



PROGRAMMATIC REVIEW AND 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.

SUBMISSION DATE: 5/14/2021

PROJECT TITLE: Visitor Sun Protection in the National Parks

ABSTRACT: (not to exceed 150 words)

The National Park Service is concerned about the effects of sunscreen chemicals on aquatic ecosystems, especially coral reefs. Based on summer workshops with the National Park Service, the research team developed a set of "intervention" recommendations that parks can employ to encourage visitors to either wear UPF clothing or environmentally friendly sunscreen. In summer 2021, we would like to test the interventions to see if they are associated with environmentally friendly visitor behavior. We will conduct data collection during the same period at two parks, Kaloko-Honokōhau National Historical Park and Cape Lookout National Seashore. The research findings will be used to inform the design and implementation of Park Service programs nationally.

PRINCIPAL INVESTIGATOR CONTACT INFORMATION:

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PROJECT INFORMATION:

Where will the collection take place? Kaloko-Honokōhau National Historical Park and Cape Lookout National Seashore

Sampling Period Start Date: July 1, 2021

Sampling Period End Date: September 31, 2021

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

- | | | |
|--|---|---|
| ☐ Mail-Back Questionnaire | ☒ On-Site Questionnaire | ☐ Telephone Survey |
| ☐ Face-to-Face Interview | ☐ Focus Groups | ☐ Other (List) |

Will an electronic device be used to collect information? ☒ No ☐ Yes –

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.

Across the National Park Service (NPS), parks with coral reef and other coastal aquatic ecosystems are under immediate threat from stressors such as pollution and increased visitor use and recreational impacts. Scientists have found that some chemicals in sunscreen contribute to coral bleaching, which how coral reefs expel the colorful algae that lives in the corals' tissues. Bleaching doesn't kill coral, but it does leave the coral at risk for infections and mortality. In 2020, a sand and water toxicology study at Kaloko-Honokōhau National Historical Park and Cape Lookout National Seashore found evidence of sunscreen chemical contamination concentrated in areas where visitors swim. Currently, Hawaii and the US Virgin Islands have banned some chemicals that harm coral reefs. however, there are no bans in North Carolina where Cape Lookout National Seashore is located.

Given the growing concern that some sunscreen ingredients may be having a negative impact on corals reefs, research is needed to evaluate the how much park visitors understand about the effects of sunscreen on coastal aquatic ecosystems. The NPS Natural Resource Office of Communications in collaboration with park managers at Kaloko-Honokōhau National Historical Park and Cape Lookout National Seashore requested a visitor use survey to understand visitor awareness of connection between sunscreen use and the effects on the health of coral reefs. The proposed collection will inform the communication efforts about the effects of sunscreen on fragile coral reef ecosystems. The results of the survey will be used to develop materials for parks to use in communication programs about sun protection, sunscreen uses and the impacts on coral reefs.

SURVEY METHODOLOGY

(A) Respondent Universe:

Respondents will consist of adult visitors 18 years and older to coastal sites at Kaloko-Honokōhau National Historical Park and Cape Lookout National Seashore during following the sampling periods:

- Cape Lookout National Seashore July 23-August 5
- Kaloko-Honokōhau National Historical Park August 13-27

(B) Sampling Plan / Procedures:

For this collection, we will conduct a census sample of all adult visitors within the sampling area. The site will be established locations visitor use to access beach sites (Table 1). We plan to collect at least 450 completed surveys in each of the two parks. A 50% refusal rate will require contacting approximately 900 visitors in each park. The sample size estimate is based on the planned statistical analysis (latent class analysis), in which we will evaluate the different types of sun protection audiences in each of the two parks based on visitor behavioral characteristics. We calculated the sample size based on the number of survey questions used within the statistical analysis and an estimation of the number of likely audiences within each park.

The primary investigator will collect the surveys with the assistance of 2-3 graduate students at each site location. Only one site will be sampled at any one time. If we are not meeting the survey quotas within the first week, we adjust the sampling protocols during the second week.

Table 1. Estimated Number of Visitors Contacted During 14-day Sampling Period at Each Park

Survey Locations	Sampling Period	Sampling Days per period	Number of visitors contacted	Anticipated Completed On-site Surveys
Cape Lookout National Seashore				
Shackleford Banks Ferry Landing	July 23-29	7	450	225
Cape Lookout, Lighthouse and Ferry Landing	July 30-August 5	7	450	225
Subtotal		14	900	450
Kaloko-Honokōhau National Historical Park				
Aiopio Fish Trap	August 13-19	7	450	
Aiopio Fish Trap	August 20-26	7	450	
Subtotal		14	900	450
Total		28	1800	900

(C) Instrument Administration:

Between 3-4 researchers--the primary investigator and graduate students--will staff a table at each sampling location. The table will be in an area where visitors pass in order to access the beach. This location will allow the team to survey respondents at the start of their visit when they are likely to have more time to and complete the paper questionnaire. The research team will follow prescribed park and George Mason University COVID-19 protocols during the sampling periods. At each sampling site, there will be a table with a sign that reads "Do you have a few minutes? Ask us how you can help the National Park Service!" Researcher approaching visitors on beach will wear a name tag identifying their GMU affiliation. The respondent will have the opportunity to (1) complete and return the survey before leaving the sampling site, (2) taking the survey and completing it and the researcher will personally collect it at a designated time, or (3) the completed survey can be returned to a designated drop box before the end of sampling day.

Researchers use the following example script when approaching visitors to their participation in the survey:

“Hi! We’re part of a research team from George Mason University. We have been working with the National Park Service to learn about how park visitors protect themselves from the sun. Do you have a time to complete our survey?”

>>If **YES**, the researchers will start by saying: *“This first page provides information about the study. The second section has a number of questions about sun protection. The questions should not take more than 5 minute s of your time to complete. Do you have any questions?”*

>>If **NO**, the researchers will ask if they would be willing to answer the following non-response bias questions”

1. Do you plan on using any of these methods to protect yourself from the sun during your visit today?
 - ☐ Stay in the shade
 - ☐ Wear a baseball cap or sun visor
 - ☐ Wear a hat that shades your face, ears, and neck
 - ☐ Wear a long-sleeved shirt
 - ☐ Wear long pants or other long clothing
 - ☐ Use sunscreen
 - ☐ -Other
 - ☐ Do not plan on using sunscreen)
2. If you use sunscreen today ... What is the brand and SPF number?

(D) Expected Response Rate / Confidence Level:

Based on previous research experience with this method and as indicated above, we estimate that at least 50% (n=900) of all visitors contacted during each sampling period will agree to participate in the on-site survey. We expect 90% (n=811) of those who do not agree to participate in the on-site survey to answer the non-response bias questions with roughly 89 visitors contacted will completely refuse to participate in any part of the collection. The completed on-site surveys is expected to yield a confidence level of 95% with a margin of error within each period and overall, of +/-5%.

Table 2. Anticipated Onsite Survey Response Rates

Location	Total Number of Visitor Contacts)	Completed Onsite Surveys (50% of contacts)	Refusals (50% of contacts)	Completed Non-Response Surveys (90% of soft refusals)	Hard Refusals (10% of soft refusals)
Shackleford Banks Ferry Landing, Cape Lookout National Seashore	450	225	225	203	22
Cape Lookout, lighthouse and ferry landing, Cape Lookout National Seashore	450	225	225	203	22
Aiopio Fish Trap, Kaloko-Honokōhau National Historical Park	900	450	450	405	45
Total	1,800	900	900	811	89

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

As described above in the recruitment script, all non-respondents will be asked the following two questions about their sun protection choices.

1. Do you plan on using any of these methods to protect yourself from the sun during your visit today?

- ☐ Stay in the shade
- ☐ Wear a baseball cap or sun visor
- ☐ Wear a hat that shades your face, ears, and neck
- ☐ Wear a long-sleeved shirt
- ☐ Wear long pants or other long clothing
- ☐ Use sunscreen
- ☐ -Other
- ☐ Do not plan on using sunscreen)

2. If you use sunscreen today ... What is the brand and SPF number?

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

The survey questions include variations of those asked in previous social science surveys on visitor recreation activities and sun protection behaviors that have been published in peer-reviewed academic literature. The survey questionnaire was pre-tested for time and readability with 8 members of the public who visit beaches in coastal areas. These individuals were recruited online and received a paper version of the survey with instructions to print and completing. They were asked to record the time taken to complete the survey and asked about any problems they experienced in understanding the questions. Based on the feedback from the reviewers longer versions of questions were removed or revised to reduce the average respondent burden. The results reduced the burden estimate from 8 minutes to 6 minutes per response.

BURDEN ESTIMATES

The combined estimated totals for the two collection periods for this collection are as followed: 900 completed Survey and Respondent Burden for on-site survey: 165 hours (see Table 3). We expect that contact time will include at least 1 minute per person to establish participation and to answer any questions the respondent may have and then an additional five minutes to complete the on-site survey (900 respondents x 11 minutes =165 hours).

For the non-response bias check, we expect that in addition to the one-minute initial contact, it will take an additional minute to complete the non-response questions for visitors who do not agree to participate in the on-site survey (811 respondents x 2 minutes = 27 hours). The burden for the remaining visitors completely refusing to participate in the collection will not be estimated due to the de minimis nature of their participation. Respondents who agree to participate will answer the non-response bias questions as part of their on-site survey and will have no extra time added to their burden. Therefore, the total burden for the on-site survey will be 192 hours

Table 3. Burden Estimates

	Completed Responses	Completion Time * (minutes)	Burden Hours (rounded up)
On-site Survey*	900	11	165
On-site non-response survey	811	2	27
Total burden requested under this ICR:	0		00

* Initial contact time of one minute is added to the time to complete the surveys

REPORTING PLAN:

We will deliver a report electronically with the findings to the National Park Service and conduct a 1-2 hour webinar for park staff from the NPS Natural Resources Office of Communications, Kaloko-Honokōhau National Historical Park, and Cape Lookout National Seashore within 2 months after the completion of the data collection. The report will include a description of the demographics of the samples from each park and any potential for bias based on the non-response assessment. Results will include frequencies of the questionnaire responses and an audience analysis of visitors according to their behaviors and other self-reported characteristics.

The report will be archived with the NPS Social Science Program for inclusion in the Social Science Studies Collection as required by the NPS Programmatic Review Process. If approved by NPS, we will publish the results in a peer-reviewed journal.

NOTICES

Privacy Act Statement

General: This information is provided pursuant to Public Law 93-579 (Privacy Act of 1974), December 21, 1984, for individuals completing this form.

Authority: National Park Service Research mandate (54 USC 100702)

Purpose and Uses: This information will be used by The NPS Information Collections Coordinator to ensure appropriate documentation of information collections conducted in areas managed by or that are sponsored by the National Park Service.

Effects of Nondisclosure: Providing information is mandatory to submit Information Collection Requests to Programmatic Review Process.

Paperwork Reduction Act Statement

We are collecting this information subject to the Paperwork Reduction Act (44 U.S.C. 3501) and is authorized by the National Park Service Research mandate (54 USC 100702). This information will be used by The NPS Information Collections Coordinator to ensure appropriate documentation of information collections conducted in areas managed by or that are sponsored by the National Park Service. All parts of the form must be completed in order for your request to be considered. We may not conduct or sponsor and you are not required to respond to, this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number. OMB has reviewed and approved The National Park Service Programmatic Review Process and assigned OMB Control Number 1024-0224.

Estimated Burden Statement

Public Reporting burden for this form is estimated to average 60 minutes per collection, including the time it takes for reviewing instructions, gathering information and completing and reviewing the form. This time does not include the editorial time required to finalize the submission. Comments regarding this burden estimate or any aspect of this form should be sent to the Information Collection Clearance Coordinator, National Park Service, 1201 Oakridge Dr., Fort Collins, CO 80525.
