



## Programmatic Clearance Process for NPS-Sponsored Public Surveys

*The scope of the Programmatic Review and Clearance Process for NPS-Sponsored Public Surveys is limited and will only include individual surveys of park visitors, potential park visitors, and residents of communities near parks. Use of the programmatic review will be limited to non-controversial surveys of park visitors, potential park visitors, and/or residents of communities near parks that are not likely to include topics of significant interest in the review process. Additionally, this process is limited to non-controversial information collections that do not attract attention to significant, sensitive, or political issues. Examples of significant, sensitive, or political issues include: seeking opinions regarding political figures; obtaining citizen feedback related to high-visibility or high-impact issues like the reintroduction of wolves in Yellowstone National Park, the delisting of specific Endangered Species, or drilling in the Arctic National Wildlife Refuge.*

**Do not revise any part of this form**

**Submission Date:**

**Project Title:** Monitoring Horseback Rider and Hiker Use at Ozark National Scenic Riverways

### **Abstract** (not to exceed 150 words)

*Horseback riding is a popular recreational activity that takes place in many NPS units. Many outdoor recreation activities, including horseback riding and hiking, may cause impacts to the resources. Potential impacts to trails from these activities include increased muddiness, compaction, rutting, and erosion. Potential social conflicts tend to revolve around shared trail use with other horseback riders, mountain bikers, and/or hikers. Recent empirical studies surrounding recreational horseback and hiking riding present mixed findings. For example, some studies show that horseback riding has more environmental and social impacts than other forms of recreation; whereas other studies show no difference between types of recreational activities. This study was designed to collect data about levels, types, patterns, and impacts of visitor activities along trails in Ozark National Scenic Riverways in Missouri, and thus, help inform the ongoing planning process related to the Roads and Trail Plan.*

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## Project Information

Where will the collection take place? (Name of NPS Site) Ozark National Scenic Riverways

Sampling Period

Start Date: August 2016

End Date: November 2016

### Type of Information Collection Instrument (Check ALL that Apply)

Mail-Back Questionnaire

Face-to-Face Interview

Focus Groups

On-Site Questionnaire

Telephone Survey

Other (list)

### Will an electronic device be used to collect information?

No

Yes - type of device

## Survey Justification:

*Social science research in support of park planning and management is mandated in the NPS Management Policies 2006 (Section 8.11.1, "Social Science Studies"). The NPS pursues a policy that facilitates social science studies in support of the NPS mission to protect resources and enhance the enjoyment of present and future generations (National Park Service Act of 1916, 38 Stat 535, 16 USC 1, et seq.). NPS policy mandates that social science research will be used to provide an understanding of park visitors, the non-visiting public, gateway communities and regions, and human interactions with park resources. Such studies are needed to provide a scientific basis for park planning and development.*

Ozark National Scenic Riverways (OZAR) is in the process of prioritizing the initiatives laid out in their General Management Plan (GMP). The initiative calls for management actions to ensure that the current conditions are more in line with the desired conditions. The trails in the park are, at times, inundated with users, especially at several of the locations this targeted by this study. In fact, trails use can be up to 2000 horseback riders per week which can have negative social (e.g., crowding) and physical (e.g., erosion) impacts. In other locations there is no current data on visitor and recreation use, therefore, this study intentionally targets areas of high, medium and low use to paint a complete picture of use in the park. OZAR managers are interested in having reliable visitor statistics and feedback related to these issues to address operations and efforts concerning the ongoing Roads and Trails planning process at the following specific locations as identified by park managers.

The purpose of this collection is to gather information that will help support the creation of the Roads and Trails management plan for Ozark National Scenic Riverways (OZAR), as outlined in the recently completed General Management Plan (GMP) for the park. This research is intended provide data that will be used by OZAR managers to create plans that will provide sustainable horse and hiker trail use in the park. Without this data, the park will have to rely on outdated and anecdotal knowledge about public perceptions regarding trail use. This study will provide the necessary empirical research that will not only help the managers at OZAR achieve the desired conditions (both social and physical) as outlined in the GMP and the Foundation document but all fulfill the requirements of the planning process.

The survey is necessary to:

- provide input for proposed management actions related to the ongoing Roads and Trails planning effort
- provide feedback about the trails or the modification of existing trail conditions
- evaluate visitor's perceptions of current conditions related to crowding and encounters on the trails
- evaluate visitors reason for visiting and their visitor use experience history to determine if these

variables influence perceptions of crowding and support for different management actions

On-site questionnaires will be used to collect the following information from visitors:

- Individual characteristics
- Trip/visit characteristics
- Individual activities
- Individuals' perceptions of park's management actions
- Individuals' perceptions of recreational user conflicts
- Users' perceptions of trail conditions
- Users' Encounter rates

## Survey Methodology

### (a) Respondent Universe:

The respondent universe for this collection will be a systematic sample of horseback riders and hikers, age 18 and older, visiting the park during the study periods (August 2016 - October 2016). The intercept locations are listed in the table below (Table 1). According to the NPS 2015 Visitor Use Statistics, approximately 1.3 million people visited the park in 2015. Exact number of visitors at each location is not known, but will be counted as part of a separate but related study, with that effort we will know the total number of visitors at each location during the sampling period. The number of respondents are park manager estimates of known areas based areas of high, medium and low use.

**Table 1: Sampling Locations and Users to be Surveyed**

Intercept Location	Recreation Users to be Surveyed
<b>Alley Spring</b>	Horseback Riders
<b>Shawnee Creek</b>	Horseback Riders
<b>CCTR/County Road</b>	Horseback Riders
<b>Susie Nichols Cabin</b>	Horseback Riders
<b>Flying W</b>	Horseback Riders
<b>Rocky Falls</b>	Hikers

### (b) Sampling Plan/Procedures:

Sampling will occur at each of the locations listed in table 1 from 8am to 3pm on all the sampling days. Three separate sampling periods will occur, August (3-6), September (6-9) and October (3-6) for a total of 12 sampling days. At 7 hours per sampling day over the 12 total days at the 6 locations, there will be 504 hours of sampling for this collection. Table 2 provides an example of the proposed sampling schedule for one location. The number of people that we contact will vary depending on the day of the week, the weather, and if there are any special events during the sampling period. However, we expect to collect, on average across all sites, 140 surveys for a total of 840 surveys over the course of the collection periods. To achieve this, we will likely have to contact approximately 1,200 visitors assuming a 70% response rate. This response rate is based on a previous study of recreational users at the park and past experience of the PI's. We will establish intercept sites for each location. All the locations are destinations (e.g. springs, rest areas, bathrooms, historical sites) except the CCTR/County Rd location, and thus for the majority of locations, visitors will have time to take the short survey. All of the intercept locations will be either mid or late trip for the visitors. This will allow visitors to accurately gauge the questions because they will have experienced at least some of the park before completing the survey. A random sample of every 3<sup>rd</sup> visitor will be asked to complete the survey.

Table 2. Sampling Schedule for Shawnee Creek (variation based on time of week, etc.)

Sampling Days	Targeted Number of visitors approached per day	Number of visitor approached per hour	Expected on-site Acceptance Rate	Expected number of People Agreeing to Participate
1 - 8/3	15	2	70%	11
2 - 8/4	15	2	70%	11
3 - 8/5	15	2	70%	11
4 - 8/6	15	2	70%	11
5 - 9/6	25	4	70%	18
6 - 9/7	25	4	70%	18
7 - 9/8	25	4	70%	18
8 - 9/9	25	4	70%	18
9 - 10/3	35	5	70%	25
10 - 10/4	35	5	70%	25
11 - 10/5	35	5	70%	25
12 - 10/6	35	5	70%	25
<b>Total</b>	300			216

**(c) Instrument Administration:**

The initial contact with visitors will be used to explain the study and determine if visitors are interested in participating (see attached script). This should take approximately one minute. If a group is encountered, the survey interviewer will ask the individual within the group who has the next birthday to serve as the respondent for the study. At this point, all individuals approached will be asked the non-response bias questions to collect information that will be used in the final analysis. The visitors that refuse to participate will be asked if they would be willing to take two minutes to respond to non-response bias questions. The number of refusals will be recorded and used to calculate the overall response rate for the collection.

Visitors selected for participating in the survey will be read the following script:

*“Hello, my name is \_\_\_\_\_. I am conducting a survey for the National Park Service to better understand your opinions about your experiences and the park’s services related to horse and hiking trails. Your participation is voluntary and all responses will be kept anonymous. Would you be willing to take a 10-minute survey and give it back to the interviewer?”*

→ If **YES** - then ask, “has any member of your group been asked to participate in this survey before?”

If **“YES”** (already asked to participate) then, *“Thank you for agree to participate in this study we hope that you will return the questionnaire soon. Have a great day.”*

If **“NO”** (have not been previously asked to participate) then,  
*“Thank you for agreeing to participate. Who in your group is at least 18 years old and has the next birthday? Ask them to start the process by answering the non-response bias questions (listed below). Record responses in spaces provided on the tracking sheet. Hand them a survey packet including the questionnaire and a self-addressed stamp*

*envelope.*

→If NO- (soft refusal) - ask them if they would be willing to answer the non-response bias questions (listed below) and then thank them for their time. *Record responses in spaces provided on the tracking sheet.*

→If NO- (hard refusal) - *end the contact and thank them for their time.*

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**(d) Expected Response Rate/Confidence Levels:**

The response rate for each of the collections is based on surveys at similar park sites. Based on the survey sample sizes, there will be 95% confidence that the survey findings will be accurate to within 3-5 percentage points. Thus, the proposed sample sizes will be adequate for bivariate comparisons and will allow for comparisons between study sites and more sophisticated multivariate analysis. For dichotomous response variables, estimates will be accurate within the margins of error and confidence intervals will be somewhat larger for questions with more than two response categories.

**Alley Spring (medium use)** – A total of 200 visitors will be contacted during the sampling period. The number of refusals will be recorded and reported in a survey log, and will be used in calculating the response rate. An expected 140 visitors (70%) will complete and return the survey.

**Shawnee Creek (high use)** – A total of 300 visitors will be contacted during the sampling period. The number of refusals will be recorded and reported in a survey log, and will be used in calculating the response rate. An expected 216 visitors (70%) will complete and return the survey.

**CCTR/County Road (high use)** – A total of 300 visitors will be contacted during the sampling period. The number of refusals will be recorded and reported in a survey log, and will be used in calculating the response rate. An expected 216 visitors (70%) will complete and return the survey.

**Susie Nichols Cabin (low use)** – A total of 100 visitors will be contacted during the sampling period. The number of refusals will be recorded and reported in a survey log, and will be used in calculating the response rate. An expected 70 visitors (70%) will complete and return the survey.

**Flying W (medium use)** – A total of 200 visitors will be contacted during the sampling period. The number of refusals will be recorded and reported in a survey log, and will be used in calculating the response rate. An expected 140 visitors (70%) will complete and return the survey.

**Rocky Falls (low use)** – A total of 100 visitors will be contacted during the sampling period. The number of refusals will be recorded and reported in a survey log, and will be used in calculating the response rate. An expected 70 visitors (70%) will complete and return the survey.

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**(e) Strategies for dealing with potential non-response bias:**

During the initial contact, the interviewer will ask each visitor four questions taken from the survey. These questions will be used in a non-response bias analysis.

- 1) *What type of group are you traveling with today?*
  - 2) *How many people are in your group?*
  - 3) *How did this visit fit into your travel plans? (i.e., primary destination, one of several destinations, or not a planned destination).*
  - 4) *How old is the person who will complete the questionnaire?*
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Responses will be recorded on a log for every survey contact. Results of the non-response bias check will be described in a report and the implications for park planning and management will be discussed

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**(f) Description of any pre-testing and peer review of the methods and/or instrument (recommended):**

The questionnaire format and many of the questions have been used in many survey instruments previously approved by OMB. The questions are taken from the currently approved list of questions in NPS Pool of Known Questions (OMB 1024-0224; Current Expirations Date: 5-31-2019). Variations of the questions have been reviewed by OZAR managers and university professors. The questionnaire was tested on eight voluntary members of the general public for burden length and clarity of the questions. Feedback from the volunteers was incorporated in the final questionnaire.

### **Burden Estimates**

Overall, we plan to approach at least 1,200 individuals during the sampling periods. Among which we anticipate that 840 individuals will agree to complete the survey.

We expect that the initial contact time will be at least one minutes per person (1,200 x 1 minutes = 20 hours). During the initial on-site contact each person will be asked to answer the four questions that will be used for the non-response check. We expect that 360 (30%) visitors will refuse to participate and for those individuals, we will record their reason for refusal.

For those who agree to participate (n= 840) we expect that they will complete and return the survey, with that, an additional 10 minutes will be required to complete and return the questionnaire (840 responses x 10 minutes = 140 hours). The total estimated burden for this collection estimated (initial contact + participants) will be to be 160 hours.

### **Reporting Plan**

The study results will be presented in internal agency reports for NPS managers at the park. Response frequencies will be tabulated and measures of central tendency computed (e.g., mean, median, mode, as appropriate). The reports will be archived with the NPS Social Science Program for inclusion in the Social Science Studies Collection as required by the NSP Programmatic Approval Process. Hard copies will be available upon request.

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