrians and ATV users.
- ATVs and motorcycles flying through areas where pedestrian/fishermen, etc, are.
- ATVs near main road to campground.
- ATVs on road going too fast.
- ATVs.
- I have seen people hurt in accidents on ATVs.
- Individual behavior on ATVs.
- Motorcycles darting across the front of the vehicle.
- No lifeguard, accidents with motocross, crowded beach.
- Offroad vehicles are not careful enough in campground.
- Some of the motorcyclists are wreckless on the roads.
- The inherent nature of the activities--it's just a dangerous sport, no big deal.
- The mix of ATVs and motorcycles with other activities is always a little dangerous.
- Too many ATVs and careless operators.
- Too many ORVs.
- Type of crowd that use the ATVs.

Don't know/no reason/no place is perfect

- Have not spent time here.
- Haven't been here often enough to know.
- Haven't rode trails yet, but will be back.
- Haven't spent time here.
- I haven't been out here that much, but so far, it's been very safe.
- Just got here.
- Just got here.
- My lack of knowing all info about your safety.
- Nature.
- Never give excellent because nothing's perfect.
- No one is ever too safe.
- No place is perfectly safe!
- Not having extensive knowledge.
- The natural environment is good. Don't need to change. Keep it natural.
- There isn't any way to stop dumb people from getting hurt.
- Wouldn't come here if I didn't feel safe.

Problems with swimming beach

- Cars and trucks being broken into while parked at boat ramps. Need better security.
- Dirty water.
- No lifeguard, accidents with motocross, crowded beach.

- The swimming beach.
- The water was very trashy, hence unsafe.
- There is a lot of trash at the beach.

Dangerous traffic

- Concern for safety on motor vehicles.
- Drivers' speed.
- Too many RVs.

Need an emergency phone

- Need a payphone at MX track.
- Need pay phone at track.
- No phones by motocross track for 911.

Poor maintenance/upkeep

- Glass in parking lot, people not watching for others.
- Keep mx track up.
- Signage and trail maintenance (overgrown.)

Comments about park rangers

- Park ranger was rude.
- Park rangers can't be everywhere at once. If alone, you could get hurt or drown and no one will know.

Behavior of others

- Glass in parking lot, people not watching for others.
- People drink out here.

Other

- It's hard to keep up with all of the people.
- Locked gate?

Appendix G. List of Responses for Additional Comments (Q 23)

Responses to Question #23

Please write any additional comments about your park visit or suggestions on how the Missouri Department of Natural Resources can make your experience in Finger Lakes State Park a better one.

General positive comments

- Close to home, great place to get away.
- Greatly enjoyed.
- I am very satisfied with everything. We love to come out at least every other day.
- I love it here at Finger Lakes! Keep up the great job!!!
- I love the place!
- I thank MODNR for providing such facilities for ATV riding. It's a great asset that many take for granted.
- I'm thankful for the hard work the staff puts forth. I love nature and the outdoors. If we all do our part it will be here for our kids tomorrow.
- It is one of the best parks I've been in. I come from Ally Springs and Round Springs.
- Keep up the good job!
- Keep up the great work! We're lucky to have this park.
- My family and friends have enjoyed each visit here, except for other people smoking.
- Thank you.
- Tidy up a bit. We love this park, but it has really deteriorated over the years. It's a great place to have a decent place to RIDE.
- Top camp host.
- Very good. Very kind campground host.
- Very nice park.
- We enjoy coming to this park.

Better maintenance/upkeep

- Change one way signs to keep left-keep right. Cut brush on trails.
- It was okay but the water was so trashy I wouldn't swim. There should be no sexual activity in the water.
- Maintain ATV trails.
- Make more and maintain trails better like St. Joe state park does. Thanks.
- Management of MX track needs improvement.
- Take better care of the MX track. It's horrible to practice on. It's either knee deep in mud or like asphalt.
- The motocross track is very poorly run and the track is not taken care of. I told this to them today and they didn't agree. You don't have to listen to me on this so check for yourself and see how poor the attendance is and if you would like to compare with the other tracks running that we were going to go to call and check their attendance at 1-217-932-2041. I will drive 2 hours extra next time to go somewhere else.
- The motocross track is very poorly run and the track is not taken care of. I told this to them today and they didn't agree. You don't have to listen to me on this so check for yourself and see how poor the attendance is and if you would like to compare with the other tracks running that we were going to go to call and check their attendance at 1-217-932-2041. I will drive 2 hours extra next time to go somewhere else.

- Tidy up a bit. We love this park, but it has really deteriorated over the years. It's a great place to have a decent place to RIDE.

Improve facilities/provide additional facilities

- A little bit better trails to get to water, more fish stocked.
- More trash cans, bigger place to change clothes and more places to hose off ATVs.
- Please add more beach areas with shade. Clear out all seaweed (if possible) and offer showers and flushing toilets.
- When I come to camp, it seems that 75% of the time I get woken up by ATVs, and there aren't really any walking trails that aren't overrun by ATVs. Maybe if the land was split 50/50 for both activities.
- Wife would like to see restroom at boat ramp.

Better stocking of lake

- A little bit better trails to get to water, more fish stocked.
- Keep lakes stocked with fish.
- Lakes need to be stocked more often. Swimming lake needs to be a trophy lake with a min. 20in. On black bass with a 1 fish limit. Stock hybrid bass in swimming lake!
- More fish.
- Stock your lakes better for fishing purposes. We never catch a thing out here and would love to catch a decent sized fish.

Negative comments about the ATVs

- Get rid of the ATVs.
- I would enjoy the park better if dirt bikes were not given free roam and limited to using half of the park.
- When I come to camp, it seems that 75% of the time I get woken up by ATVs, and there aren't really any walking trails that aren't overrun by ATVs. Maybe if the land was split 50/50 for both activities.

Suggestions about campground

- Construct more campsites and enable reservation system.
- More campsites with electric for trailers and tent...water.

Other

- Carry in carry out is very important.
- Change one way signs to keep left-keep right. Cut brush on trails.
- I'd like to know more on this original plan (if any) to plant non-native and native plants in the area. Also, I'd like to see planting (in mass) of native wild flowers and grasses.
- It was okay but the water was so trashy I wouldn't swim. There should be no sexual activity in the water.
- More advertisement of what you have to offer using consistent patrons demonstrating what they do here when they visit.
- More scuba places.
- My family and friends have enjoyed each visit here, except for other people smoking.
- Park rangers are very rude when enforcing park rules.
- Pay phone at track in case of emergency.

- You need to have flowing water into the lake.