



### Expedited Approval for NPS-Sponsored Public Surveys

1.	<b>Project Title   Submission Date:</b>	Visitor management and transportation system use at Cumberland Island National Seashore	11/21/2008
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2.	<b>Abstract:</b>	The purpose of this study is to gather information that will help support visitor management, carrying capacity, and transportation system decisions at Cumberland Island National Seashore. A quantitative survey of both frontcountry visitors and wilderness visitors will be conducted to: 1) develop baseline information about the levels, types, and distributions of visitor use occurring at this site; 2) provide an exploratory assessment of visitor opinions regarding existing and proposed transportation services; and 3) identify indicators of quality for the visitor experience. The survey will be conducted onsite with visitors who do not receive a wilderness camping permit, and as a mail survey with visitors who do receive a wilderness permit. Approximately 700 surveys will be completed (350 by each group). <small>(not to exceed 150 words)</small>
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#### 3. Principal Investigator Contact Information

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#### 4. Park or Program Liaison Contact Information

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**Project Information**

5. **Park(s) Where Research is to be Conducted:** Cumberland Island National Seashore
6. **Survey Dates:** 11/15/2009 (mm/dd/yyyy) to 11/30/2010 (mm/dd/yyyy)
7. **Type of Information Collection Instrument (Check ALL that Apply)**  
 Mail-Back Questionnaire     On-Site Questionnaire     Face-to-Face Interview     Telephone Survey     Focus Groups  
 Other (explain) \_\_\_\_\_

8. **Survey Justification:** (Use as much space as needed; if necessary include additional explanation on a separate page.)

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, development, operations, management, education, and interpretive activities.

Management Justification: Recent legislation requires the development of a public transportation system within Cumberland Island National Seashore (P.L. 108-447, Sect. 145). The information collected in this study will enhance current park planning and management efforts by determining visitor preferences and use levels for the planned transportation system. Also, little empirical information exists regarding the trip characteristics, needs, and attitudes of visitors to Cumberland Island (CUIS). This research will provide such information and help guide planning efforts to design and operate a transportation system in a manner that protects the quality of the visitor experience while providing visitors greater access to various destinations on the island.

Previous studies conducted on visitor use (or social science-related studies in general) at CUIS are limited. The following studies have been published:

- (1) Brooks, J., R. Warren, M. Nelms, and M. Tarrant. (1999). Visitor attitudes toward and knowledge of restored bobcats on Cumberland Island National Seashore, Georgia. *Wildlife Society Bulletin*, vol. 27, no. 4
- (2) Littlejohn, M. (1999) *Cumberland Island National Seashore Visitor Study, Spring 1998, Report 103*. Cooperative Park Studies Unit, University of Idaho.

These studies were not intended or designed to collect information on wilderness use, carrying capacities, or the soon-to-be-implemented transportation system. No information exists from previous research about experiential indicators of quality, motivations or perceptions of wilderness users, and attitudes toward implementation aspects of the transportation system. The current study will fill these information gaps.

9. **Survey Methodology: (Use as much space as needed; if necessary include additional explanation on a separate page.)**

**(a) Respondent universe:**

The sample universe will be all visitors who are (1) visiting Cumberland Island National Seashore; (2) who are age 18 or older; (3) who visit the park between November 15, 2009 and November 30, 2010 (if frontcountry visitors); and (4) who received a wilderness camping permit during the previous 12 months (if backcountry campers).

**(b) Sampling plan/procedures:**

Approximately 700 visitors to CUIS will be surveyed between November 2009 and November 2010. Half of the surveys (350) will be completed by visitors who received permits to camp in the park's backcountry and wilderness zones. The other half will be completed by day visitors and those camping in developed campgrounds or staying overnight in lodging in the park (referred to as "frontcountry" visitors)..

Frontcountry visitors. Approximately 350 frontcountry visitors to CUIS will complete self-administered surveys on-site between November 15, 2009 and November 30, 2010. A random systematic sampling protocol (e.g., after a random start, asking every  $n^{\text{th}}$  visitor group boarding the ferry for the return trip from the island to the mainland) will be used to select respondents. The survey will be self-administered, although a researcher will be available to assist respondents if needed. One individual 18 years of age or older will be selected from each group to complete the survey. This individual will be chosen from the group by selecting the eligible person with the most recent birthday. If the individual or the group refuses to participate in the survey, then the next eligible group to board the ferry will be asked to participate. Sampling will occur on approximately 21 days during this time period, in 7-day segments. The segments will occur in the fall (November), spring, (April/May), and summer (July/August). The proportion of the surveys collected during each period will equal the proportion of actual visitor use during that timeframe as recorded by the NPS Public Use Statistics Office. All contacts with visitors will be made by research staff from Clemson University and the University of Vermont.

Backcountry/wilderness campers. An almost identical survey will be mailed to approximately 350 Cumberland Island visitors who received a wilderness/backcountry camping permit from the park during the previous year. A list of permit holders and their contact information will be provided by the park. Research staff from Clemson University and the University of Vermont will then use a random systematic sampling protocol (e.g., after a random start, selecting every  $n^{\text{th}}$  permit holder from a list of all permit holders) to choose potential respondents. The wilderness survey will be mailed out in November 2009. Wilderness survey participants will be asked to return the survey by mail in a self-addressed stamped envelope. A follow-up postcard and reminder letter will be sent to those who receive a survey. The administration for this survey is based on Dillman's Tailored Design Method (TDM). The TDM has been shown to increase response rates, improve accuracy, and reduce cost and burden hours. The TDM has been successfully used in over 200 previous NPS studies. A mail method for the wilderness survey is necessary because wilderness use levels at the park are much lower than frontcountry use. Therefore, stationing interviewers on-site to interview wilderness users as they arrive is not cost-effective.

**(c) Instrument administration:**

For the frontcountry visitor survey, park visitors will be approached by university research staff and asked to participate in the study. These survey staff will be on-site during each of the three week-long sampling segments.

The following script will guide the introduction:

*Hi, my name is \_\_\_\_\_. I'm from Clemson University. We're helping the National Park Service gather information to guide visitor use management and development of a transportation system at Cumberland Island National Seashore. On this trip did you have a permit to camp overnight in the park's backcountry or wilderness?*

*If backcountry/wilderness camper: Thank you. I need to talk with visitors who are not backcountry campers.*

*If frontcountry visitor: Would you be willing to fill out a questionnaire about your experience at the Seashore? Participation is voluntary, and your responses will be anonymous. The questionnaire will take about twenty minutes.*

*If "no": OK. Thank you for your time. Have a good day.*

*If "yes": OK. Thank you for agreeing to participate. Here is the survey for you to fill out. Please return it to me when you've completed it.*

The wilderness survey will be distributed by mail. University research staff will send out and receive all wilderness surveys. An initial mailing will be sent to ask for participation in the study by completing and returning an enclosed questionnaire. This will be followed 7 days later by a postcard reminder, a second mailing with replacement questionnaire in another 2-3 weeks, and a final mailing with a replacement questionnaire in another 2-3 weeks. This process follows the TDM described above. The text of each mailing is included in a separate file.

**(d) Expected response rate/confidence levels:**

The completed sample size for the frontcountry visitor survey will be 350. Based on previous experience in conducting similar data gathering, it is expected that 80% of individuals approached will be willing to participate in the survey. [A study of Denali National Park visitors reported a survey response rate of 92%. (Technical Report NPS/CCSOUW/NRTR-2002-04 NPS D-318). A similar study of visitors at Acadia National Park reported a survey response rate of 70% (Manning, Lawson, Valliere, Bacon, & Laven, 2002)]. This suggests that 438 visitors need to be approached and asked to participate in the frontcountry visitor survey.

The completed sample size for the wilderness survey also will be 350. Based on previous experience in conducting similar data gathering, it is expected that 60% of individuals contacted by mail will be willing to participate in the survey. [Dillman (1978, 2007) reviewed response rates from 48 mail surveys and found that response rates averaged 74%. He indicated that response rates have decreased somewhat in recent years, though the degree of decrease was not quantified. Similarly, Hox and Leeuw (1994) reviewed response rates from 45 studies and found an average response rate for mail surveys of 61.3%. Their longitudinal analysis indicated that mail response rates are increasing. This suggests that 583 wilderness/backcountry permit holders will need to be contacted by mail and asked to participate in the study.

Study findings for each survey are estimated to be accurate within 5.3 percentage points, based on a sample size of approximately 350 surveys and using a 95% confidence level.

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

For the frontcountry survey, the number, date, and time of refusals will be recorded and reported on a survey log. Non-response bias will be examined by

comparing selected observable characteristics of the sample population with characteristics observed and recorded in every group contacted (e.g., group type, group size, presence or absence of children). If given, the reasons for refusals (e.g., lack of time, not interested, language, etc.) will also be noted. For the wilderness user survey, respondents and non-respondents will be compared using information available from the permits that serve as the sampling frame (e.g., group size, point of origin, season of visit).

The results of the check for non-response bias will be reported, and implications for interpretation of the results (if any) will be discussed.

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

The questions included in these surveys have been designed and reviewed by the principal investigator, research staff and graduate students, and park and regional staff, and many are similar to questions used in surveys and interviews at other national park areas. Findings from these types of questions have been used by park managers and have been published in the peer-reviewed scientific literature.

10.

**Total Number of Initial Contacts | Expected Respondents:**

Onsite:	438	350
Mail:	583	350

11.

**Estimated Time to Complete Initial Contact | Instrument (mins.):**

1	20
5 (all mailings)	20

1

2.

**Total Burden Hours:**

124
165
Total: 289

13.

**Reporting Plan:**

The results of this information collection activity will be presented in an internal agency report and will be available upon request. Response frequencies, distributions, measure of central tendency (e.g., mean and median), and measures of variance (e.g., standard deviation) will be used to characterize and report survey findings. Where appropriate, t-tests and ANOVA will be used to examine difference in mean survey responses. Such differences will be examined between wilderness and non-wilderness users, however the wilderness and frontcountry samples will not be combined for any analysis. A copy of the technical study report will be archived with the Social Science Program of the National Park Service for inclusion in the Social Science Studies Collection.

## Initial mailing and study participation request

Date

[Insert Clemson and NPS Logo]

«First\_Name» «Last\_Name»

«Address»

«City» «State» «ZipCode»

Dear «First\_Name»,

Enclosed in this mailing is a questionnaire for an important research project being conducted by the Department of Parks, Recreation and Tourism Management at Clemson University. The project is sponsored by the U.S. National Park Service and is intended to help gather information to guide park management and development of a transportation system at **Cumberland Island National Seashore**.

You are being contacted to complete this questionnaire because within the last year you received a permit to stay in the wilderness area of Cumberland Island National Seashore. Your participation in this survey is voluntary, but because you are one of a select number of people randomly chosen to participate, each response is very important to the National Park Service. Your answers will help the National Park Service better understand visitors' desires and attitudes related to Cumberland Island National Seashore and its management.

The time required to complete the questionnaire is approximately 20 minutes. Your responses will be anonymous and your name will never be associated with your answers. Your name and address are used only for follow up purposes in case you misplace or forget to return a questionnaire. After the survey is completed, all of your identifying information will be destroyed.

If you have any questions or concerns about this study or if any problems arise, please contact Dr. Jeffrey Hallo at Clemson University at 864.656.3237 or [jhallo@clemson.edu](mailto:jhallo@clemson.edu).

I truly appreciate your willingness to consider this request and thank you in advance for your help in informing the management of Cumberland Island National Seashore.

[Insert signature]

Jeffrey C. Hallo, Ph.D.

Assistant Professor  
Clemson University

1st follow-up printed on a postcard to all participants

[Insert Date]

[Insert Clemson and NPS Logo]

Dear [Insert personalized formal salutation]:

Recently, we mailed you a questionnaire about your visit to **Cumberland Island National Seashore**. If you have already completed and returned the questionnaire to Clemson University, please accept our thanks. If not, please complete and return the questionnaire at your earliest convenience using the self-addressed and pre-paid business envelope that was provided.

Since you are one of only a select number of Cumberland Island visitors receiving the questionnaire, it is extremely important that you return your completed survey so that your opinions and attitudes about Cumberland Island National Seashore are accurately represented.

If by chance you did not receive the questionnaire, or perhaps misplaced it, please call or email Dr. Jeffrey Hallo at (864) 656-3237 or [jhallo@clemson.edu](mailto:jhallo@clemson.edu) and we will get another one in the mail to you right away. Thank you for your assistance!

[Insert signature]  
Jeffrey C. Hallo, Ph.D.

Assistant Professor  
Clemson University

## 2nd follow-up letter with replacement questionnaire

[Insert Date]

[Insert Clemson and NPS Logo]

Dear [Insert personalized formal salutation]:

About four weeks ago, we sent you a survey about your visit to **Cumberland Island National Seashore**. As of today, we have not yet received your completed questionnaire. We are writing you again because of the significance each questionnaire has to the usefulness to this study. This survey is designed to tell us about YOUR opinions and attitudes concerning Cumberland Island National Seashore. Your responses will help inform the management of the park and help ensure a quality experience for other visitors.

You are one of only a select number of visitors chosen to participate in this study. For the results to be truly representative of the thoughts of visitors like yourself, it is important that each questionnaire be completed and returned. The amount of time required to answer the questions is about 20 minutes.

Your responses are anonymous. Your name will never be placed on the questionnaire itself, and all names and addresses will be destroyed as soon as the data collection is complete.

For questions or clarifications about the survey, please contact Dr. Jeffrey Hallo with the Department of Parks, Recreation and Tourism Management at Clemson University at (864) 656-3237 or [jhallo@clemson.edu](mailto:jhallo@clemson.edu). After you complete the questionnaire, please return it in the postage-paid business reply envelope provided.

Thank your very much for your assistance.

Sincerely,

[Insert signature]  
Jeffrey C. Hallo, Ph.D.

Assistant Professor  
Clemson University



### 3rd follow-up letter with replacement questionnaire

[Insert Date]

[Insert Clemson and NPS Logo]

Dear [Insert personalized formal salutation]:

During the last two months we have sent you several mailings about your visit to **Cumberland Island National Seashore**. Your responses on the enclosed questionnaire will help inform the management of this precious national resource. It is one of your national parks, and we want your opinions about it to be heard.

The study is drawing to a close, and this is the last contact that we will make with you. For results to truly represent the thinking of all visitors it is important that you complete and return your questionnaire in the self-addressed and stamped envelope. **Your opinions matter to us. Please complete and mail the survey today!**

This survey will take about 20 minutes to complete. Your responses are anonymous. Your name will never be placed on the questionnaire itself, and all names and addresses will be destroyed as soon as the data collection is complete. You are free to refuse to answer any of the questions that may make you uncomfortable.

For questions or clarifications about the survey, please contact Dr. Jeffrey Hallo with the Department of Parks, Recreation and Tourism Management at Clemson University at (864) 656-3237 or [jhallo@clemson.edu](mailto:jhallo@clemson.edu). If you have already completed the questionnaire, we appreciate your effort and apologize for sending you more mail.

Finally, we appreciate your willingness to consider this request as we conclude this effort to better understand your opinions and attitudes about Cumberland Island National Seashore.

[Insert signature]  
Jeffrey C. Hallo, Ph.D.

Assistant Professor  
Clemson University