



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: Temporal and spatial distributions of visitor use and associated impacts on natural and social conditions at Buffalo River National River

Abstract (not to exceed 150 words)

Many outdoor recreation activities, such as hiking, boating and horseback riding, may cause impacts to the resources and to the visitor experience. Potential impacts to trails include increased muddiness, compaction, rutting, and erosion. Potential social conflicts tend to revolve around shared use with other visitors, and crowding. With an increased use of parks and protected areas, particularly related to water, understanding impacts of this increased use, both physically and socially, is of critical importance in order to maintain the resources of Buffalo National River and parks like it. This study was designed to collect data about levels, types, patterns, and impacts of visitor activities along trails and on the river at Buffalo National River in Arkansas, and thus, help inform the ongoing and future planning process related trails and the river.

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Project Information

Where will the collection take place? (Name of NPS Site) Buffalo National River

Sampling Period

Start Date: August 2016

End Date: July 2017

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.

Public land management occurs in a complicated environment that bridges social and environmental factors. While scientists and managers usually make decisions based on scientific evidence, visitors and stakeholders often respond to issues based on emotional attachments. Consequently, identifying visitors' perceptions and attitudes towards current issues, current uses or potential management action is critical to anticipate public response and decrease opportunities for conflict. Managers' new knowledge of visitors' opinions provided by this research can directly inform the design of interpretation and public outreach in a very intentional and prescriptive manner. Interpretation and outreach can then be used to influence beliefs, attitudes, and social norms. Addressing and influencing these elements through interpretation can ultimately alter stakeholders' acceptance of management policies.

The overall purpose of this proposed program of research is to gather baseline information that will help support visitor use management (VUM) planning at Buffalo National River (BUFF). This research is intended to inform and guide NPS managers in providing sustainable and appropriate visitor experiences and visitor uses in the park. This study has several objectives:

- 1) Evaluate visitor perceptions of the frequency, type, density, and temporal and spatial distributions of visitor use at BUFF within and across seasons;
- 2) Determine the relationships between use patterns and ecological and social conditions in key unit locations based on visitor perceptions (including but not limited to trails, river access points, visitor attractions, and trailheads); and
- 3) Specifically measures use and preferences for use in the Boxley and Lost Valley area.

Additionally, the survey will compliment and strengthen the work done on the trails as outlined in 1, 2 and 3 above. The managers at BUFF have very little visitor information to make informed decisions. This study will inform an overall visitor use planning effort in the park and specifically site planning efforts in Lost

Valley and Boxley Valley.

Study findings will be used to:

- 1) Provide baseline data for understanding current conditions and for comparison to future monitoring efforts;
- 2) Inform larger Visitor Experience and Resource Protection (VERP) planning processes at BUFF (FY 2017 and PMIS 218361);
- 3) Update existing plans where appropriate [e.g., Final Master Plan (1977); River Use Management Plan (1983); Trail Plan (1987); and Road System Evaluation (1986)];
- 4) Inform potential management action aimed at maintaining high quality visitor experiences and protecting ecological and cultural resources. Potential actions informed by this project may include but are not limited redistributing use, site hardening and infrastructure improvement, permitting and allocation, interpretation design and delivery, and public communication. and
- 5) Provide input for the site planning effort in Boxley and Lost Valley by providing data that will inform potential indicators, thresholds and management strategies.

BUFF managers requested this information collection to inform a larger Visitor Experience and Resource Protection (VERP) planning processes (FY 2017 and PMIS 218361). BUFF managers are interested in having reliable visitor statistics and feedback to address operations and planning issues concerning the ongoing planning process at the following locations (which were chosen because based on park managers input and due to suspected resource (e.g. trail erosion) and social issues (e.g. crowding).

1. Lost Valley
2. Kyles Landing
3. Dillard's Lower Wilderness
4. Rivers Access

To this end, an on-site questionnaires will be used collect the specific information from visitors at each of the intercept locations each of the following locations in the park.

all intercept locations	<ul style="list-style-type: none">• Individual characteristics• Trip/visit characteristics• Individual activities
Lost Valley	<ul style="list-style-type: none">• Individuals' perceptions of park's management actions• Users' perceptions of trail conditions• Users' perceptions of crowding
Kyles Landing and Dillard's River Access	<ul style="list-style-type: none">• Individuals' perceptions of park's management actions• Users' perceptions of crowding
Lower Buffalo Wilderness	<ul style="list-style-type: none">• Individuals' perceptions of park's management actions• Users' perceptions of trail conditions•

Survey Methodology

(a) Respondent Universe:

The respondent universe for this collection will be a systematic sample of horseback riders, hikers and river users, age 18 and older, visiting the park during the study periods (August 2016 - June 2017). The intercept locations are listed in the table below (Table 1). According to the NPS visitor use statistics, approximately 1.4 million people visited the park in 2015. Exact number of visitors at each location is not known, but our sample period across several different seasons, will capture a representative sample for each location. Due to the fact that we do not know the number of people at each location, the numbers provided below (table 2) for number of respondents are estimates based on previous studies, areas of high, medium and low use, and park manager input.

Table 1: Sampling Locations and Users to be Surveyed

Intercept Location	Recreation Users to be Surveyed
Lost Valley	Hikers
Kyles Landing	River users
Dillard's River Access	River user
Lower Wilderness	Horseback Riders

(b) Sampling Plan/Procedures:

Sampling will occur in the parking lot at each of the locations listed in table 1 from 8am to 5pm during the sampling periods: August 8-14 and October 8-14 (2016), April 12-18 and June 15-21 (2017) for a total of 28 sampling days. Table 2 provides an example of the proposed sampling schedule for one week. Although, the number of people that we contact will vary depending on the day of the week, depending upon weather or special events during the sampling period, we expect to collect, on average, 300 surveys across all sites for a total of 1,200 surveys over the course of the collection periods (7 days each). We will establish intercept sites for each location.

A random sample of every 3rd visitor will be asked to complete the survey. In order to accurately gauge experiences, all visitors will be approached at the end of their experience.

Table 2. Example Sampling Schedule

Sampling Day	Targeted Number of visitors approach per day	Number of visitor approached per hour (rounded up)	Expected on-site Acceptance Rate	Expected number of People Agreeing to Participate
1 - Wed.	30	3	50%	15
2 - Thurs.	30	3	50%	15
3 - Fri.	50	6	50%	25
4 - Sat.	100	11	50%	50
5 - Sun.	100	11	50%	50

6 - Mon.	20	2	50%	10
7 - Tues.	20	2	50%	10
Total	350			175

(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 (see item E below). 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 related to your experience at the park today. 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.*

(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. To achieve this, we will likely have to contact approximately 2,400 visitors assuming a 50% response rate. 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.

Lost Valley - 800 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 400 visitors (50%) will complete and return the survey.

Kyles Landing - 600 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 300 visitors (50%) will complete and return the survey.

Dillard's River Access - 800 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 400 visitors (50%) will complete and return the survey.

Lower Wilderness - 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 100 visitors (50%) will complete and return the survey.

(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?*

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.

(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 BUFF 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 a total of 2,400 individuals at all sites during the sampling periods. Among which we anticipate that 1,200 individuals will agree to participate and complete a survey while on site.

We expect that the initial on-site contact time with all individual approached, will be at least one minute per person (2,400 x 1 minute = 40 hours). During the initial contact, we will ask each person to answer the four questions non-response check questions. We expect that 1,200 (50%) visitors will refuse to participate and for those individuals, we record their reason for refusal.

For those who agree to participate we expect that 1,200 will complete and return the survey, with that, an additional 10 minutes will be required to complete and return the questionnaire (1,200 responses x 10 minutes = 200 hours). The burden for this collection is estimated (initial contact + completed surveys) to be 240 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.
