



## 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:**12/11/2024

**PROJECT TITLE:** Saguaro National Park Natural Soundscapes Study

### **ABSTRACT: (not to exceed 150 words)**

*Recently, The National Park Service Natural Sounds and Night Skies Division (NSNSD), in collaboration with Leave No Trace, published a series of Soundscape Guidelines encouraging visitors to minimize noise and attend to natural soundscapes while in park settings. To date, no study has tested the efficacy of these guidelines and visitor perception of this type of intervention. Park managers recognize the importance of strategies to safeguard soundscapes; however, they acknowledge their need to understand the effects of signage that encourages visitors to "listen" and "reduce noise" on visitor behaviors and experiences. This study will utilize a field experiment in Saguaro National Park (SAGU) to test messaging outcomes on the physical soundscape and visitor behaviors. This study will also examine visitor experiences with the soundscape in SAGU and preferences and attitudes towards soundscape management. Additionally, a mapping survey will assess which park areas are considered acceptable or unacceptable for visitor noise.*

### **PRINCIPAL INVESTIGATOR CONTACT INFORMATION:**

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## PROJECT INFORMATION:

**Where will the collection take place?** Saguaro National Park

**Sampling Period Start Date:** 3/20/2025-

Sampling Period End Date: 4/26/2025

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

Mail-Back Questionnaire

Face-to-Face Interview

On-Site Questionnaire

Focus Groups

Telephone Survey

Other (List)

Will an electronic device be used to collect information?

No

Yes personal computers or electronic devices

## 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.*

Although the NPS has a solid reputation for measuring and monitoring natural, ambient, and human-caused sound levels in parks for more than 25 years, there is an emerging need for new studies that specifically focus on visitor's experiences, perceptions, and attitudes related to sounds and management interventions related to noise. Recently, The National Park Service Natural Sounds and Night Skies Division (NSNSD), in collaboration with Leave No Trace, published a series of Soundscape Guidelines that encourage visitors to minimize noise and attend to natural soundscapes while in park settings. To date, no study has tested the efficacy of these guidelines and visitor perception of this type of intervention. A fundamental goal of the NSNSD is to protect, maintain and restore natural soundscape resources throughout the National Park System. Using the most innovative science and technology NSNSD works to develop new approaches to safeguard natural sounds and identify management solutions to restore these resources. Park managers recognize the importance of strategies to safeguard soundscapes; however, they acknowledge their need to understand the effects of signage that encourage visitors to "listen" and "reduce noise" on visitor behaviors and experiences.

This study will examine visitor experiences with the soundscape in Saguaro National Park (SAGU) and preferences and attitudes toward soundscape management. Additionally, a participatory mapping survey will assess which park areas are considered acceptable or unacceptable for visitor noise. For example, visitors will be asked to mark where on a map of the park it is acceptable to hear music playing from speakers. Outcomes from this study will be used to inform National Park managers, specifically the NSNSD, how soundscape messaging can be used to encourage visitors be cognizant of and reduce human-created noise and visitor perceptions of different approaches to soundscape management.

## SURVEY METHODOLOGY

**(A) Respondent Universe:**

All adult, recreational users (18 years and older) visiting SAGU from March 20, 2025- April 26, 2025

**(B) Sampling Plan / Procedures:**

This study will use a Qualtrics-based survey facilitated through the University of New Hampshire. Recruitment will be performed by onsite researchers. The study will take place within SAGU. Data collection among visitors will take place from March 20 to April 26, 2025 from 9:00 AM to 7:00 PM at two popular trailheads within the park. These trailhead locations were selected because they serve as the most reliable locations for recruiting a representative sample of visitors who are hiking, backpacking, using the day-use picnic sites, etc. We plan to set up Leave No Trace Soundscape Guideline messaging signs during half of the sampling days and take down the signs during the other half of the sampling days. Sampling will be temporally stratified over five hours with half of the sampling days taking place from 9:00 AM to 2:00 PM and the other half from 2:00 PM to 7:00 PM. We will have two research assistants sampling at two locations simultaneously. We will recruit one adult per group. Therefore, we will sample 6 days per week, at two locations, over five weeks, recruiting three participants per hour, resulting in 30 people being recruited per day and 900 visitors recruited in total.

**Table 1. Example Schedule During a Sampling Period.**

Survey Locations	Conditions	Dates	Sampling Days	Number of Visitor Contacts	Surveys Completed
King Canyon Trail Head	No Soundscape Sign	March 20-31 , 2025	7	225	157
King Canyon Trailhead	Soundscape Sign	April 1-26, 2025	7	225	157
Ridge View Trailhead	No Soundscape Sign	April 1-26, 2025	8	225	158
Ridge View Trailhead	Soundscape Sign	March 20-31, 2025	8	225	158
<b>Totals</b>			<b>30</b>	<b>900</b>	<b>630</b>

**(C) Instrument Administration:**

During the sampling period, trained surveyors will ask every 3rd visitor/group exiting the sampling location if they would be willing to participate in a visitor survey. Visitors who are unwilling or unable to participate in the survey will be asked two questions that will be used to assess non-response bias and thanked for their consideration. Initial contact with visitors who are willing to participate, and who have not previously participated, will be used to explain the purpose of the study and to provide instructions. This should take approximately 1 minute. At the end of the initial contact the surveyor will hand the visitor a laminated (re-usable) copy of the questionnaire and will instruct them to provide verbal responses that will be recorded by the surveyor using a tablet computer.

The research assistant will use the following script to solicit participation:

*Hello, my name is \_\_\_\_\_. I am a researcher at University of New Hampshire. Managers here at Saguario are interested in how visitors respond to a variety of sounds in the park and soundscape*

*management. I am asking a random sample of visitors to take a short survey that will gather information about perceptions of different sounds in the park. Your participation is voluntary and your responses will be anonymous. This should only take about 15 minutes to complete. Would you be willing to participate?"*

**If NO:** "Would you mind if I ask you two questions?"

- What is the primary activity you are planning to do during your visit?
- How many people were in your personal group today, including you?

Thank you for your response. This will help us to know a little about visitors experience the park. I hope you enjoy your visit."

**If YES:** "Thank you. Who in your group (who is at least 18 years old) has the next birthday? Would you be willing to participate in the study?"

Have you or anyone in your group already taken this survey at any time during your visit?  
(anyone taking the survey will be deemed ineligible at this point)

Once eligibility is established, the surveyor will provide the instructions for completing the survey and will begin the process.

**(D) \Expected Response Rate / Confidence Level:**

A total of 900 visitors will be approached during the sampling period. Based upon a 70% respondent rate, we expect to receive a total of 630 completed surveys. Of the 270 individuals who decline to participate, we expect 70% (n=189) to complete the non-response survey, and the other 30% (n=81) to refuse entirely.

**Table 2. Anticipated Onsite Survey Response Rates**

Total Number of Visitor Contacts)	Completed Onsite Surveys (70% of contacts)	Soft Refusals (30% of contacts)	Completed Non-Response Surveys (70% of soft refusals)	Hard Refusals (30% of soft refusals)
<b>900</b>	630	270	189	81

Previous studies conducted in National Park locations have elicited similar response rates (for example: Stack et al., 2011; Lelaina et al., 2011; Taff et al., 2014). Additionally, experts in the field have concluded that the estimated sample size, given this unique and under-studied user-group, typically allows generalization with a 95% confidence interval that the survey findings will be accurate to within ±5 percentage points.

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

The surveyors will capture observational information in the survey log from interactions with visitors that do not agree to participate:

- time and day of contact,
- number of adults and children in the group, and
- potential language barrier
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We anticipate that 30% (n=270) of all visitors contacted will refuse to complete the full survey, however of those we expect that at least 189 (70% of refusals) visitors will agree to answer two questions taken directly from the survey that will serve to evaluate any non-response bias. The questions to be used are:

- *What is the primary activity you are planning to do during your visit?*
- *How many people were in your personal group today, including you?*

The data from these questions and the observational data collected during the intercept (outlined above) will be used to determine any non-response bias. Any implications of non-response bias will be outlined in the final report and discussed with NPS managers and staff.

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

The questionnaire format and variations of a majority of the questions have been used in NPS survey instruments previously approved by OMB. More than 80% of the questions are from the approved NPS Pool of Known Questions with minor site-specific and program-specific alterations.

The questions included in the survey instrument were reviewed and pretested to estimate burden and ensure survey clarity by the following:

- Research staff and graduate students, scientists in the Recreation Management and Policy Department at University of New Hampshire with expertise in survey research, and
- SAGU Management Team, and
- NSNSD Management Team

**BURDEN ESTIMATES**

We anticipate contacting a total of 900 individuals, resulting in a total of 819 completed responses (630 visitor surveys and 189 non-response surveys) for a total burden of 161 hours.

On-site Survey: Of the 900 visitors we intercept across the sampling locations, we expect 70% (n=630) to agree to participate in the survey. The survey will take 14 minutes to complete, plus an additional 1 minute for the initial contact, resulting in a total burden of 158 hours.

Non-response Survey: Of those individuals intercepted who decline to participate (n=270), we expect 70% (n=189) to agree to complete the non-response survey. The non-response survey will take one minute to complete, including the initial contact and answering the 2 non-response questions, resulting in a total burden of three hours.

**Table 3. Burden Estimates**

	Completed Responses	Completion Time * (minutes)	Burden Hours (rounded up)
On-site Survey*	630	15	158
On-site non-response survey	189	1	3
<b>Total burden requested under this ICR:</b>	<b>819</b>		<b>1610</b>

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

**REPORTING PLAN:**

The study results will be presented in an internal agency report for the NPS NSNSD. Univariate summary statistics will be provided, as well as comparative statistics between visitors who were exposed to the Soundscape Guideline messages and those who were not. The report will be archived with the NPS Social Science Program for inclusion in the NPS Social Science Studies Collection as required by the NPS Programmatic Approval process. Hard copies will be available upon request.

**References:**

Marin, L., Newman, P., Manning, R., Vaske, J., Stack, D. (2011). Motivation and acceptability norms of human-caused sound in Muir Woods National Monument. *Leisure Sciences*. 133(2): 147-161.

Stack, D., Newman, P., Manning, R., Kristrup, K. (2011). Reducing visitor noise levels at Muir Woods National Monument using experimental management. *Acoustical Society of America*. 129 (3): 1375-1380.

Taff, D., Newman, P., Lawson, S., Bright, A., Marin, L., Gibson, A., Archie, T. (2014). The role of messaging on acceptability of military aircraft sounds in Sequoia National Park. *Applied Acoustics*. 84: 122-128.

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## 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 80630.

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